

PRODUCT CATALOGUE

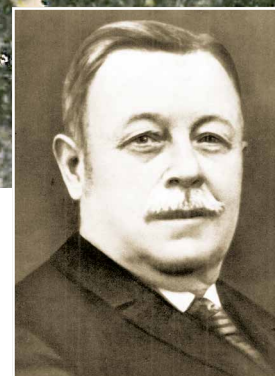
LED Light Fittings

2021/23

Light Management
Explosion-Proof Light Fittings
Dust- and Waterproof Light Fittings
High Bay Light Fittings
Outdoor Light Fittings
Emergency Light Fittings

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SCHUCH — A COMPANY WITH TRADITIONS

CHRONICLE

2. March 1895

A few years after the invention of the incandescent lamp, Adolf Schuch founded the company Adolf Schuch Elektrotechnische Fabrik in Worms at the river Rhein. He started the production of waterproof porcelain lamp holders for incandescent lamps, as well as waterproof porcelain hand lamps with protective glass for local breweries, tanneries and chemical plants.

1906

Production of first street light fittings.

1910

The first explosion-protected mining light fittings were delivered to coal mines in the Ruhr region, the Saarland and South Africa.

1929

Explosion-protected light fittings were the basis of the whole manufacturing program. SCHUCH became a pioneer for explosion-protected light fittings.

1940

Large parts of the factory buildings are destroyed by the war. Continuation of production in alternative building.

21. February 1945

Destruction of all company premises and alternative buildings as a result of intense bombing of Worms.

1945 -1948

Recovery of production. Launch of an improvised manufacturing program for night lamps, desk lamps, workplace and shop lamps, due to deficiency in raw materials.

1948

The production of explosion-protected light fittings, street light fittings and industrial and special-purpose light fittings of all types was restarted.

1949

Production of first light fittings for fluorescent tubes, as well as street light fittings for high pressure mercury lamps.

1952 - 1953

Fiberglass-reinforced polyester was used for the first time to produce housings for moisture-proof, explosion-protected and street light fittings.

Introduction of own production of so-called "PREPREG" (preimpregnated fibres), as well as construction of an

in-house moulding pressroom to produce fiberglass-reinforced polyester housings.

1953

First approval to use explosion-protected linear light fittings for single-pin fluorescent tubes

1957

As a result of the expansion of production demand, the company enlarged its working and storage areas by more than 14,000 m².

1962

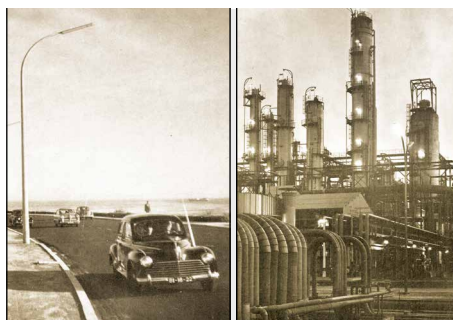
The new plant II on the outskirts of worms got erected.

1964

The production was mostly moved into a new modern plant in the Mainzer Strasse in Worms, which included GRP pressing, mechanical workshops and a fully automatic powder-coating line.

1969

New plant expansion to the total of 40,000 m². SCHUCH achieved a deep vertical integration and extensive technologies for design and production of highly-protected technical light fittings.





1972

Start of production of the legendary 161/162 series waterproof light fittings. A major milestone in the Company's history.

1975

A foamed polyurethane gasket was used in waterproof light fittings for the first time.

1986

Production of first waterproof light fittings completely made of polycarbonate.

1988 - 1989

World's first approval to use an explosion-protected linear light fitting for a 2-pin fluorescent tube. SCHUCH became a pioneer for modern explosion-protected linear light fittings.

1995

Company's 100th Anniversary
First time certification of quality management system according to the new standard DIN ISO 9001.

1999

The production area of explosion-proof luminaires is subject to particularly strict monitoring by the Physikalisch Technische Bundesanstalt (PTB). In an audit, the SCHUCH quality management system is



tested and certified according to the new standard DIN EN / IEC 80079-34.

After 2000

The start of extending the standard manufacturing program, as well as special industry solutions for various application conditions in the industry.

2002

LED technology is revolutionizing lighting. From 2002, SCHUCH concentrated its development activities in all product areas on energy-efficient LED solutions.

2005 - 2009

An almost complete range of LED lights is created within a few years and successfully launched to the market.

2011

The LED range is complete with the introduction of the first ex-protected LED lights.

2014 - 2019

A phase of extensive investments begins, in which production capacities will be expanded in many areas by 2019, new production technologies will be introduced and energy-efficient renovations will be carried out according to the most modern, environmentally friendly aspects.



2016/2019

Lighting becomes smart: Introduction of the LIMAS light management system and so-called RFL lights, which are suitable for easy retrofitting of a light management system.

2019

SCHUCH deals intensively with the influence of so-called harmful gases on LED lights. The RESISTANT luminaire range develops from this.

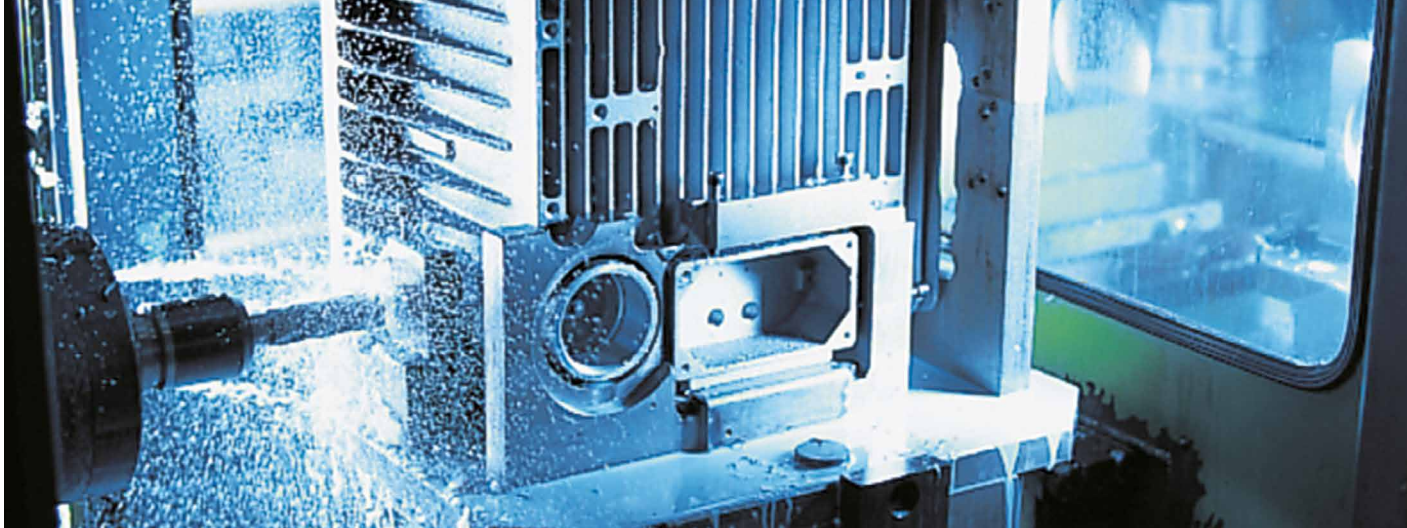
2020

125 years of SCHUCH
Competent, innovative and with passion for excellent lighting!

2021/22

On our way to becoming a climate-neutral company, we are reaching the next milestone with the installation of our new photovoltaic system with an electricity production of 350,000 kWh p. a. and the planned expansion up to approx. 900,000 kWh p. a..





SCHUCH: Quality, Consistency, Future-oriented

EVERYTHING FROM A SINGLE SOURCE

From design to final assembly: the company located in Worms performs all the light fitting design, testing and production stages.

SCHUCH engineers use advanced CAD systems to design new light fittings as well as special thermal simulation programs in order to reach optimal temperature control for each LED light fitting. This is a decisive factor for LED service life and, therefore, it is one of the most important quality parameters of a good LED light fitting. Deep vertical integration in the light fitting production is typical for SCHUCH.

Die forming and cutting, bending and welding of metal parts and housings are performed using modern machining centers and welding robots in mechanical manufacturing.

A modern environment-friendly powder coating unit is used to paint metal light fittings with varnish of a standard or customized color.

Since 1955, all light fittings made of fiberglass-reinforced polyester are produced in a separate pressroom and then provided with polyurethane/silicone gaskets in a fully automated dispensing system.

The tools required for forming, bending and pressing are produced in the in-house tooling workshop.

Careful manual assembly of light fittings is performed in several assembly departments. Finally, each light fitting undergoes specific functional test.

The moulding of explosion-proof LED boards and the ultra sonic welding of gas-tight LED lights are the latest manufacturing processes used in the Worms plant, which further extends SCHUCH's know-how.

Constant quality controls and internal audits at all production levels ensure the high quality standard of all SCHUCH lights.

Continuous quality control and internal audits at all production stages ensure a high quality standard for all SCHUCH light fittings.

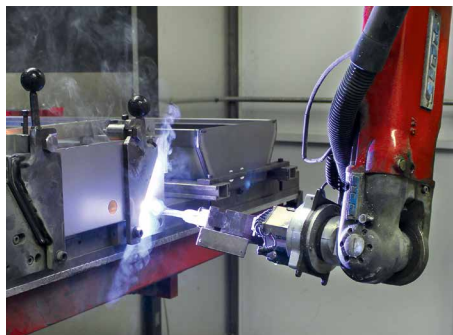
Light fittings, their components and materials are thoroughly tested in our own measuring laboratories, accredited by testing bodies.

Along with the lighting measurements, determination of luminous flux and representation in light distribution curves, light fittings are checked for emitted interferences and noise immunity in accordance with EMC Directive 2004/108 EC and the Electromagnetic Compatibility Act.

Dust- and water chambers are used to check IP rating of the light fittings, including sealing tests underwater.

Heat measurements to check the maximum admissible ambient temperature, low temperature tests and material ageing tests performed in climatic chambers, especially for explosion-protected light fittings, finish the Test Program for SCHUCH light fittings.

This comprehensive philosophy allows SCHUCH to control all processes and to react promptly and flexibly to changing requirements.



EXCELLENT QUALITY

SCHUCH light fittings are unique branded products "Made in Germany". The proverbial high quality standard which you can rely on.

This is proven by **Quality Certificate as per DIN EN ISO 9001**, which is continuously reconfirmed by VDE, reflects it. Quality management covers all company activities, starting from design, engineering, production and final assembly to sale, and is valid for all product and manufacturing fields.

Being a manufacturer of explosion-protected light fittings and components, SCHUCH, moreover, is subject to an even stronger supervision by PTB with regard to **quality control as per DIN EN/IEC 80079-34**. The routine surveillance audit has been successfully carried out and reconfirmed by a corresponding certificate since 1999.

In recognition of the high quality of delivered products, SCHUCH was awarded, in 2009 for the first time, the **Quality Certificate according to KTA 1401** as a certified supplier to all large German power plants. For illumination of power plants, SCHUCH is the absolute market leader.

The highest quality standards from SCHUCH are also confirmed by the railway. Since November 7th, 2019, SCHUCH has been a certified **Q1 quality supplier to the railway company Deutsche Bahn AG**.

COMMITTED TO ENVIRONMENT PROTECTION

As a manufacturing company, SCHUCH is always aware of its eco-political responsibility.

As a family business with a history spanning more than 125 years, we do not think in quarters but in generations - accordingly our actions are consistently geared towards the **principle of sustainability**. Through responsible use of scarce resources and the development of sustainable products, we make our contribution to environmental protection for a future worth living in today and subsequent generations.

SCHUCH lights are designed for maximum energy efficiency and maximum service life. Through the use of light management systems for situation-based control of the light as well as VARIO luminaires for individual optimal adjustment of the luminous flux, further energy saving potential can be gained.

SCHUCH lights are not **single-use products**. If necessary, all installed components can be replaced by skilled workers in order to avoid unnecessary waste and to conserve valuable resources. The only exception is the gas-tight PRIMO XR series, which must be hermetically sealed due to the application.

All SCHUCH products meet the **REACH and ROHS requirements**. For ensuring a professional disposal of the packing material and of old equipment, SCHUCH is connected to the **INTERSEROH Recycling System and Green Dot - Dual System Germany (DSD)**.

Thanks to the extensive use of Zhaga-compliant LED modules, SCHUCH lights are **future-proof**. A manufacturer-neutral replacement is just as possible as a replacement by Zhaga-compliant subsequent generations without having to replace and dispose of the entire luminaire.

In **regular energy audits** at our site, plants and manufacturing processes are intensively examined and assessed with regard to potential energy savings.

100% ORIGINAL SCHUCH

Every single light fitting of our product range is an original SCHUCH product. Designed and engineered by our own engineers, produced using own tools and 100% quality approved in our own work shop. Unique and with it distinctive.

 **MADE IN GERMANY**



For years we have been taking permanent measures to **reduce our CO₂ footprint** on the way to a climate-neutral company. Important milestones in recent years have been the energetic renovation of our main building, the investment in a new, according to the latest environmentally friendly aspects designed powder coating system and the conversion of our complete factory lighting to LED with appropriate lighting control concepts. The installation of a photovoltaic system for self-supply on the shed roofs of our production hall and the conversion of our company vehicles to electric cars are in the realization phase.

So we are already making a considerable contribution to achieving the UN Sustainable development goals.

Print products are produced in a **climate neutral** way. The respective CO₂ content of the print job is determined and saved elsewhere through the financial support of aid projects all over the world. To this end, SCHUCH works together with various printing companies and renowned climatepartners. With this catalog, SCHUCH specifically supports the Verified Carbon Standard project "Clean wind energy" in Brazil.



Carbon neutral

Print product

ClimatePartner.com/11798-2201-1009



Light on Demand by intelligent lighting control



Wireless Light Management System for outdoor areas



Light only where it is needed, only when it is essential, only as bright as necessary and only as long as it is required - with the help of a light management system, the efficiency potential of LED technology can be optimally exploited.

Intelligent, demand-controlled light saves a great deal of energy costs and is extremely environmentally friendly and sustainable thanks to the considerable reduction in CO₂ emissions associated with

it. In addition, the networking of the light points opens up a wide range of options for implementing smart city applications, provides an overview of the most important system parameters and enables proactive, targeted maintenance and troubleshooting. Therefore, both when renovating and installing new outdoor lighting systems, the question of the use of a light management system should always be discussed. But when is the right time to use it?

Directly with the new installation or renovation of the conventional lighting has started, or should you wait a few more years? Perhaps the financial resources are lacking at the time of the renovation or you would like to start with a small test installation to gain experience. There is no clear answer to this question. But no matter how you decide, one thing is certain: once standard luminaires have been installed, simple retrofitting or conversion to a light management system is no longer possible.

We offer you two alternatives:

RFL - Light Fittings

Luminaires that are prepared for retrofitting light management components and sensors.

LIMAS - Light Fittings

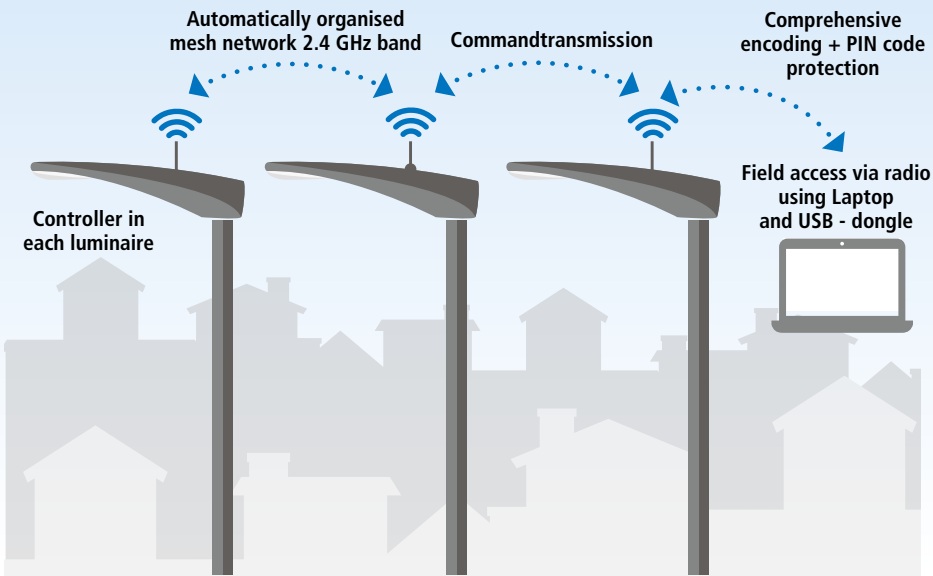
Luminaires that are factory-fitted with all the required light management components.

The system versions explained on the next pages, apply to both alternatives.

System versions

With USB dongle
(standalone solution)

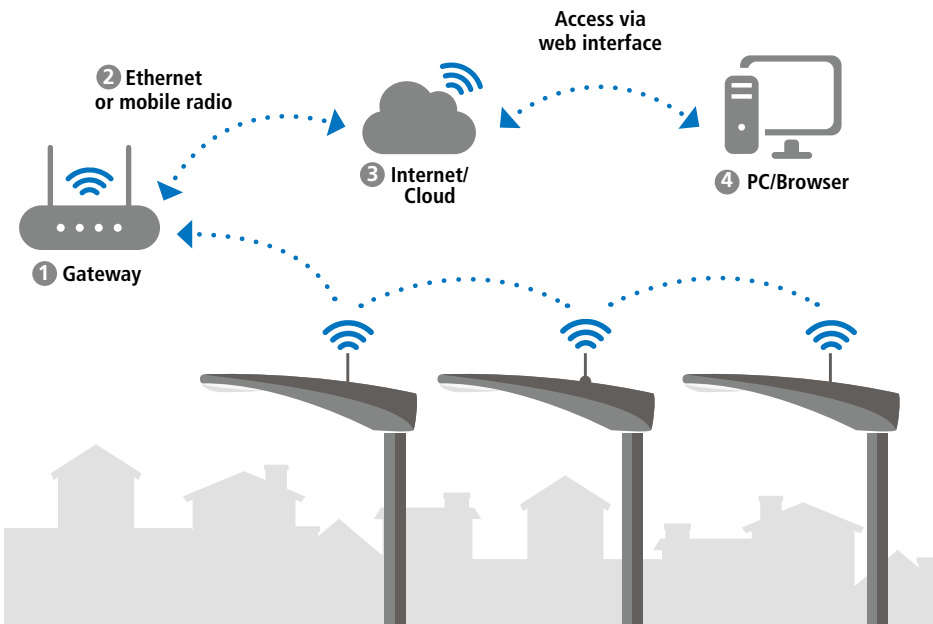
With this simple solution, each individual luminaire is controlled independently, e.g. via a twilight switch or a motion detector without a cloud connection. The light fittings can be operated independently without a server. Programming and any subsequent adjustments, are done on site using a laptop and USB dongle. Up to 250 light fittings can be controlled and read out by each USB dongle. After setting up / programming, the luminaires work completely independently. If required, the programming can also be factory-made.



Light Management

With gateway ⁽¹⁾
(interactive network)

With the gateway solution, the light fittings are controlled and monitored centrally via a PC and gateways in the field. The gateways ¹ are installed in switch cabinets within radio range of the light fittings and communicate via mobile network or ethernet ² with the cloud ³. The light fittings in the field can be controlled with the server and a PC ⁴. The server collects the data from the gateways and provides access to the system functions via a web / browser application ⁴. A maximum of 250 light fittings can be controlled per gateway. Since several gateways can be combined, the number of luminaires that can be summarised in a system is theoretically not limited.



Control components

⁽¹⁾ An annual hosting fee applies to the gateway.

LIMAS USB-Dongle	Art. No 90545 0001	software with license, for setting up / programming or retrospectively adapting the light fittings in the field
LIMAS Gateway 3 EU	Art. No 90545 0004	for extensive monitoring and control of the light fittings from afar with a SIM card via the mobile network or Ethernet (LAN / WLAN) including data logging functionality

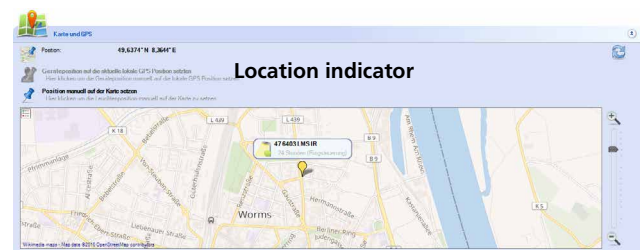
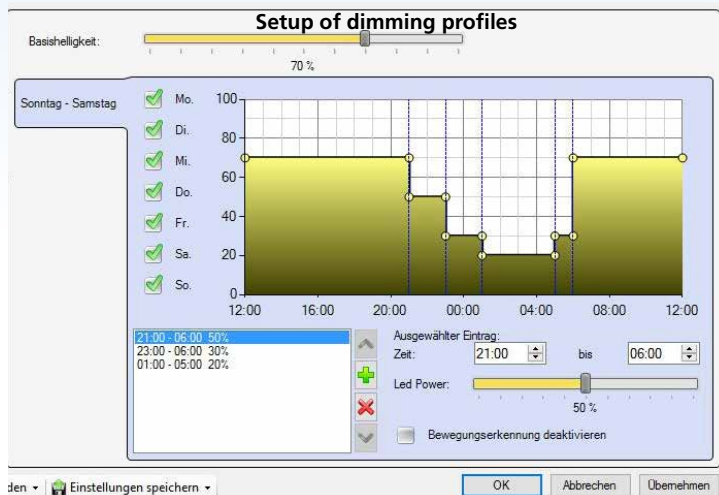
Benefits

(D) = Solution with USB dongle (G) = Solution with gateway

(D) + (G)	Optimised energy savings through light on demand
(D) + (G)	Easy cost control through energy consumption metering
(G)	Evaluation and export of selected/ stored lighting data from the data base from afar
(D)	Evaluation and export of selected/stored lighting data from the data base locally on site
(G)	Proactive, targeted maintenance and failure elimination through the light fittings' automatic failure reporting and location display
(D) + (G)	User-friendly interface with graphic display of the light fittings' operating status, energy consumption, function and location
(D) + (G)	Flexibility thanks to straightforward wireless modification of dimming profiles, together with easy integration of new light fittings into the system with a self-organising mesh network
(G)	Time and date updates via time server for time dependent dimming
(D) + (G)	Safety thanks to system-wide encryption with PIN code protection
(D) + (G)	Central control and (with (G) automatic) monitoring of every single light point
(D) + (G)	No additional wiring required

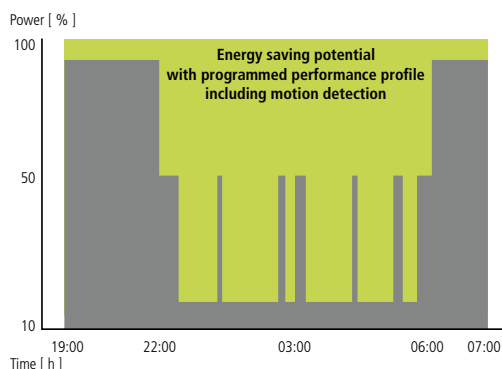
System functions

- **Freely configurable dimming profiles**
based on time of day, duration, dimming level and motion profile
- **Real-time access to the light fittings**
for Instant-On or to alter dimming profiles as required
- **Integrated constant luminous flux function**
to keep the luminous flux constant over the LEDs' entire service life
- **Energy consumption metering**
- **Optional:**
 - Motion detection with a motion sensor (Light on Demand)
 - Optimised On/Off with daylight sensor
 - Time, date, parameter and position monitoring via GPS receiver and GPS-enabled control unit, together with automatic failure notifications with location information

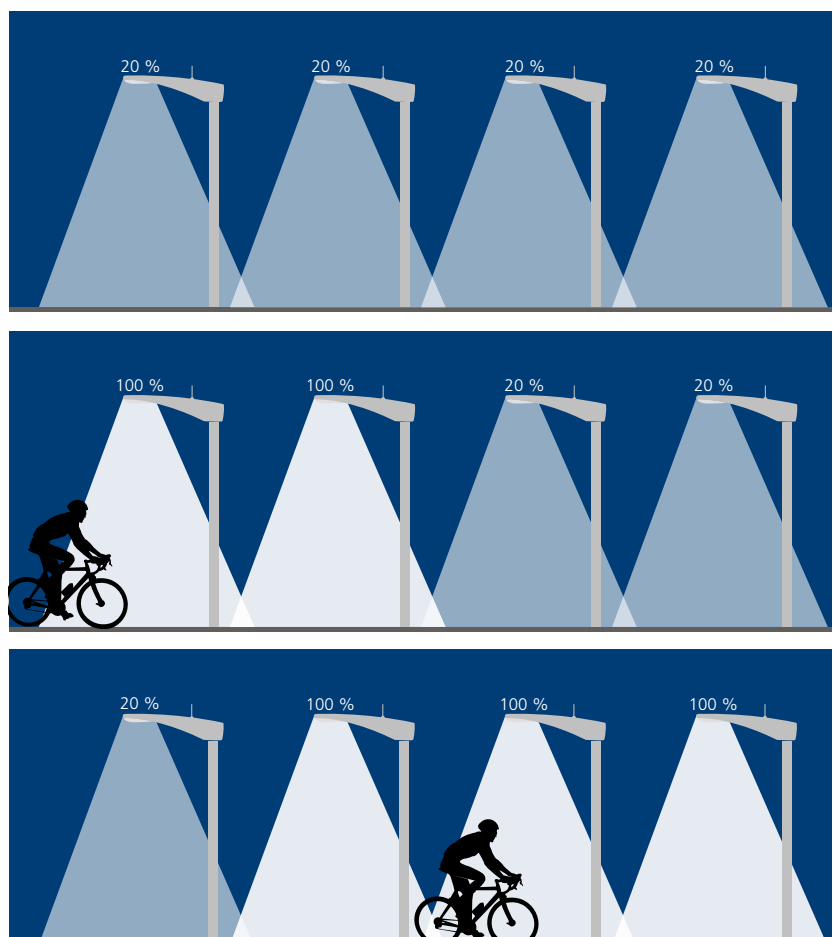


Motion detection - Light on Demand

If a road user enters a road, a cycle path or a footpath, this is recognized by the motion sensors integrated in the luminaires (LMS IR) or retrofitted (accessory RFL) and the dimmed light fittings automatically adjust to the programmed lighting level. The signal is transmitted wirelessly from luminaire to luminaire, which then also increase their lighting levels. The light accompanies the road user dynamically. After the programmed holding period has elapsed, the light fittings automatically return the lighting level to the preset dimming level.



The road with cyclists is only used here as an example to clarify the general process.





LIMAS - Light Fittings

Intelligent light control right from the start

Light Fittings in LIMAS version are factory-fitted with all the required light management components.

No further modifications need to be made to efficiently illuminate streets, squares or cycle paths. If requested by the customer, LED profiles can be programmed at the factory.

Almost all SCHUCH outdoor light fittings are available in LIMAS version.

In general the following versions are possible

- **LMS** standard version with radio antenna
- **LMS IR** with an additional infrared sensor for a needs-based light control (Light on Demand)
- **LMG** with GPS antenna for precise dimming on time in the case of an autarkic operation without gateway
- **LMG IR** with an additional infrared sensor for a needs-based light control (Light on Demand)

Further types on request.

Equipment

Sensor box external box, networked with the luminaires to house various components

(e.g. control of the lighting via a separate twilight switch, a light barrier or an external switch.)

A time-dependent dimming behavior requires at least one light fitting in the LMG version, when the system version with USB dongle is selected.





A hub (also called „node“) is a network device that connects such several devices within a (radio) network. In network technology, it serves as a distributor for the data packages. This will create a wireless local area radio network („Mesh“).

RFL - Light Fittings Ready for the future

You have the choice - you determine the timing, because luminaires in RFL version (Ready for Light Management System) are prepared for retrofitting light management components and sensors.

One or two Zhaga-compliant sockets integrated into the light fitting housing enable the required components to be installed at a later date without tools. The use of autonomous sensors without a connection to a light management system is also possible with the RFL luminaires at any time (stand-alone solution).

Thanks to the standardization of the base according to Zhaga Book 18, you are not tied to a specific light management system. In theory, you have the freedom to choose from all manufacturers who also use standardized Zhaga sockets for their components.

Of course, you can also equip RFL light fittings immediately during the initial installation with the corresponding light management components. If RFL LIMAS HUBs are used (see system components), RFL luminaires can also be combine with LIMAS light fittings.

A large number of SCHUCH outdoor luminaires are already as standard available in RFL version (see chapter “Outdoor Light fittings”).

In general the following versions are possible

- **RFL0:** with Zhaga socket on the **top side of the housing** for subsequent retrofit of light management components e.g. a controller with antenna (see *system components*)
- **RFLU:** with Zhaga socket at the **bottom of the housing** for subsequent retrofit of sensors to control the light fittings self-sufficient (see *system components*)
- **RFL0U:** with Zhaga socket at **top and bottom of the housing**. Thus it's possible to retrofit both, light management components and sensors (see *system components*)

In order to control the light fittings - after appropriate retrofitting of the light management components - the corresponding light management software as well as possibly further components are necessary (see *control components*).



Exclusively D4i control gear is being used in RFL luminaires from Schuch. All D4i Zhaga Book 18 certified controllers and D4i Zhaga Book 18 certified sensors available on the market can be used in combination with RFL luminaires from Schuch. Controllers and sensors which do not comply with the D4i standard can limit the functionality of the luminaires and components. Moreover, in individual cases, such non-certified components may cause damage to both the luminaires and the components.

Advantages



RFLU with mounted HUB (top - O) and unequipped socket (bottom - U)

- Implementation of a light management system is possible at any time
- Tool-free, quick and easy installation of the light management system components
→ simply screw off the socket cap and screw on the system component
- Standardized Zhaga-compliant sockets allow a free choice of the light management system
- In case of using the LIMAS light management system, LIMAS light fittings and RFL light fittings (equipped with rfl limas HUB) can be combined easily

System components

Type	Art. No		Illustration
RFL LIMAS HUB3	90546 9009	light management controller	1
RFL LIMAS HUB3 GPS	90546 9010	light management controller with GPS (optional with SIM card)	2
RFL LIMAS BM RAD HUB LPH max. 8m	90546 9011	control element / radar motion detector	3
RFL LIMAS BM RAD MA LPH max. 10m	90546 9012	control element / radar motion detector	4
RFL DS20 HUB 20lux ON/OFF	90546 9000	twilight switch	5
RFL BM/DS IR HUB LPH max. 8m	90546 9004	motion detector with infrared and twilight switch	6
RFL BM/DS IR HUB LPH max. 12m	90546 9006	motion detector with infrared and twilight switch	7

Other sensors, e.g. environmental sensors (fine dust, CO₂, weather station etc.) on request.



Control components

An annual hosting fee applies to the gateway.

LIMAS USB-Dongle	90545 0001	software with license, for setting up / programming or retrospectively adapting the light fittings in the field
LIMAS Gateway 3 EU	90545 0004	for extensive monitoring and control of the light fittings from afar with a SIM card via the mobile network or Ethernet (LAN / WLAN) including data logging functionality

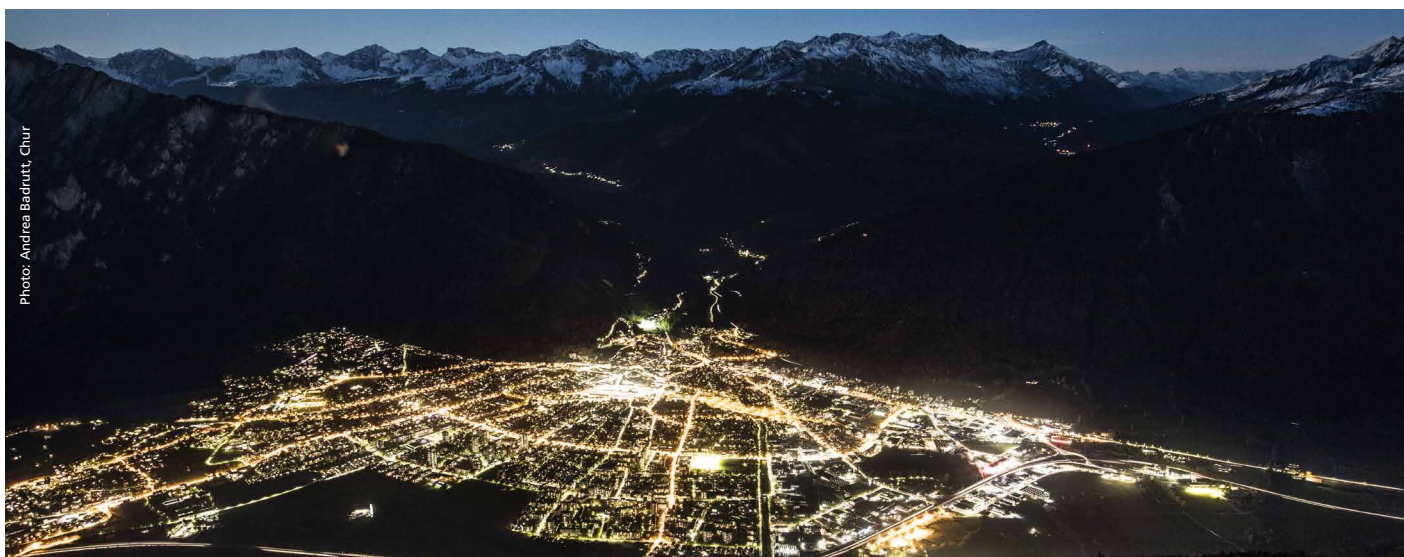


Photo: Andrea Badrutt, Chur

More than 2,500 SCHUCH light fittings of the 47 and 48 series ... with the LIMAS light management system have been installed in the city of Chur / Switzerland since 2015. As a browser-based solution with gateways, they are spread across the city, enabling light on demand and saving energy costs.



Radio-based light management system for industrial areas



In many areas of an industrial or commercial enterprise, there is considerable potential for saving energy. By using new technology, a lot can usually be achieved here - especially in lighting systems.

This is how intelligently controlled LED lighting performs from the start to a noticeable reduction in costs and, in the sense of a sustainable corporate management, to a significant reduction in CO₂ emissions.

With the radio-based LIMAS Air light management system, you can now make your lighting system smart in no time at all, easily and without any additional installation work.

Main features

It is not uncommon for production processes to change, and as a result, lighting requirements as well. If industrial interior areas are used differently, the lighting systems must also be adapted to the new visual tasks. The LIMAS Air light management system offers a high degree of flexibility and enables quick adaptation to new requirements.

The lights equipped with LIMAS Air communicate via a radio-based mesh network. Mesh networks organize themselves decentrally and are „self-healing“ - should a luminaire/ component fail, the communication takes place automatically via a functioning „neighbor“. This mode of operation ensures a high level of reliability for the entire system.

By integrating various sensors, the lights are controlled efficiently and according to requirements, which leads to significantly reduced operating times and thus also to considerable cost savings. In addition, the service life time of the luminaires is extended.

Advantages

- Modular
- Tailor-made and expandable
- Comfortable
- Flexible
- Easily controllable
- Reliable
- Future-proof
- Sustainable and cost-efficient
 - (reduction of energy consumption and thus reduced CO₂ emissions)

Functionality

SCHUCH high-bay and damp-proof light fittings in the DIMD version can be connected by using the LIMAS Air radio module. On all SCHUCH DIMD high-bay luminaires with FastConnect plug the radio module can be easily connected (plug & play). Networking makes an additional line superfluous and thus saves additional effort, time and money.



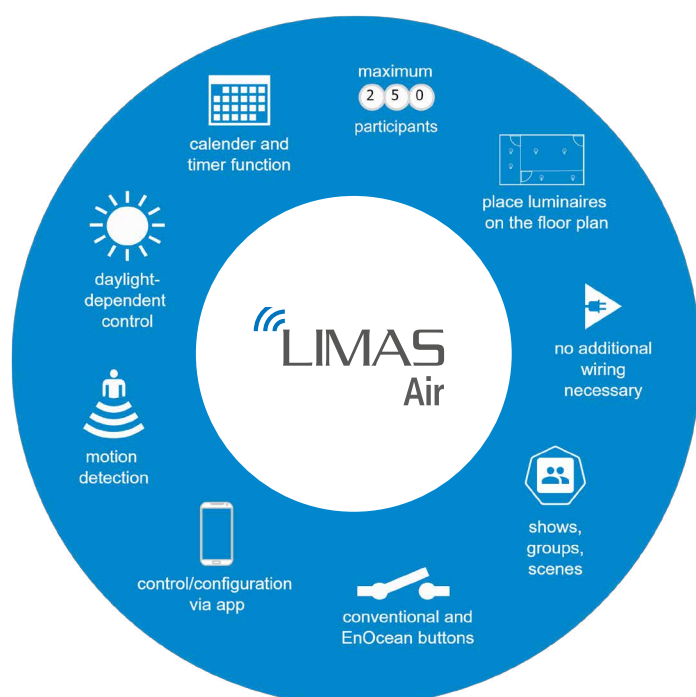
Based on CASAMBI® radio technology and the Bluetooth radio standard, the lighting system can be controlled reliably with low power consumption and a large range.

If there are already DALI light fittings with CASAMBI® radio module in an existing system, these can be integrated. Using the free CASAMBI® app, the system can be configured simply and intuitively via smartphone or tablet. The various sensors

(e.g. motion or daylight-dependent) and actuators (e.g. buttons) specially developed for industry can be integrated and flexibly grouped accordingly. An overall comfortable and user-oriented control.



Features



- Up to 250 participants (luminaires, pushbuttons and sensors) in one mesh network
- Different usage scenarios programmable
→ if requirements change, easy and quick regrouping
- Daylight-dependent control
- Control via motion detection
- Animations can be realized (sequence of scenes or transition between scenes)
- Calendar and timer function
- Integration of battery- and wireless EnOcean pushbuttons
- Integration of conventional pushbuttons
- User-friendly user interface with floor plan display and location display of luminaires and components
- Readout of luminaire data (energy consumption, device version, dimming curve, etc.)
- Monitoring of the system with automatic failure notification
- Optional solution with gateway for central control and monitoring of the lighting system
- LIMAS Air lighting installation can be combined and controlled with wired DALI luminaires using the LIMAS Line PRO system

Areas of application



Industry



Parking garages



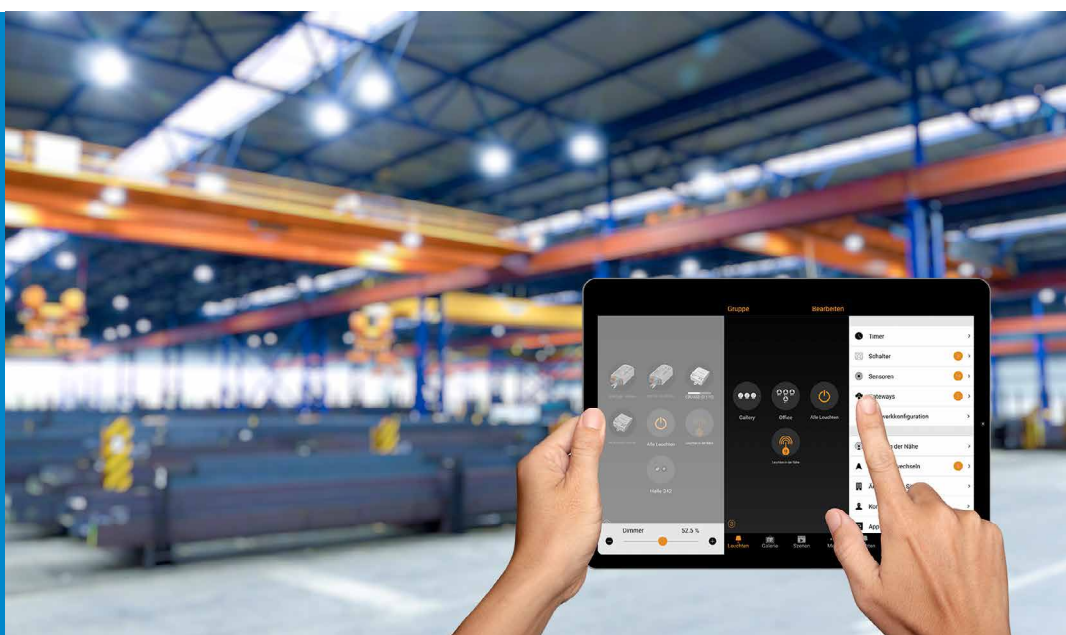
Commercial enterprises



Production halls



Warehouses & logistics



Schematic representations of possible energy savings potential

For an optimal lighting level and associated maximum energy savings, the motion detector and daylight sensor should always be combined. By a pushbutton the lighting can be manually overridden/ switched at any time.

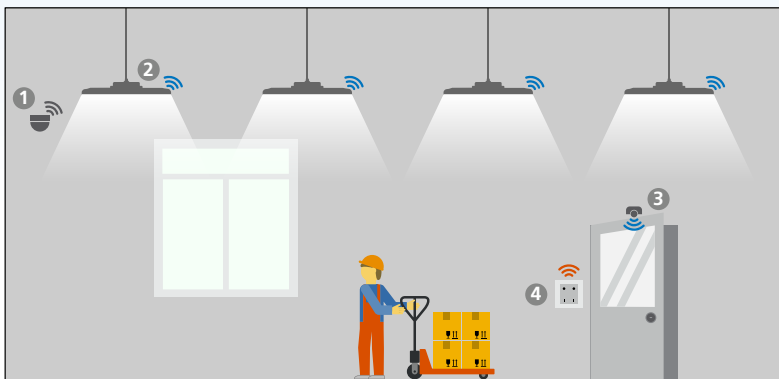
1 Daylight sensor

2 Luminaire with LIMAS Air radio module

3 Motion detector

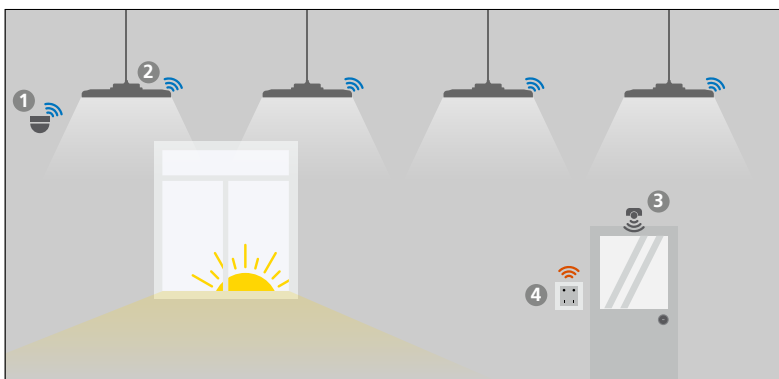
4 Pushbutton

Presence detection

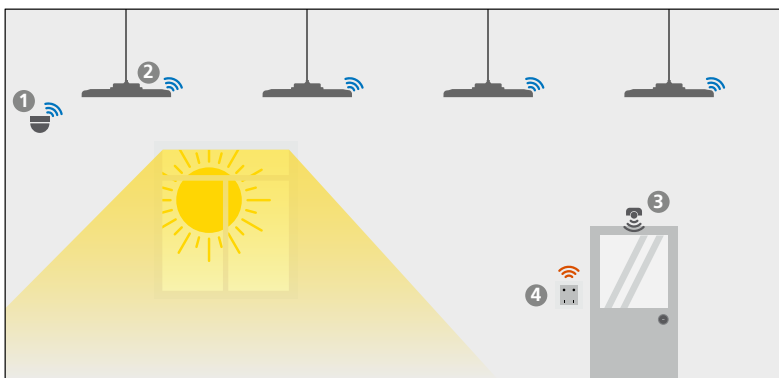


The motion detector ensures that the lighting is only switched on when people or objects with a temperature difference to the surroundings are present. In case of absence, the lighting is either completely switched off or dimmed to a preset level (such as 10%).

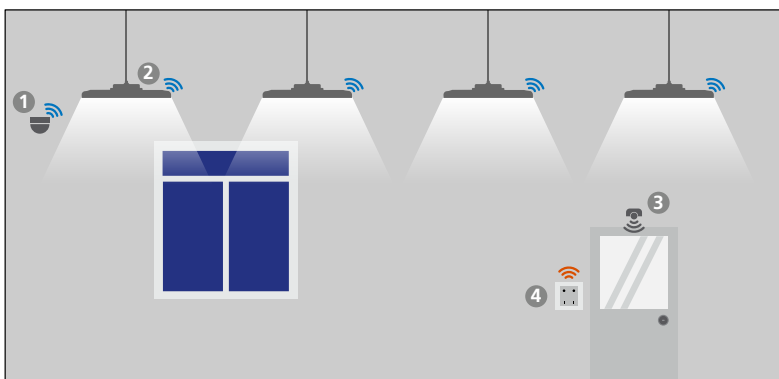
Daylight control



Depending on the amount of daylight, the light sensor dims the lighting to the desired level.



When there is sufficient daylight the sensor switches the lighting completely off.

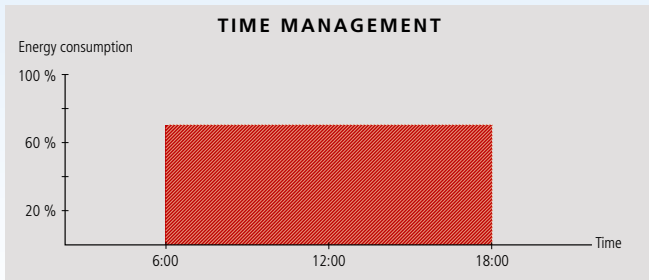


At night, when no daylight is available, the lighting is set to 100% or to a different preset level.

Energy savings potential

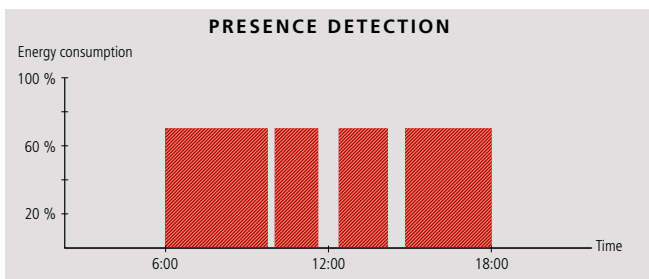
The smarter the lighting system, the greater the savings.

If luminaires are only switched on when they are needed, this has many advantages: energy costs are reduced, CO₂ emissions are lowered, resources are saved and the service life time of the luminaires is extended. The more concretely the duration and the intensity of need for artificial light are defined, the better the efficiency potential of LED lighting can be exploited.



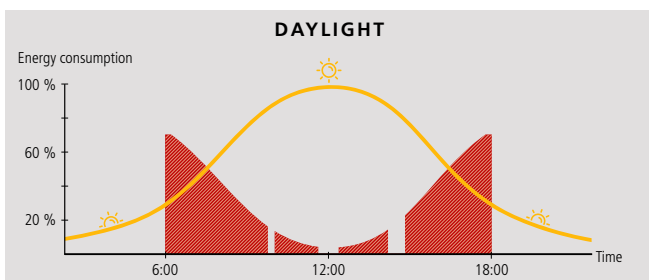
The light fittings are switched on continuously in the production hall during the entire operating time.

➔ **Minor savings, as the luminaires are only switched off outside working hours.**



Motion detectors capture the presence of people in the production facility. During breaks or when no movement is detected, the lighting remains switched off.

➔ **Increased savings as the light system is controlled according to demand during working hours.**



Daylight sensors measure the brightness in the production hall. This varies due to incident sunlight during the course of the day. The entire lighting system is continuously adapted to this and dimmed accordingly.

➔ **Optimum savings, as each luminaire only provides as much artificial light as necessary.**



LIMAS Line

Wired DALI - Light Management System

Diverse activities in a room, different frequentation of areas and zones as well as day and season changing lighting conditions hold a high energy and CO₂ saving potential in lighting. Individually adapted light through intelli-

gent lighting control is not only of great advantage from an economic and ecological point of view, it also focuses on the different needs of people.

LIMAS - Line is available in two different versions:

- **BASIC** - standard version
- **PRO** - extended version

Light Management System LIMAS Line

LIMAS Line BASIC

Only
Light Management

Max. 64 ballasts

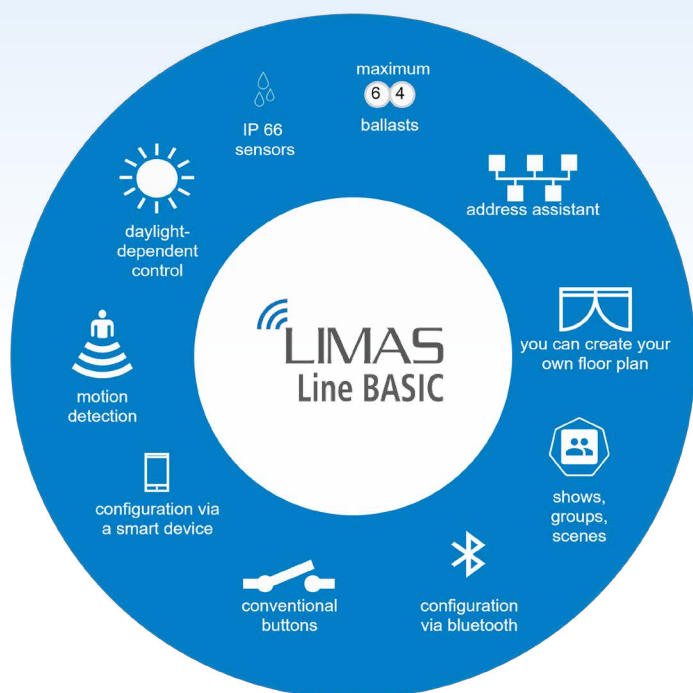
LIMAS Line PRO

Light Management
and Emergency
light monitoring

Max. 192 ballasts

LIMAS Line BASIC

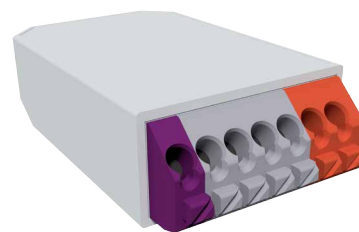
The standard version with all basic functions



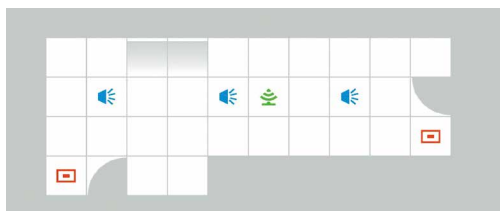
LIMAS Line BASIC

enables fully automated, dynamic light and thus offers a high degree of individuality.

The sensors register every deviation from the predefined values and report them to the controller, which reacts immediately. If, for example, the proportion of daylight changes, the lux value of the artificial light is adjusted accordingly. Switching on / off in the event of presence or absence is fully automated too. It is also possible to link the light settings of different zones and rooms with one another. The user himself does not notice the lively communication between the sensors and the controller. Everything that he perceives is needs-based, always optimally adjusted illuminance, which is activated at all times where and when he needs it.



User interface in the app:
exemplary floor plan design



The LIMAS Line BASIC light management system is configured via Bluetooth using a smart device (Android or iOS). All this requires is a free app. If this is installed, the room to be illuminated can be recreated in the form of a rudimentary floor plan and then equipped and configured accordingly with lights, sensors and buttons.

All DIMD-Light Fittings from the SCHUCH portfolio can be controlled by LIMAS Line BASIC.

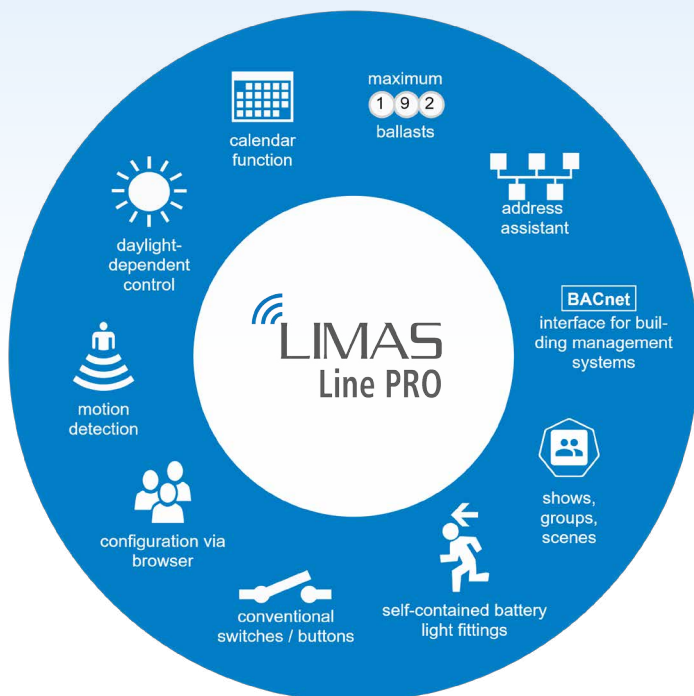
Features and advantages

- 64 ballasts (max.) can be controlled and monitored per system
- Daylight-dependent control
- Motion detection
- Configuration via smart device (smartphone / tablet)
- Easy integration of new light fittings
- Flexibility by simply changing dimming profiles and group assignments
- Conventional buttons can be integrated
- Integration of IP 66 sensors
- DALI2 sensors & actuators from third-party suppliers can be integrated



LIMAS Line PRO

The extended version that simply has more to offer



LIMAS Line PRO

enables an easy addressing and grouping of luminaires, the integration of standard pushbutton switches and sensor-based automation.

In addition to DALI (DIMD) light fittings, this system can also be used to control and monitor all self-contained emergency light fittings (MA-Z, DIMDI and DI) in the SCHUCH portfolio. The configuration and control is done by PC without additional software - a browser is sufficient. The conjunction between a PC and LIMAS Line PRO can either be via an existing network or by establishing a peer-to-peer connection. There is no internet connection required to operate the system.

All DIMD, MA-Z, DIMDI and DI-Light Fittings from the SCHUCH portfolio can be controlled by LIMAS Line PRO.

Regulation according to needs

LIMAS Line PRO offers the possibility to integrate sensors. In addition to the presence-dependent control by temperature differences (PIR sensor), daylight-dependent control of the lighting can also be taken into account. Thanks to different detection areas, this is also the right solution for industrial halls.

Automation through calendar function

With the calendar function, day and time-specific lighting settings (scenes) are possible. This can include both: one-off events and annually recurring (public holy-) days can be saved.



Individual control

A converter is required to connect conventional switches or buttons. A maximum of four switches / buttons can be connected to each converter. The compact design of the converter allows it to be easily placed in surface and flush-mounted boxes.

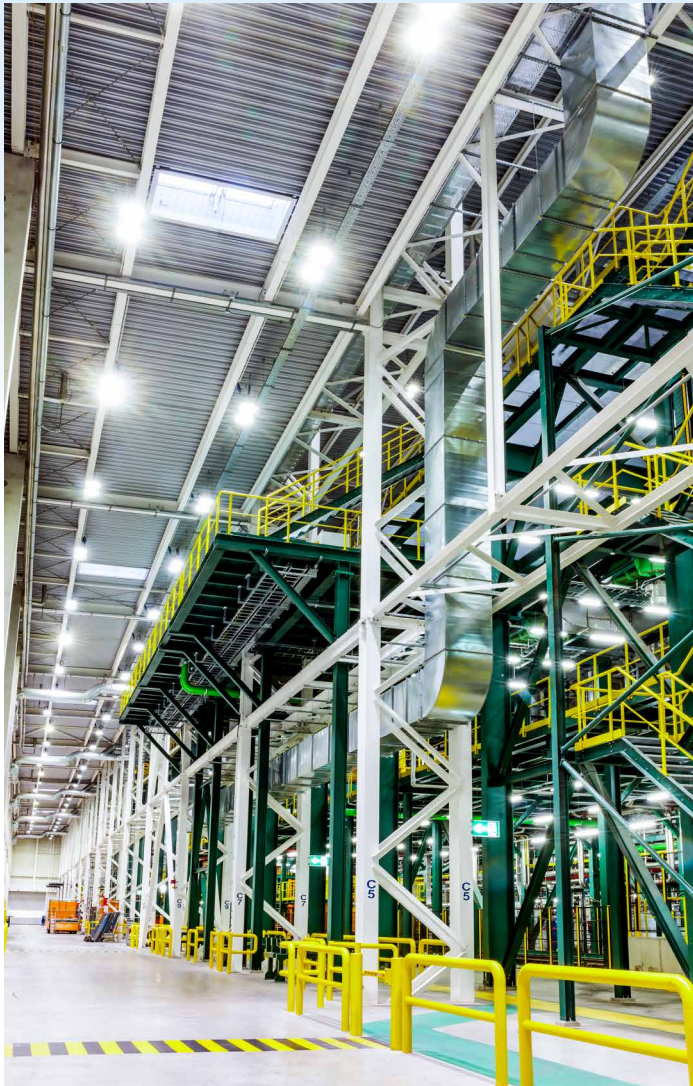
Monitoring of self-contained emergency light fittings

When integrating self-contained emergency luminaires, function and duration tests can be carried out at any time and thus a central monitoring can be realized (look at DIN VDE V 0180-100-1).

The results of the emergency lighting tests are documented centrally and can be exported.

Features and advantages

- 192 ballasts (max.) can be controlled & monitored per system
- Daylight-dependent control
- Motion detection
- Control / configuration via PC (LAN connection)
- Emergency light monitoring
- User-friendly operating interface for the consumer
- Intuitive installation by the assembly personnel
- Easy integration of new light fittings into the system
- Calendar function for the configuration of daily / time-specific lighting settings (scenes)
- Flexibility by simply changing dimming profiles & group assignments
- No DALI power supply system required
- DALI2 sensors & actuators from third-party providers can be integrated
- IP66 sensors
- Conventional switches / buttons can be integrated
- Integration of the light management system in a higher-level building management system (BACnet protocol)
- Up to 5 Controllers (max. 960 luminaires) can be combined to form a system network



High Bay light fittings control by using the calendar function - In addition to full days, time-specific settings can also be selected. It makes sense if e.g. the complete lighting should be switched to 100% in a company during core working hours.



Integration of emergency luminaires with self-contained batteries - Emergency luminaires can be used with the following three types of circuit: Continuous light, standby light and controlled light.



Explosion-Protected Light Fittings

Impressive innovation strength in extreme conditions

For more than one hundred years SCHUCH has been considered as an expert in lighting in extreme environments. Applications in explosive gases and dust environments set stringent requirements.

With the results of its own intensive research and design work, as well as more than 100-year experience, SCHUCH still acts as an innovator in this challenging field. Thus, SCHUCH has decisively influenced much on the development of conventional explosion-protected linear light fittings, as well as of the relevant standards. Explosion-protected linear-light fittings with 2-pin technology are inseparably associated with SCHUCH. Using the new LED technology, SCHUCH sets new benchmarks with its innovative solutions. Worldwide, SCHUCH has one of the widest ranges of lighting products providing protection against explosive gases and dusts.

HIGHLIGHTS OF TECHNOLOGICAL DEVELOPMENT - SCHUCH AS A PIONEER

1910

The first SCHUCH mining light fittings illuminate the coal mines in the Saarland and in the Ruhr region and are delivered to the mines in South Africa.

1929

SCHUCH disposes of an extensive range of explosion-protected and mining luminaires, junction boxes, switches and sockets. The product line of explosion-protected light fittings is a major sector within the entire manufacturing program.

1952/53

Introduction of „glass fiber reinforced Polyester“ as material for the housings of explosion-proof light fittings.

1953

First approval of an explosion-protected ceiling light fitting for single-pin fluorescent tubes.

1986

After substantial development work, SCHUCH got the world's first certification of an explosion-protected electronic control gear for 2-pin fluorescent tubes.

1989

World innovation: SCHUCH presents the first explosion-protected linear light fitting with an ECG for standard 2-pin fluorescent tubes. A pioneering solution that enables to generally use conventional fluorescent tubes in explosion-protected light fittings. Thus, SCHUCH became the forerunner of modern explosion-protected linear light fittings.

1998

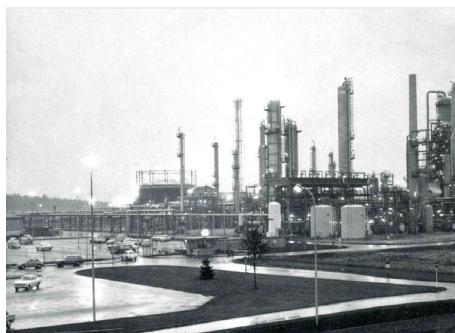
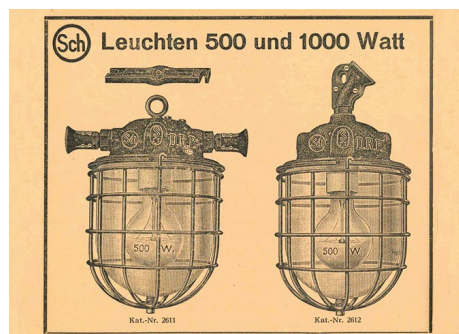
With the world's first approval of an Ex-ECG with „end-of-life“ shutdown, a safety gap in the operation of explosion proof light fittings is being closed - SCHUCH is making history again. Immediately afterwards, this becomes bindingly included in the standards.

2005

First approval of an explosion-protected linear emergency light fitting with a microprocessor-controlled intelligent emergency control unit and an integrated ECG with „end-of-life“ cut-off system.

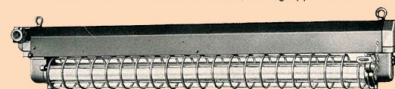
2010

First explosion-protected linear light fitting for Zone 2 and Zone 22 with the application of an energy-saving T5 lamp technology.



Explosionsgeschützte Leuchten für Leuchtstofflampen

Schutzart „erhöhte Sicherheit“, Zündgruppe A-D



Einzeilleuchten ein- und zweiflammig
Bandleuchten, ein- und zweiflammig

Product	Series	Page
Light fittings for Zone 1/21		22-39
Light fittings with diffuser ExeLED 1	e865...	22-23
• for high ambient temperatures	... H..	23
• with DALI interface	... DIMD	23
Emergency light fittings ExeLED 1 N	e864...	24-25
Light fittings with diffuser with central locking system	e840...	26-27
Pole mounted light fittings	e840... PM	27
Compact light fittings with diffuser	e855...	28-29
Compact emergency light fittings	e856...	30-31
Steep roof light fitting	e821...	32-33
• with DALI interface	... DIMD	33
High bay light fittings ExSTREAM	e8825...	34-35
• with DALI interface	... DIMD	35
Floodlights ExSTREAM	e8820...	36-37
• with DALI interface	... DIMD	35
Ceiling- or Wall-mounting light fitting ExGLOBE	e9312	38
Handlamp ExSPECT	e9310	39
Light fittings for Zone 2/22		40-55
Light fittings with diffuser ExeLED 2	nD866...	40-42
• for high ambient temperatures	... H..	41
• with DALI interface	... DIMD	41
Emergency light fittings ExeLED 2 N	nD867...	43-45
Compact emergency./ escape light fittings	nD8611...	46-47
Steep roof light fitting	nD822...	48-49
High bay light fittings ExDUEVO	nD8301/02...	50-51
Floodlights ExFOCO L	nD8700...	52-53
Plane surface floodlights ExFOCO L	nD8700... A	53
Floodlights ExFOCO XL	nD8800...	54-55
Plane surface floodlights ExFOCO XL	nD8800... A	55
Ex-Installation material		
Carrier rail systems	TRS 2000	56
	AL	56
Through wiring systems	DV	57
Wall sockets	4216	58
Plugs	4210	58
Installation switches	8040	59
Junction boxes	8118	59

LED TECHNOLOGY

2011

SCHUCH brought the first EX-protected LED headlights, emergency and compact light fittings to market maturity.

2014

First approval of explosion-protected linear LED light fittings, high bay LED light fittings and LED floodlights for Zone 2/22.

2016

World's first explosion-protected linear light fitting for Zone 1/21 using an innovative LED casting technique.

2017-19

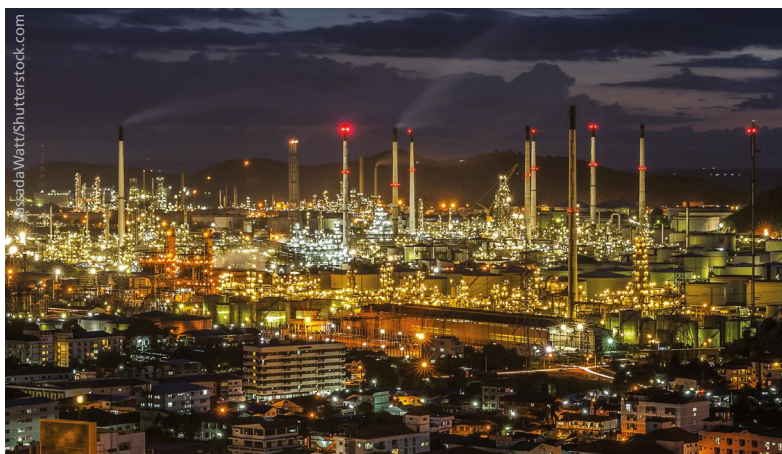
The range of LED light fittings is expanding at a rapid pace. The ExeLed1 N and ExeLed 2 N emergency light fittings, LED floodlights and surface floodlights follow in short intervals.

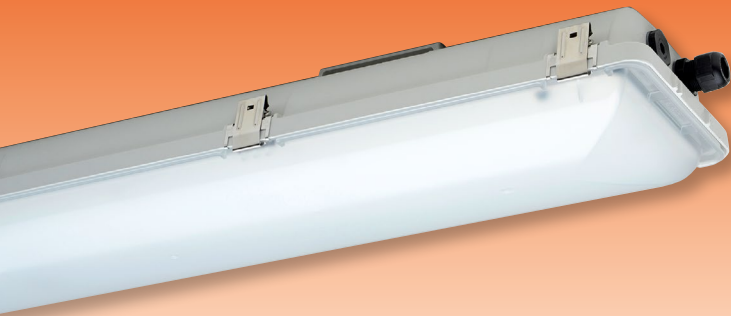
2020

With the introduction of steep roof light fittings, compact wall and ceiling mounted light fittings and the hand lamp e9310, the LED range gets expanded continuously.

2021

Floodlights and High Bay light fittings of the ExSTREAM Zone 1/21 series complete the extensive program.





ExeLED 1

LED-Light Fitting for Ex-Zone 1/21

Series e865...

Applications:

Hazardous locations of zones 1/2 (gas) and 21/22 (dust).

Design:

Housing: Glass fibre reinforced polyester resin.

Cover: Injected polycarbonate, frosted (F) or clear, silicone gasket.

Closure: Stainless steel clips (KE), two of them as safety clip (KES), to be opened with screwdriver only.

Reflector: Sheet Steel, painted, carrying the encapsulated LED-modules, clipped into the cover, removable as a unit.

Connection: 3 poles up to 4 mm².

Cable entries: 3 entries M25 x 1,5, (2 glands - one of them is plugged)

Standard: Facing downwards or forwards.

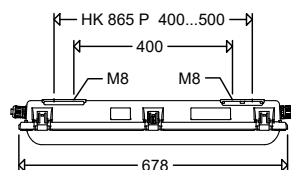
Mechanical installation:

Mounting accessories see spare parts/accessories.

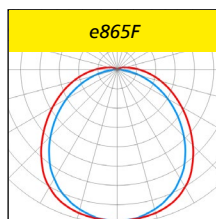
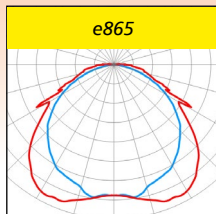
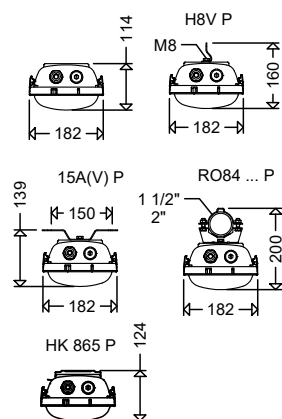
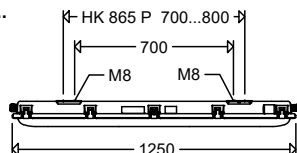
Note:

This light fitting is not suitable for application in areas with permanent high humidity in combination with only short periods of operation, such as sewage or stormwater retention tanks or water treatment plants.

e865 06L..



e865 12L..



Technical Data:

LED: Line modules with clear cover appr. 6,500K, with frosted cover appr. 6,000K, CRI > 80, lifetime L₈₀ > 100.000h, L₉₀ > 85.000h (06L..), L₉₀ > 80.000h (12L..) at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature

ECG: 220-240V AC/DC, 0 or 50/60Hz, overvoltage, overload and short circuit protection

Options:

- 4.500K, light colour 845
- for connection to group or central battery (light fittings of version ZB only) or emergency mains respectively
- for explosive dust atmospheres Zone 21 (**t868...**)

- for higher ambient temperatures up to +70°C (on demand)
- with through wiring system
- with monitoring module for monitoring the individual light fitting



Product highlights:

- innovative encapsulation with high transmission rate
- LED-Modules protected from mechanical or electrostatic damages by sandwich design of reflector and cover
- homogeneous illumination by using frosted diffusers (versions e865F..) no individual light points visible, comfortable perception of light, brilliant glare limitation
- high colour rendering index CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- FastFix mounting, system for variable mounting distances and easy installation (retaining clips HK865 P) without opening the fitting
- ECG and reflector with LED-modules **replacable by qualified personnel on-site**

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Cover frosted	Cover clear	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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e865...



EC-Type Examination Certificate:

IBExU 16 ATEX 1008

Other approvals:

IECEx IBE 16.0010

Ignition protection: eb

Marking:

II 2 G Ex eb mb q IIC T4 Gb (Zone1)

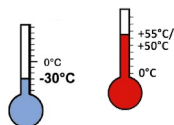
II 2 D Ex tb IIIC T80°C Db (Zone 21)

Rated voltage: 220-240V AC/DC, 0 or 50/60Hz.

Permissible ambient temperature:

-30°C up to see article table

The values given are for versions with through wiring.



Looping the cable on one side:

All light fittings of series e865... have got 2 cable entries on one small side of the housing for cable looping instead of the through wiring system.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

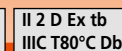
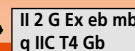
All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

86500 0050	e865F 06L22	15	2.170	145	•	55	2 x 18W	4,6
86500 0051	e865F 06L42	28	4.120	147	•	55	2 x 36W	4,7
86500 0052	e865F 06L60	40	5.700	143	•	50	2 x 58W	4,7
86500 0001	e865F 12L42	28	4.360	156	•	55	2 x 36W	6,7
86500 0002	e865F 12L60	40	6.020	151	•	55	2 x 58W	6,7
86500 0003	e865F 12L85	54	8.620	160	•	50	> 2 x 58W	7,0
86500 0011	e865 12L42	28	4.590	164	•	55	2 x 36W	6,7
86500 0012	e865 12L60	40	6.320	158	•	55	2 x 58W	6,7
86500 0013	e865 12L85	54	9.010	167	•	50	> 2 x 58W	7,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Cover frosted	Cover clear	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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e865... DIMD



dimable via DALI interface

Design:

Same as standard version, but with DALI2 compatible ECG and 2 additional clamping points, marked with DA, the polarity does not matter.

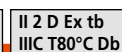
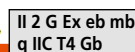
Compatible with LIMAS Line Light Management System.

Note:

The conducting wires to the control input must be mains voltage stable and can be integrated in the connection cable.

86500 0952	e865F 06L42 DIMD	28	4.120	147	•	55	2 x 36W	4,7
86500 0953	e865F 06L60 DIMD	40	5.700	143	•	50	2 x 58W	4,7
86500 0914	e865F 12L42 DIMD	28	4.360	156	•	55	2 x 36W	6,7
86500 0913	e865F 12L60 DIMD	40	6.020	151	•	55	2 x 58W	6,7
86500 0903	e865F 12L85 DIMD	54	8.620	160	•	50	> 2 x 58W	7,0

e865... H..

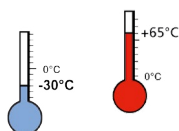


for high temperature ¹⁾

86500 0053	e865F 06L22 H65	15	2.170	145	•	65	2 x 18W	4,6
86500 0054	e865F 06L42 H60	28	4.120	147	•	60	2 x 36W	4,7
86500 0055	e865F 06L60 H55	40	5.700	143	•	55	2 x 58W	4,7
86500 0910	e865F 12L42 H65	28	4.360	156	•	65	2 x 36W	6,7
86500 0902	e865F 12L60 H65	40	6.020	151	•	65	2 x 58W	6,7

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

¹⁾ through-wiring or looping the cable is not permissible.



Explosion protected
Light Fittings

Accessories / Spare Parts

Article No.	Type	
Spare diffusers		
86601 9001	8654F	PC, frosted for 12L..
86601 9014	8652F	PC, frosted for 06L..
86601 9000	8654	PC, clear for 12L..
Fasteners		
90055 9004	KE/KES VE10	stainless steel, incl. 2 safety clips (packing unit 10 pcs.) see picture on the left, for e 865 12L.. until year of manufacture 2020
90055 9005	KES P	1 pair of safety clips stainless steel for e865 12L.. until year of manufacture 2020
90055 9007	KE/KES G2 VE10	stainless steel, incl. 2 safety clips (packing unit 10 pcs.) see picture on the left, for e 865 12L.. from year of manufacture 2020 and for e 865 06L..
90055 9006	KES G2 P	1 pair of safety clips stainless steel for e865 12L.. from year of manufacture 2020 and for e865 06L..
Glands/breather		
90117 9006	2537 G	ex-protected plastic cable gland M25 x 1,5 with nut
90118 9006	2538 G	ex-protected plastic plug M25 x 1,5 with nut
90259 9000	KS25 EX	ex-breather M25 x 1,5
Mounting material		
86501 9003	HK 865 P	2 retaining clips for variable mounting distances
90001 0002	H8V P	2 suspensions eyes with bolts, stainless steel
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
90037 0004	RO84 112 A P	2 pipe clamps 1 1/2", stainless steel, with support
90038 0004	RO84 2 A P	2 pipe clamps 2", stainless steel, with support
26000 0004	W26 P	2 wall mounting angles
26000 0002	W26/30 P	2 wall mounting angles 30°
26000 0003	W26/45 P	2 wall mounting angles 45°

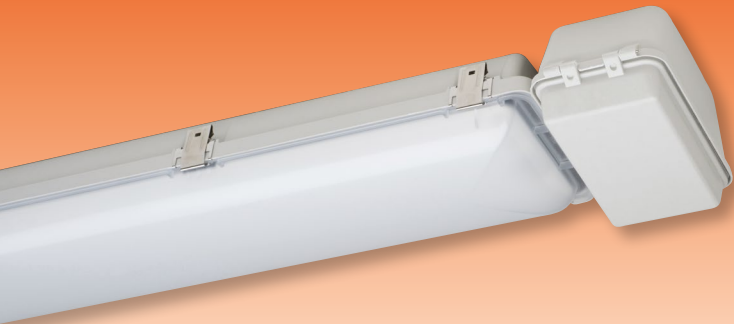
Fasteners

KE/KES VE10
KES P



KE/KES G2 VE10
KES G2 P





ExeLED 1 N

LED-Emergency Light Fitting for Ex-Zone 1/21 Series e864...

Applications:

Hazardous locations of Zones 1/2 (gas) and 21/22 (dust), for illuminating escape routes.

Design:

Housing: Glass fibre reinforced polyester with separate battery box at one small side of the housing.

Cover: Injected polycarbonate, frosted (F) or clear, silicone gasket.

Closure: Stainless steel clips (KE), two of them as safety clip (KES), to be opened with screwdriver only.

Reflector: Sheet Steel, painted, carrying the encapsulated LED-modules, clipped into the cover, suspendable.

Connection: 4 poles up to 4mm².

Cable entries: 2 entries M25 x 1,5 at one small side of the housing, (2 glands - one of them is plugged)

Standard: Facing downwards or forwards.

Mechanical installation:

Mounting accessories see spare parts/ accessories.

Technical Data:

LED: Line modules with clear cover appr. 6,500K, with frosted cover appr. 6,000K, CRI > 80, lifetime L₈₀ > 100.000h, L₉₀ > 95.000h (06L...), L₉₀ > 85.000h (12L...) at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature

ECG with an integrated emergency control unit

Incorporated NiCd battery, electronic charger, short circuit protected battery and reverse battery protection

Electronic deep discharge protection: acc. to EN 61347-2-7

Re-charging time: 24h, acc. to EN 60598-2-22

Automatic monitoring: of the emergency light fitting according to EN 62034, indication of the test results by 2-coloured LED (luminescence diode) at the luminaire

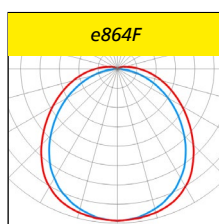
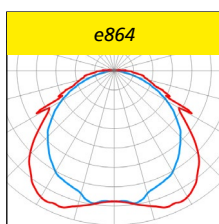
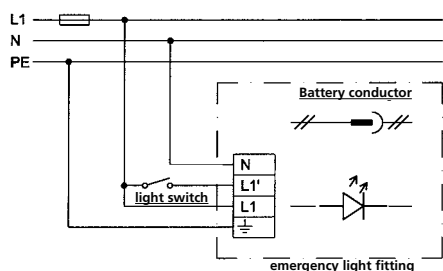
Mode of operation:

maintained operation = switching over to battery operation in case of mains failure, line modules will be operated with reduced luminous flux as emergency lighting.

stand-by operation = switching on in case of mains failure.

Options:

- 4.500K, light colour 845
- remote switch
- Emergency lighting unit with DALI interface for dimming and central monitoring, compatible with LIMAS Line (DIMDI) Light Management System
- with through wiring system



Starting:

Connect battery conductor.

Out-of-operation: separate battery conductor.

Stand-by operation: Do not connect L1'.

Product highlights:

- safety in case of an emergency, instant light with maximum light output
- operation in maintained, switched maintained or stand-by mode possible
- multifunctional LED with coded indication of the functions, states and potential faults of the electronic device and the battery
- automatic weekly function test
- automatic annual duration test
- manual actuation of duration test is possible
- easy battery replacement due to connector
- innovative encapsulation with high transmission rate
- LED-Modules protected from mechanical or electrostatic damages by sandwich design of reflector and cover
- homogeneous illumination by using frosted diffusers (versions e864F..) no individual light points visible, comfortable perception of light, brilliant glare limitation
- high colour rendering index CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- **FastFix mounting**, system for variable mounting distances and easy installation (retaining clips HK865 P) without opening the fitting
- ECG and reflector with LED-modules **replacable by qualified personnel on-site**

Properties, limitations and details for controlling LED-light fittings:

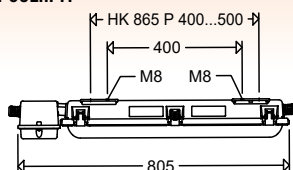
See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

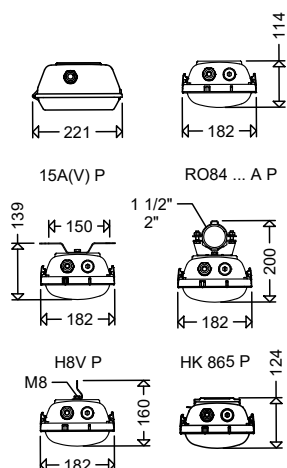
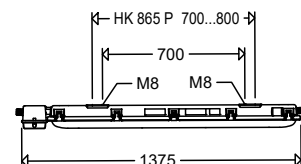
Note:

This light fitting is not suitable for applications in areas with permanent high humidity in combination with only short periods of operation, such as sewage or stormwater retention tanks or water treatment plants.

e864 06L... H



e864 12L...



Fasteners

KE/KES VE10
KES P



KE/KES G2 VE10
KES G2 P



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous flux [lm] (emergency)	Luminous efficacy [lm/W]	Cover frosted	Cover clear	1h operation time	3h operation time	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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e864...



II 2 G Ex db eb [ib] mb q IIC T4 Gb

II 2 D Ex tb IIIC T80°C Db

IP66



EC-Type Examination Certificate:

IBExU 17 ATEX 1026

Other approvals:

IECEX IBE 17.0016

Ignition protection: ec

Marking:

II 2 G Ex db eb [ib] mb q IIC T4 Gb (Zone 1)

II 2 D Ex tb IIIC T80°C Db (Zone 21)

Rated voltage: 220-240V AC, 50/60Hz.

Permissible ambient temperature:

-30°C up to +55°C

Normal range acc. to EN 60598-2-22 0°C up to 45°C, reduced emergency light duration if operated below 0°C.

86400 0050	e864F 06L22/1/1,6	18	2.170	700	121	•	•	•	55	2 x 18W	6,2
86400 0052	e864F 06L42/1/1,6	29	4.100	700	141	•	•	•	50	2 x 36W	6,4
86400 0051	e864F 06L22/3/4	18	2.170	700	121	•	•	•	55	2 x 18W	6,4
86400 0053	e864F 06L42/3/4	29	4.100	700	141	•	•	•	50	2 x 36W	6,6
86400 0001	e864F 12L42/1/1,6	29	4.360	750	150	•	•	•	55	2 x 36W	7,6
86400 0002	e864F 12L60/1/1,6	41	6.020	750	147	•	•	•	55	2 x 58W	7,6
86400 0101	e864F 12L42/3/4	29	4.360	750	150	•	•	•	55	2 x 36W	8,0
86400 0102	e864F 12L60/3/4	41	6.020	750	147	•	•	•	55	2 x 58W	8,0
86400 0011	e864 12L42/1/1,6	29	4.590	800	158	•	•	•	55	2 x 36W	7,6
86400 0012	e864 12L60/1/1,6	41	6.320	800	155	•	•	•	55	2 x 58W	7,6
86400 0111	e864 12L42/3/4	29	4.590	800	158	•	•	•	55	2 x 36W	8,0
86400 0112	e864 12L60/3/4	41	6.320	800	155	•	•	•	55	2 x 58W	8,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories / Spare Parts

Article No.	Type	
Spare batteries		
90222 9021	AKKU 2627 4,0Ah	Spare battery 4.0Ah
90222 9023	AKKU 8020 1,6Ah	Spare battery 1.6Ah
Spare covers		
86601 9014	8652F	PC, frosted for 06L..
86601 9001	8654F	PC, frosted for 12L..
86601 9000	8654	PC, clear for 12L..
Fasteners		
90055 9004	KE/KES VE10	stainless steel, incl. 2 safety clips (packing unit 10 pcs.) see picture on the left, for e 864 12L.. until year of manufacture 2020
90055 9005	KES P	1 pair of safety clips stainless steel for e864 12L.. until year of manufacture 2020
90055 9007	KE/KES G2 VE10	stainless steel, incl. 2 safety clips (packing unit 10 pcs.) see picture on the left, for e 864 12L.. from year of manufacture 2020 and for e 864 06L..
90055 9006	KES G2 P	1 pair of safety clips stainless steel for e864 12L.. from year of manufacture 2020 and for e864 06L..
Glands/breather		
90117 9006	2537 G	ex-protected plastic cable gland M25 x 1,5 with nut
90118 9006	2538 G	ex-protected plastic plug M25 x 1,5 with nut
90259 9000	KS25 EX	ex-breather M25 x 1,5
Mounting material		
86501 9003	HK 865 P	2 retaining clips for variable mounting distances
90001 0002	H8V P	2 suspensions brackets, stainless steel
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
90037 0004	RO84 112 A P	2 pipe clamps 1 1/2", stainless steel, with support
90038 0004	RO84 2 A P	2 pipe clamps 2", stainless steel, with support
26000 0004	W26 P	2 wall mounting angles
26000 0002	W26/30 P	2 wall mounting angles 30°
26000 0003	W26/45 P	2 wall mounting angles 45°

LED-Light Fitting for Ex-Zone 1/21 Series e840...



Note:

This light fitting is not suitable for application in areas with permanent high humidity in combination with only short periods of operation, such as sewage or stormwater retention tanks or water treatment plants.

Applications:

Hazardous locations of Zone 1/2 (gas) and 21/22 (dust) .

Design:

Housing: Glass fibre reinforced polyester resin.

Cover: Clear polycarbonate with internal prisms, hinged, silicone gasket.

Central locking system: Operated by a hexagonal socket wrench 13mm.

Reflector: Aluminium, carrying the encapsu-

lated LED-modules with frosted covers for glare limitation, hingeable and removable.

Connection: 3 poles up to 4 mm².

Cable entries: 3 entries M25 x 1,5, (2 glands - one of them is plugged), PM-version: 1 x M20 x 1,5..

Standard: Facing downwards or forwards.

Mechanical installation:

Mounting accessories see spare parts/ accessories.

Technical Data:

LED: Line modules appr. 6,500K, CRI > 80, lifetime L₈₀ > 100.000h,

L₉₀ > 85.000h (06L..), L₉₀ > 75.000h (12L..) at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature

ECG: 220-240V AC/DC, 0 or 50/60Hz, overvoltage, overload and short circuit protection

Options:

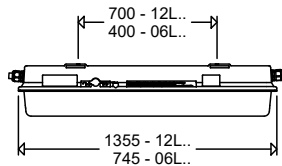
- 4.500K, light colour 845
- for connection to group or central battery (light fittings of version ZB only) or emergency mains respectively
- with monitoring module for monitoring the individual light fitting
- Control gear with dimming function via DALI2-compatible interface, suitable

for the LIMAS Line Light Management System (DIMD)

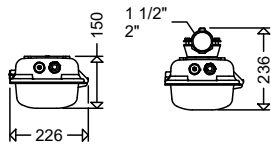
- with through-wiring 5 x 2,5mm²

- for higher ambient temperatures up to +65°C depending on version

- with through wiring system

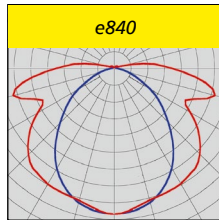
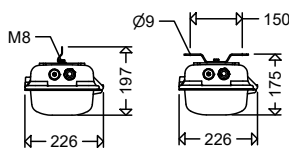


RO84 ... A P



H8V P

15A(V) P

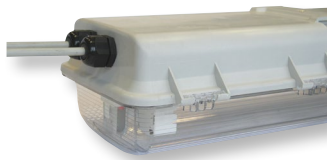


Product highlights:

- extremely robust construction of housing and diffuser
- comfortable central locking mechanism for easy maintenance
- innovative encapsulation with high transmission rate
- homogene lighting distribution by frosted anti-glare modules-protecting the LEDs as well of ESD and mechanical damage. No individual light points visible, comfortable perception of light, brilliant glare limitation.
- high colour rendering index CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- ECG and reflector with LED-modules replaceable by qualified personnel on-site



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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Looping the cable on one side:

All light fittings of series e840... have got 2 cable entries on one small side of the housing for cable looping instead of the through wiring system.



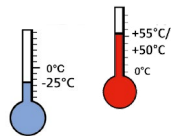
EC-Type Examination Certificate:

IBExU 19 ATEX 1135

Other approvals:

IECEX-Nr. IBE 19.0027

Ignition protection: eb



Marking:

II 2 G Ex eb mb op is q IIC T4 Gb (Zone1)

II 2 D Ex op is tb IIIC T80°C Db (Zone 21)

Rated voltage: 220-240V AC/DC, 0 or 50/60Hz.

Permissible ambient temperature:

-25°C up to see article table

84005 0011	e840 06L22	16	2.054	128	55	2 x 18W	5,6
84005 0012	e840 06L42	28	4.067	145	55	2 x 36W	5,7
84005 0001	e840 12L42	28	4.230	151	55	2 x 36W	8,0
84005 0002	e840 12L60	40	5.850	146	55	2 x 58W	8,0
84005 0003	e840 12L85	54	8.300	154	50	> 2 x 58W	8,5

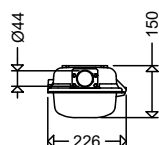
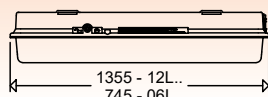
* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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e840... PM



II 2 G Ex eb mb
op is q IIC T4 Gb

II 2 D Ex op is
tb IIIC T80°C Db

IP66



Pole mounted light fitting with integrated mounting system

EC-Type Examination Certificate:

IBExU 19 ATEX 1135

Other approvals:

IECEX-Nr. IBE 19.0027

Ignition protection: eb

Marking:

II 2 G Ex eb mb op is q IIC T4 Gb (Zone 1)

II 2 D Ex op is tb IIIC T80°C Db (Zone 21)

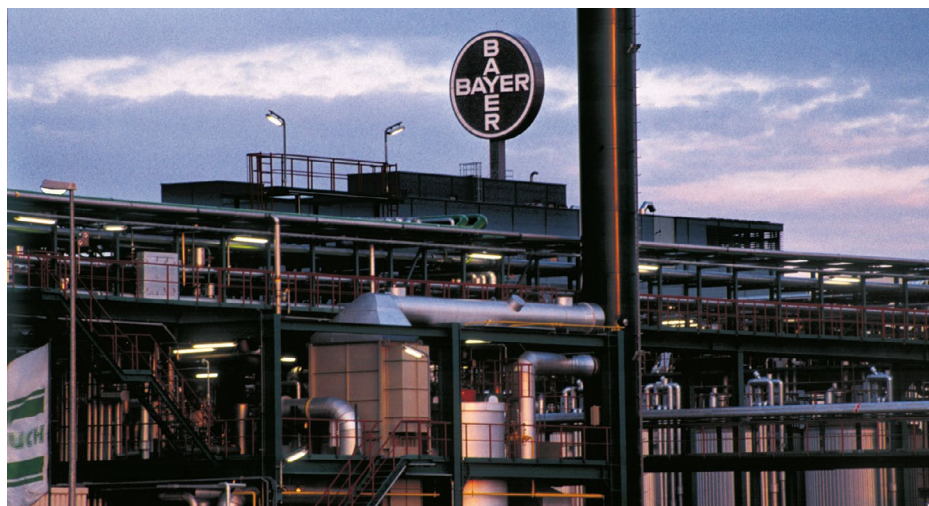
Rated voltage: 220-240V AC/DC,
0 or 50/60Hz

Mechanical installation: integrated mounting system 06L: Ø 42 x 150mm (Length)
12L: Ø 42 x 245mm (Length)

Permissible ambient temperature:
-25°C up to see article table

84005 0911	e840 06L22 PM	16	2.054	128	55	2 x 18W	7,9
84005 0912	e840 06L42 PM	28	4.067	145	55	2 x 36W	8,0
84005 0901	e840 12L42 PM	28	4.230	151	55	2 x 36W	8,1
84005 0902	e840 12L60 PM	40	5.850	146	55	2 x 58W	8,1
84005 0903	e840 12L85 PM	54	8.300	154	50	> 2 x 58W	8,7

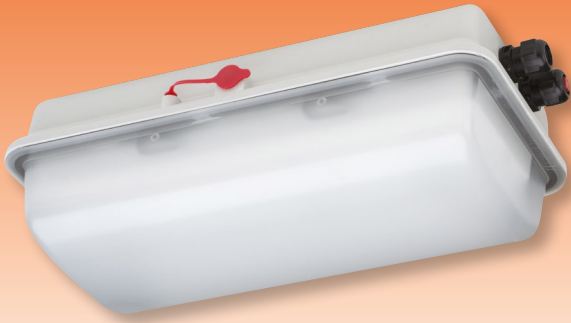
* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.



Accessories / Spare Parts

Article No.	Type	
Spare diffuser		
84001 9006	8402 SIL	for e840 06L... manufactured until 2018, please see type plate of light fitting: article no. without "G" at the end
84001 9007	8402 SIL G	for e840 06L... manufactured from 2018, please see type plate of light fitting: article no. with "G" at the end
84001 9004	8404 SIL	for e840 12L...
Cable glands/breather		
90117 9000	2537	ex-protected plastic cable gland M25 x 1,5 with nut
90118 9000	2538	ex-protected plastic plug M25 x 1,5 with nut
90259 9000	KS25 EX	ex-breather M25 x 1,5
Mounting material		
90001 0002	H8V P	2 suspensions eyes with bolts, stainless steel
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
90000 0011	84 AA	1 pair of brackets, stainless steel, for compensating the different mounting distances of types e840 / e152 or e841 / e148
90037 0004	RO84 112 A P	2 pipe clamps 1 ½", stainless steel, with support
90038 0004	RO84 2 A P	2 pipe clamps 2", stainless steel, with support
26000 0008	W 26/L P	2 wall mounting angles
26000 0002	W 26/30 P	2 wall mounting angles 30°
26000 0003	W 26/45 P	2 wall mounting angles 45°

Small LED-Light Fittings for Ex-Zone 1/2/1 Series e855...



Applications:

Hazardous areas in Zones 1/2 (gas) and 21/22 (dust) as standard illumination for small rooms and above doors, i.e. as information or escape route lighting with pictograms.

Design:

Housing: Glass fibre reinforced polyester resin.

Diffuser: Clear polycarbonate, frosted, detachable, silicone gasket.

Reflector: white, detachable, carrying

the encapsulated LED-modules and protection cover.

Central locking system: Operated by a hexagonal box spanner 13mm.

Connection: Prepared for looping the mains cable. Terminal L1+N+PE; up to 2,5mm².

Cable entries: 2 entries M25 x 1.5 at one of the front side (2 cable glands, 1 with blanking plug).

Mounting: Side fixing brackets allow direct mounting on to walls or ceilings.

Technical Data:

LED: Line modules appr. 6,500K, CRI > 80, lifetime L₈₀ > 100.000h, L₉₀ > 95.000h at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature

ECG: 220-240V AC/DC, 0 or 50/60Hz, overvoltage, overload and short circuit protection

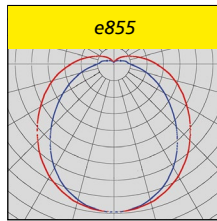
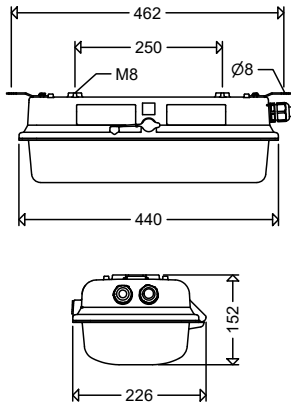
Options:

- for connection to group or central battery (light fittings of version ZB only) or emergency mains respectively
- with monitoring module for monitoring the individual light fitting

- Control gear with dimming function via DALI2-compatible interface, suitable for the LIMAS Line Light Management System (DIMD)
- preparation for a 5-core looping

Note:

This light fitting is not suitable for application in areas with permanent high humidity in combination with only short periods of operation, such as sewage or stormwater retention tanks or water treatment plants.



Product highlights:

- extremely robust construction of housing and diffuser
- comfortable central locking mechanism for easy maintenance
- innovative encapsulation with high transmission rate
- LED protecting cover against ESD and mechanical damage
- homogeneous illumination due to frosted covers on the reflector for glare limitation, no individual light points visible, comfortable perception of light, brilliant glare limitation
- high colour rendering index CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- ECG and reflector with LED-modules **replacable by qualified personnel on-site**



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Suitable for pictogramm	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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e855...



II 2 G Ex eb mb
op is q II C T4 Gb

II 2 G Ex db eb mb
op is q II C T4 Gb

II 2 D Ex op is tb
IIIC T80°C Db

IP66



EC-Type Examination Certificate:

IBExU 17 ATEX 1132

Other approvals:

IECEx IBE 17.0037

Type of protection: eb (increased safety)

Marking:

II 2 G Ex eb mb op is q II C T4 Gb (Zone 1)

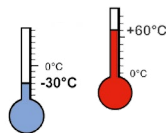
II 2 D Ex op is tb IIIC T80°C Db (Zone 21)

Rated Voltage: 220-240V AC, 176-275V

DC, 50/60Hz

Permissible ambient temperature:

-30°C up to see article table



85500 0007	e855F L05	5	510	102	•	60	1 x 8W	5,0
85500 0001	e855F L10	10	1.060	106		60	2 x 8W	5,0
85500 0002	e855F L20	18	2.050	114		60	2 x 18W	5,1
85500 0003	e855F L10 DIMD	10	1.060	106		60	2 x 8W	5,0
85500 0004	e855F L20 DIMD	18	2.050	114		60	2 x 18W	5,1

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Photo: BASF



Self-adhesive pictograms for identification of escape routes acc. to DIN EN ISO 7010 and ASR A1.3.



121/33 W

.../34 W

.../35 W

Viewing distance = 30m

Accessories / Spare Parts

Article No.	Type	
Spare diffuser		
85501 9001	855	PC frosted
Cable entries/Glands/Breather		
90117 9000	2537	ex-protected plastic cable gland M25 x 1,5
90118 9000	2538	ex-protected plastic plug M25 x 1,5
90259 9000	KS25 EX	ex-breather M25 x 1,5
Mounting material		
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
90037 0004	RO84 112 A P	2 pipe clamps 1 1/2", stainless steel, with support
90038 0004	RO84 2 A P	2 pipe clamps 2", stainless steel, with support
26000 0008	W 26/L P	2 wall mounting brackets
26000 0002	W 26/30 P	2 wall mounting brackets 30°
26000 0003	W 26/45 P	2 wall mounting brackets 45°
Self-adhesive pictograms		
12112 0006	121/33 W	emergency exit to the left
12112 0007	121/34 W	emergency exit to the right
12112 0008	121/35 W	emergency exit below



Small LED-Emergency Light Fitting for Ex-Zone 1/21 Series e856 ...

Applications:

Hazardous areas in Zones 1/2 (gas) and 21/22 (dust) as safety illumination e.g. for workstations with special hazard, i.e. as information or escape route lighting with pictogram for identification of escape routes.

Mechanical design:

Housing: Glass fibre reinforced polyester resin. Version H with separate battery box at one small side of the housing.

Diffuser: Clear polycarbonate, frosted, detachable, silicone gasket.

Reflector: white, detachable, carrying

the encapsulated LED-modules and protection cover.

Central locking system: Operated by a hexagonal box spanner 13mm.

Connection: Prepared for looping the mains cable at one end 4 x 2.5mm². Terminal L1 + L1' + N + PE, up to 2.5 mm².

Cable entries: 2 entries M25 x 1.5 at the front side of the light fitting (2 cable glands, 1 with blanking plug).

Mounting: Side fixing brackets allow direct mounting on to walls or ceilings (Version without battery box). Mounting accessories see spare parts/ accessories.

Technical Data:

LED: Line modules ca. 6,500K, CRI > 80, lifetime L₈₀ > 100.000h, L₉₀ > 95.000h at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature

ECG with emergency light electronic

Incorporated NiCd battery, electronic charger, short circuit protected battery and reverse battery protection

Electronic deep discharge protection: acc. to EN 61347-2-7

Re-charging time: 24h, acc. to EN 60598-2-22

Automatic monitoring: of the emergency light fitting according to EN 62034, indication of the test results by 2-coloured LED (luminescence diode) at the luminaire

Mode of operation:

maintained operation = switching over to battery operation in case of mains failure, line modules will be operated with reduced luminous flux as emergency lighting.

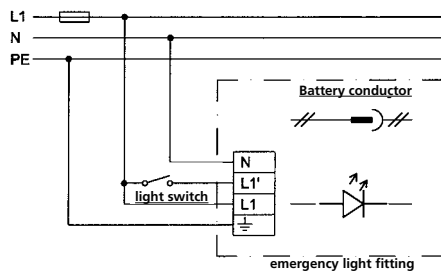
stand-by operation = switching on in case of mains failure.

Options:

- Emergency lighting unit with DALI interface for dimming and central monitoring, compatible with LIMAS Line (DIMDI) Light Management System
- remote switch
- preparation for a 6-core looping at one end

Note:

This light fitting is not suitable for application in areas with permanent high humidity in combination with only short periods of operation, such as sewage or stormwater retention tanks or water treatment plants.

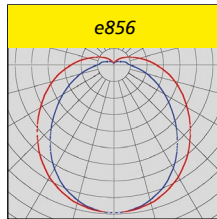


Starting:

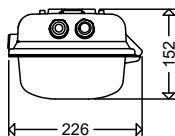
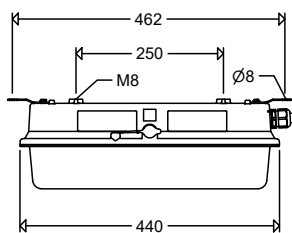
Connect battery conductor.

Out-of-operation: separate battery conductor.

Stand-by operation: Do not connect L1'.



e856F ... (without battery box)



Product highlights:

- extremely robust construction of housing and diffuser
- comfortable central locking mechanism for easy maintenance
- **innovative encapsulation with high transmission rate**
- homogeneous lighting distribution by frosted anti-glare modules-protecting the LEDs as well of ESD and mechanical damage. No individual light points visible, comfortable perception of light, brilliant glare limitation
- **high colour rendering index CRI > 80**, according to the workplace guide lines suitable for nearly all plant locations
- safety in case of an emergency, instant light with maximum light output
- operation in maintained, switched maintained or stand-by mode possible
- multifunctional LED with coded indication of the functions, states and potential faults of the electronic device and the battery
- automatic weekly function test
- automatic annual duration test
- manual actuation of duration test is possible
- easy battery replacement due to connector
- ECG and reflector with LED-modules **replacable by qualified personnel on-site**



Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

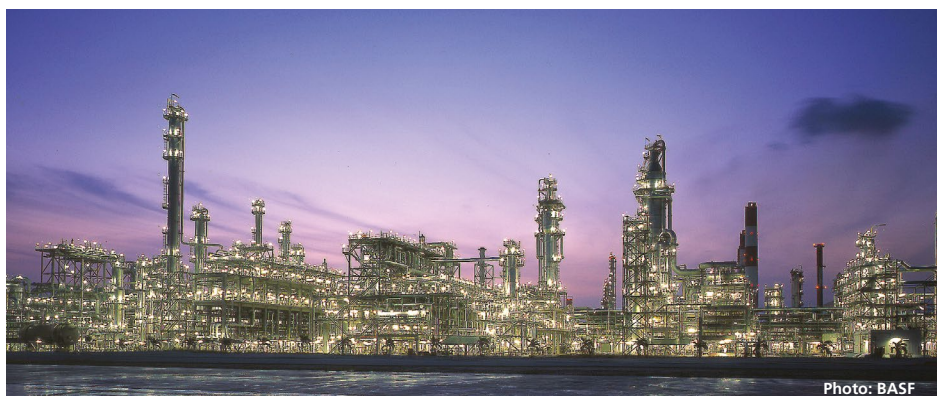


Photo: BASF

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous flux [lm] (emergency)	Luminous efficacy [lm/W]	Suitable for pictogram	1h operation time	3h operation time	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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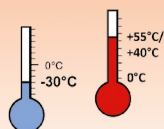
e856...



II 2 G Ex db eb [ib] mb
op is q IIC T4 Gb

II 2 D Ex op is tb
IIIC T80°C Db

IP66



EC-Type Examination Certificate:

IBExU 17 ATEX 1132

Other approvals:

IECEx IBE 17.0037

Type of protection: eb (increased safety)

Marking:

II 2 G Ex db eb [ib]mb op is q IIC T4 Gb
(Zone 1)

II 2 D Ex op is tb IIIC T80°C Db (Zone 21)

Rated voltage: 220-240V AC, 50/60Hz.

Permissible ambient temperature:

-30°C up to +55°C

Normal range acc. to EN 60598-2-22

0°C up to 40° or 55°C (H-Versions).

Reduced emergency light duration if
operated below 0°C.

85600 0017	e856F L05/1/1,6	6	510	510	85	•	•	55	1 x 8W	5,4
85600 0018	e856F L05/3/2,5	6	510	260	85	•	•	55	1 x 8W	5,4
85600 0003	e856F L10/1/1,6	11	1.060	560	96		•	40	2 x 8W	5,4
85600 0004	e856F L10/3/2,5	11	1.060	260	96		•	40	2 x 8W	5,4
85600 0001	e856F L20/1/1,6	19	2.050	560	108		•	40	2 x 18W	5,5
85600 0002	e856F L20/3/2,5	19	2.050	260	108		•	40	2 x 18W	5,6

for high temperatures up to +55°C

Design:

Same as standard version, but with separate battery box at one small side of the housing.

85600 0007	e856F L10/1/1,6 H	11	1.060	560	96	•	•	55	2 x 8W	6,3
85600 0008	e856F L10/3/2,5 H	11	1.060	260	96		•	55	2 x 8W	6,3
85600 0005	e856F L20/1/1,6 H	19	2.050	560	108	•	•	55	2 x 18W	6,4
85600 0006	e856F L20/3/2,5 H	19	2.050	260	108		•	55	2 x 18W	6,5

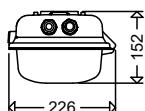
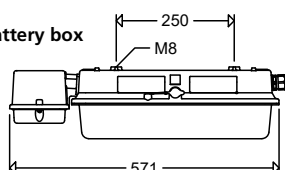
* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.



e856F ... H (with battery box)

light fitting

battery box



Self-adhesive pictograms for identification of escape routes acc. to DIN EN ISO 7010 and ASR A1.3.



121/33 W

.../34 W

.../35 W

Viewing distance = 30m

Accessories / Spare Parts

Article No.	Type	
Spare batteries		
90222 9023	AKKU 8020	Spare battery 1.6Ah
90222 9024	AKKU 8021	Spare battery 2.5Ah
Spare diffuser		
85501 9001	855	PC frosted
Cable entries/Glands/Breather		
90117 9000	2537	ex-protected plastic cable gland M25 x 1,5
90118 9000	2538	ex-protected plastic plug M25 x 1,5
90259 9000	KS25 EX	M25 x 1,5 breather
Mounting material		
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
90037 0004	RO84 112 A P	2 pipe clamps 1 1/2", stainless steel, with support
90038 0004	RO84 2 A P	2 pipe clamps 2", stainless steel, with support
26000 0008	W 26/L P	2 wall mounting brackets
26000 0002	W 26/30 P	2 wall mounting brackets 30°
26000 0003	W 26/45 P	2 wall mounting brackets 45°
Self-adhesive pictograms		
12112 0006	121/33 W	emergency exit to the left
12112 0007	121/34 W	emergency exit to the right
12112 0008	121/35 W	emergency exit below

LED-Steep roof light fitting for Ex-Zone 1/21 Series e821...



Applications:

Hazardous areas of Zones 1 (gas) and 21 (dust), e.g. cleanrooms, paint shops and spray booths.

Design:

Housing: Sheet steel, powder coated in light grey (RAL 7035), silicone foam gasket.

Glass cover: Impact resistant safety glass pane, frameless / hinged.

Central locking system: Operated by a 5mm allen key, internal hinges on the opposite side.

Reflector: Hinged; white painted sheet steel; detachable, carrying the encapsulated LED-modules and glare limitation modules.

Connection: 3 poles up to 4mm².

Cable entries: 3 x M25 x 1,5 (2 glands - one of them is plugged and 1 screw plug).

Standard: Facing downwards or forwards.

Mechanical installation:

Mounting accessories see spare parts/ accessories.

Technical Data:

LED: Line modules appr. 6,500K, CRI > 80, lifetime L₈₀ > 100.000h, L₉₀ > 80.000h at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature

ECG: 220-240V AC/DC, 0 or 50/60Hz, overvoltage, overload and short circuit protection

Options:

- 4,500K, light colour 845
- for connection to group or central battery (light fittings of version ZB only) or emergency mains respectively
- with monitoring module for monitoring the individual light fitting
- housing made from stainless steel, painted

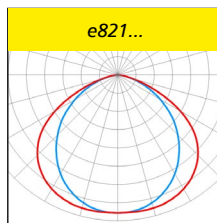
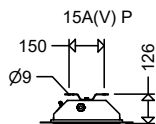
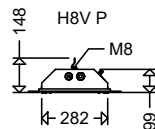
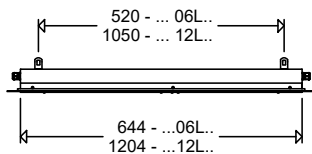
- prepared for 5-core cable looping system
- with through wiring system
- Installation in thermally insulated ceilings (acc. to EN60598)
- for higher ambient temperatures up to +65°C depending on version

STAINLESS STEEL
corrosion resistant



Note:

This light fitting is not suitable for application in areas with permanent high humidity in combination with only short periods of operation, such as sewage or stormwater retention tanks or water treatment plants.



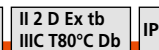
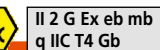
Product highlights:

- extremely flat and robust design
- innovative LED encapsulation with high transmission rate
- perfect protection of the LED from mechanical or electrostatic damages with at the same time homogeneous illumination with glare limitation modules, no individual light points visible, comfortable perception of light, excellent glare limitation
- high colour rendering index CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- comfortable central locking system with internal hinges
- separate, frame for recessed installation or a swivel arm mounting system can easily be installed at a later stage, (frame for recessed installation not suitable for stainless steel version!)
- ECG and reflector with LED-modules **replacable by qualified personnel on-site**
- Suitability for paint booths LABS-tested according to VDMA 24364-C2-L



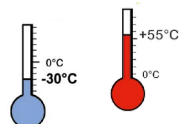
Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)

e821...



Looping the cable on one side:

All light fittings of series e821... have got 2 cable entries on one small side of the housing for cable looping instead of the through wiring system. (3-pole looping standard, 5-pole looping at additional cost)



EC-Type Examination Certificate:

IBExU 20 ATEX 1017

Other approvals:

IECEx IBE 19.0032

Ignition protection: eb

Marking:

II 2 G Ex eb mb q IIC T4 Gb (Zone1)

II 2 D Ex tb IIIIC T80°C Db (Zone 21)

Rated voltage: 220-240V AC/DC, 0 or 50/60Hz.

Permissible ambient temperature:

-30°C up to +55°C

The values given are for versions with through wiring.

82100 0001	e821 06L22	15	2.100	140	55	2 x 18W	7,7
82100 0002	e821 06L42	28	4.110	147	55	2 x 36W	7,9
82100 0003	e821 06L60	40	5.600	140	55	2 x 58W	7,9
82100 0050	e821 12L42	28	4.260	152	55	2 x 36W	13,6
82100 0051	e821 12L60	40	5.900	148	55	2 x 58W	14,0
82100 0052	e821 12L85	54	8.350	155	55	> 2 x 58W	14,0
82100 0053	e821 12L120	79	11.470	145	55	> 3 x 58W	14,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

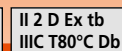
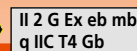
Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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e821... DIMD



dimable via DALI interface

Design:

Same as standard version, but with DALI2-compatible ECG and 2 additional clamping points, marked with DA; the polarity does not matter:

Compatible with LIMAS Line Light Management System.

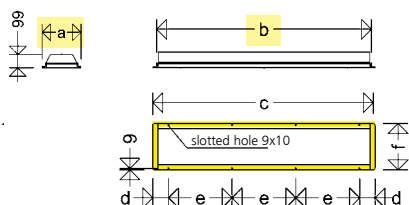
Note:

The conducting wires to the control input must be mains voltage stable and can be integrated in the connection cable.

82100 0005	e821 06L42 DIMD	28	4.110	147	55	2 x 36W	7,9
82100 0006	e821 06L60 DIMD	40	5.600	140	55	2 x 58W	7,9
82100 0054	e821 12L42 DIMD	28	4.260	152	55	2 x 36W	13,6
82100 0055	e821 12L60 DIMD	40	5.900	148	55	2 x 58W	14,0
82100 0056	e821 12L85 DIMD	54	8.350	155	55	> 2 x 58W	14,0
82100 0057	e821 12L120 DIMD	79	11.470	145	55	> 3 x 58W	14,0

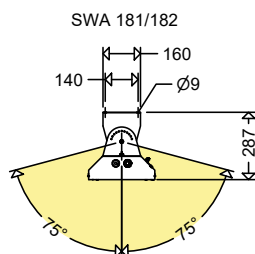
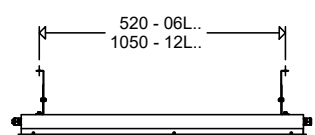
* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Installation dimensions



Type	a	b	c	d	e	f
EB 82. 06L	302	660	710	55	300	348
EB 82. 12L	302	1224	1270	125	340	348

Attention: When planning the opening for recess installation please allow additional clearance for the cable glands.



Swivel range 150°

Further accessories as well as carrier rail systems and through wiring systems are available.

Frame for Recessed Installation

retrofit possible!

Light fittings of series e821... can be equipped with a frame even at a later stage.

Mounting by means of M5 bolts to the long sides of the housing (see drawing).

Article No.	Type	
18091 0020	EB 82. 06L	frame for narrow housing, e821 06L, nD822 06L
18091 0021	EB 82. 12L	frame for narrow housing, e821 12L, nD822 12L

Swivel Arm Mounting System

retrofit possible!

Light fittings of series e821... can be equipped with a swivel arm mounting system at any time.

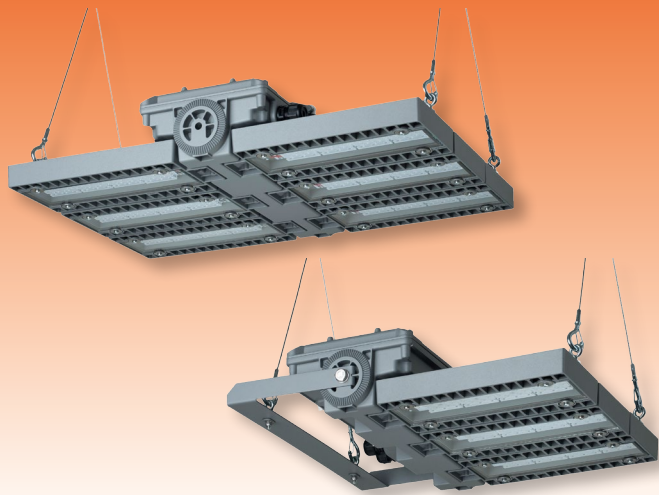
The swivel arms are fixed to the suspen-

sion points at the upper side of the housing. Swivel range: ± 75° (see dimensions in diagram).

Article No.	Type	
18092 0001	SWA 181/182	for all wattages consisting of: 2 swivel arms with bolts M8

Accessories / Spare Parts

Article No.	Type	
Spare glasses		
82101 9001	821 06L	spare glass for e821 06L, nD822 06L
82101 9002	821 12L	spare glass for e821 12L, nD822 12L
Cable entries/cable glands		
90117 9006	2537 G	ex-protected gland of size M25 x 1,5 with nut
90119 9001	2539 G	ex-protected gland of size M25 x 1,5 with nut and plug
90118 9006	2538 G	ex-protected plug of size M25 x 1,5 with nut
Mounting material		
90001 0002	H8V P	2 suspension eyes, stainless steel
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
26000 0005	WD 45 P	2 wall/ceiling angle, steel



ExSTREAM

LED High Bay Fitting for Ex-Zone 1/21

Series e8825...

Applications:

Hazardous areas of Zones 1 (gas) and 21 (dust), in production, assembly and storage halls, workshops, the chemical - petrochemical and pharmaceutical industries, mills, paper mills, etc.

Design:

Available in 2 versions:

With three or six LED modules.

Housing: Die-cast aluminum, multi-part, thermally separated, powder-coated DB702 (mica-iron paint, grey). **LED housing** with LED modules, optics and

safety glass. **Device housing** with built-in control gear, wired ready for connection.

Front cover: Thermally resistant safety glass, impact resistance IK08.

Optics: Lens optics with narrow, narrow-wide or wide beam light distribution, Multi-Layer technology.

Connection: 5 poles, max. clamping range 4mm².

Cable entries: 2 x M25 x 1,5 (2 glands - one of them is plugged)

Mounting: see accessories (4 eyelets included)

Technical Data:

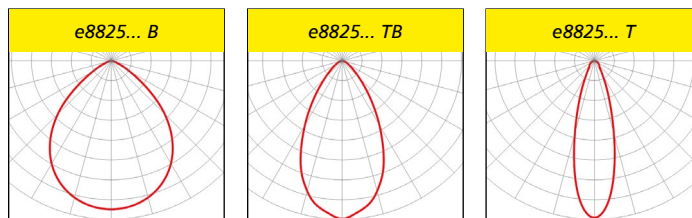
LED-module: approx. 5,500K (TB- and B-optics) or approx. 6,500K (T-optics), CRI > 80, lifetime L₈₀ > 100.000h, L₉₀ > 90.000h at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature

ECG: 220 - 240V AC/DC, 0 or 5 50/60Hz, overvoltage, overload and short circuit protection.

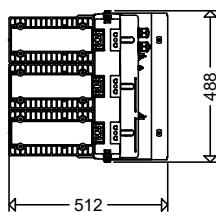
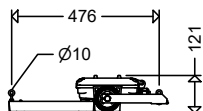
Ambient temperature: -30°C up to +40°C/+55°C (see item tables.)

Options:

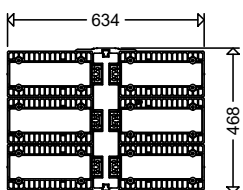
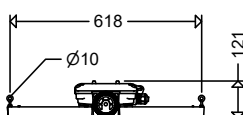
– for ambient temperatures down to -40°C



e8825/3...



e8825/6...



Product highlights:

- robust, modular design
- highly efficient due to the use of high quality MID-Power LEDs
- extremely long lifetime even at maximum permissible ambient temperature
- optimized thermal management
 - direct mounting of the LED modules to the aluminum housing
 - separate housings for ECG- and LED-modules
 - LED housing with integrated cooling fin structure
 - large cooling surface, excellent heat dissipation, very good convection
- colour rendering index CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- homogeneous and effective light distribution by specially calculated lens optics
- sustainable, components interchangeable

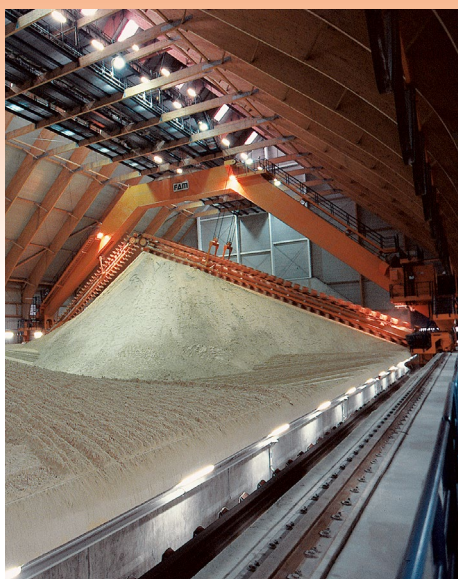


Photo: BASF

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ta max [°C]	Weight [kg] (without packing material)
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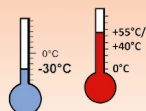
e8825...



II 2 G Ex eb
mb q IIC T4 Gb

II 2 D Ex tb IIIC
T100 °C Db

IP66



EU-Type Examination Certificate:

IBExU 20 ATEX 1117

Other approvals:

IECEX IBE 20.0028

Ignition protection: eb

Marking:

II 2 G Ex eb mb q IIC T4 Gb (Zone 1)

II 2 D Ex tb IIIC T100 °C Db (Zone 21)

Rated voltage: 220V up to 240V AC/DC,

0 or 50/60 Hz

Permissible ambient temperature:

-30°C up to see item tables

wide beam

88250 0001	e8825/3 L120B H55	87	11.850	136	55	8,8
88250 0004	e8825/3 L150B	125	15.800	126	40	8,8
88250 0007	e8825/6 L240B H55	174	23.700	136	55	13,5
88250 0010	e8825/6 L300B	250	31.600	126	40	13,5

narrow wide beam

88250 0002	e8825/3 L120TB H55	87	11.100	128	55	8,8
88250 0005	e8825/3 L150TB	125	14.650	117	40	8,8
88250 0008	e8825/6 L240TB H55	174	22.200	128	55	13,5
88250 0011	e8825/6 L300TB	250	29.300	117	40	13,5

narrow beam

88250 0003	e8825/3 L120T H55	87	10.300	118	55	8,8
88250 0006	e8825/3 L150T	125	13.500	108	40	8,8
88250 0009	e8825/6 L240T H55	174	20.600	118	55	13,5
88250 0012	e8825/6 L300T	250	27.000	108	40	13,5

e8825... DIMD



II 2 G Ex eb
mb q IIC T4 Gb

II 2 D Ex tb IIIC
T100 °C Db

IP66



diminable via DALI interface

Design:

Same as standard version, but with DALI2-compatible ECG and 2 additional clamping points, marked with DA; the polarity does not matter:

Compatible with LIMAS Line Light Management System.

Note:

The conducting wires to the control input must be mains voltage stable and can be integrated in the connection cable.

wide beam

88250 0100	e8825/3 L120B H55 DIMD	87	11.850	136	55	8,8
88250 0103	e8825/3 L150B DIMD	125	15.800	126	40	8,8
88250 0106	e8825/6 L240B H55 DIMD	174	23.700	136	55	13,5
88250 0109	e8825/6 L300B DIMD	250	31.600	126	40	13,5

narrow wide beam

88250 0101	e8825/3 L120TB H55 DIMD	87	11.100	128	55	8,8
88250 0104	e8825/3 L150TB DIMD	125	14.650	117	40	8,8
88250 0107	e8825/6 L240TB H55 DIMD	174	22.200	128	55	13,5
88250 0110	e8825/6 L300TB DIMD	250	29.300	117	40	13,5

narrow beam

88250 0102	e8825/3 L120T H55 DIMD	87	10.300	118	55	8,8
88250 0105	e8825/3 L150T DIMD	125	13.500	108	40	8,8
88250 0108	e8825/6 L240T H55 DIMD	174	20.600	118	55	13,5
88250 0111	e8825/6 L300T DIMD	250	27.000	108	40	13,5

Mounting material

Y-ropes 3301/3302 Y P

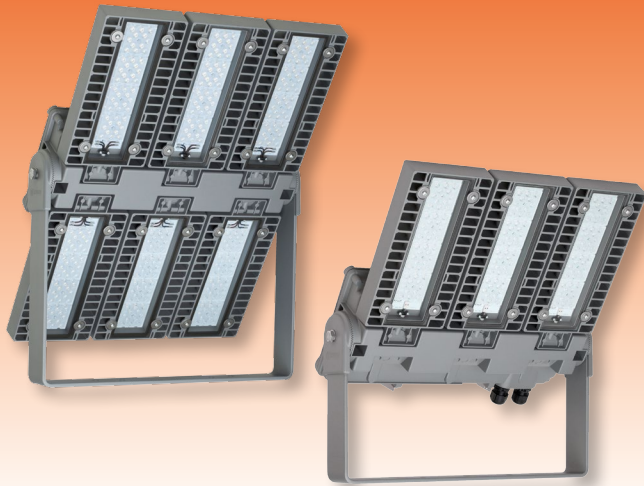


Ceiling brackets steel DW 8825 P



Accessories / Spare Parts

Article no.	Type	
Cable glands		
90117 9000	2537	ex-protected plastic cable gland M25 x 1,5
90119 9000	2539	ex-protected plastic cable gland M25 x 1,5 with plug
Mounting material		
33001 9004	3301/3302 Y P	1 pair of Y-ropes, (2-point-mounting) For indoor use only.
26000 0010	DW 8825 P	1 pair of ceiling brackets steel, powder-coated DB 702



ExSTREAM

LED-Floodlight for Ex-Zone 1/21

Series e8820...

Applications:

Hazardous areas of Zones 1 (gas) and 21 (dust). Oil and gas industry, onshore and offshore, chemical, petrochemical and pharmaceutical plants, refineries, tank farms, loading stations, etc.

Design:

Available in 2 versions:

With three or six LED modules.

Housing: Die-cast aluminum, multi-part, thermally separated, powder-coated DB702 (mica-iron paint, grey). **LED housing** with LED modules, optics and safety glass. **Device housing** with built-in control gear, wired ready for connection.

Front cover: Thermally resistant safety glass, impact resistance IK08.

Optics: Lens optics with narrow, narrow-wide or wide beam light distribution, Multi-Layer technology.

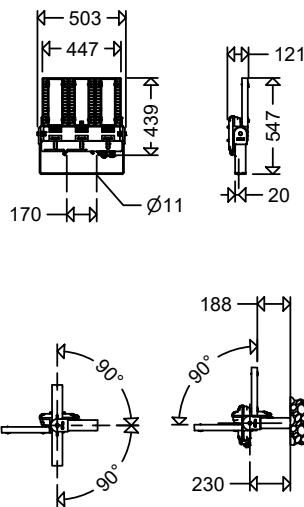
Connection: 5 poles, max. clamping range 4mm².

Cable entries: 2 x M25 x 1,5 (2 glands - one of them is plugged)

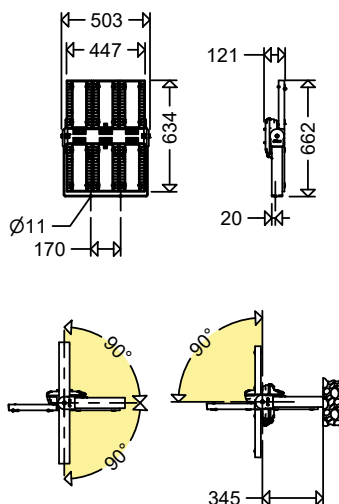
Mounting: Stainless steel bracket, adjustable in 5° steps around the longitudinal axis of the floodlight.

Standard Mounting: Light beam downwards or horizontally.

e8820/3...



e8820/6...



Technical Data:

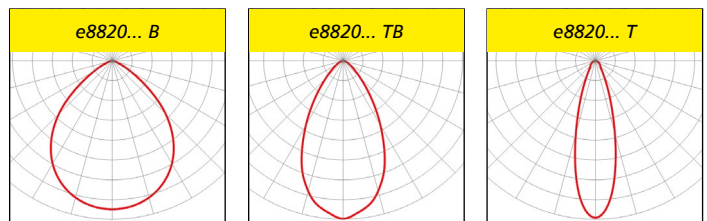
LED-module: approx. 5,500K (TB- and B-optics) or approx. 6,500K (T-optics), CRI > 80, lifetime L₈₀ > 100.000h, L₉₀ > 90.000h at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature

ECG: 220 - 240V AC/DC, 0 or 50/60Hz, overvoltage, overload and short circuit protection.

Ambient temperature: -30°C up to +40°C/+55°C (see item tables.)

Options:

– for ambient temperatures down to -40°C – seawater-resistant version (SWP)



Product highlights:

- robust, modular design
- highly efficient due to the use of high quality MID-Power LEDs
- extremely long lifetime even at maximum permissible ambient temperature
- optimized thermal management
 - direct mounting of the LED modules to the aluminum housing
 - separate housings for ECG- and LED-modules
 - LED housing with integrated cooling fin structure
 - large cooling surface, excellent heat dissipation, very good convection
- colour rendering index CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- homogeneous and effective light distribution by specially calculated lens optics
- inclination angle adjustable in 5° steps
- sustainable, components interchangeable
- eco-friendly friendly with 0° installation (plane surface floodlights), no light emission into the upper half-space, Dark-Sky requirements are fulfilled

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

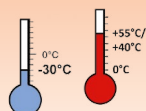


Photo: BASF



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ta max [°C]	Weight [kg] (without packing material)
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e8820...



EU-Type Examination Certificate:

IBExU 20 ATEX 1117

Other approvals:

IECEx IBE 20.0028

Ignition protection: eb

Marking:

II 2 G Ex eb mb q IIC T4 Gb (Zone 1)

II 2 D Ex tb IIIC T100 °C Db (Zone 21)

Rated voltage: 220V up to 240V AC/DC,

0 or 50/60 Hz

Permissible ambient temperature:

-30°C up to see item tables

wide beam

88200 0001	e8820/3 L120B H55	87	11.850	136	55	11,2
88200 0004	e8820/3 L150B	125	15.800	126	40	11,2
88200 0007	e8820/6 L240B H55	174	23.700	136	55	17,2
88200 0010	e8820/6 L300B	250	31.600	126	40	17,2

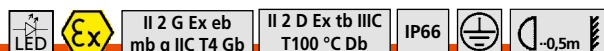
narrow wide beam

88200 0002	e8820/3 L120TB H55	87	11.100	128	55	11,2
88200 0005	e8820/3 L150TB	125	14.650	117	40	11,2
88200 0008	e8820/6 L240TB H55	174	22.200	128	55	17,2
88200 0011	e8820/6 L300TB	250	29.300	117	40	17,2

narrow beam

88200 0003	e8820/3 L120T H55	87	10.300	118	55	11,2
88200 0006	e8820/3 L150T	125	13.500	108	40	11,2
88200 0009	e8820/6 L240T H55	174	20.600	118	55	17,2
88200 0012	e8820/6 L300T	250	27.000	108	40	17,2

e8820... DIMD



dimable via DALI interface

Design:

Same as standard version, but with DALI2-compatible ECG and 2 additional clamping points, marked with DA; the polarity does not matter:

Compatible with LIMAS Line Light Management System.

Note:

The conducting wires to the control input must be mains voltage stable and can be integrated in the connection cable.

wide beam

88200 0100	e8820/3 L120B H55 DIMD	87	11.850	136	55	11,2
88200 0103	e8820/3 L150B DIMD	125	15.800	126	40	11,2
88200 0106	e8820/6 L240B H55 DIMD	174	23.700	136	55	17,2
88200 0109	e8820/6 L300B DIMD	250	31.600	126	40	17,2

narrow wide beam

88200 0101	e8820/3 L120TB H55 DIMD	87	11.100	128	55	11,2
88200 0104	e8820/3 L150TB DIMD	125	14.650	117	40	11,2
88200 0107	e8820/6 L240TB H55 DIMD	174	22.200	128	55	17,2
88200 0110	e8820/6 L300TB DIMD	250	29.300	117	40	17,2

narrow beam

88200 0102	e8820/3 L120T H55 DIMD	87	10.300	118	55	11,2
88200 0105	e8820/3 L150T DIMD	125	13.500	108	40	11,2
88200 0108	e8820/6 L240T H55 DIMD	174	20.600	118	55	17,2
88200 0111	e8820/6 L300T DIMD	250	27.000	108	40	17,2

Accessories / Spare Parts

Article no.	Type	
Cable glands		
90117 9000	2537	ex-protected plastic cable gland M25 x 1,5
90119 9000	2539	ex-protected plastic cable gland M25 x 1,5 with plug
Mounting material		
90270 0006	ROB 60/76 G2	Pipe clamp fastening for direct pole mounting; galvanised steel



ExGLOBE LED-Ceiling- or Wall-mounting light fitting for Ex-Zones 1/21 Series e9312

Applications:

Hazardous locations of zones 1 (gas) and 21 (dust) with low requirements for illuminance, strained field conditions or hard to reach areas.

Design:

Housing: Diecast aluminium, untreated.

Electrical kit: Diecast aluminium, with LED-Module and integrated ECG.

Cover: Polycarbonate, frosted.

Wire guard: Galvanized steel (OSK without wire guard).

Connection:

3 pole terminal, max. connection range 2,5mm².

Cable entry system:

2 x M25 x 1,5 (1 gland and 1 plug).

Mounting: 2 cast on brackets for wall or ceiling mounting

Operating position: Any method except.

Technical Data:

LED: approx. 6,500K, CRI typically 80

Rated voltage: 220-240V AC/DC

Admissible ambient temperature: -25°C up to +40°C

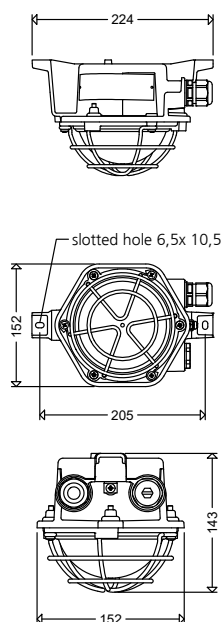
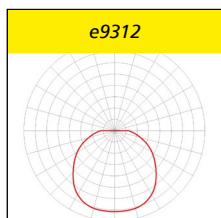
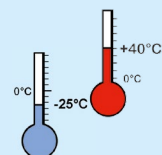
Options:

– 5-pole connection, max. connection range 2,5mm²

– with 2 cable glands M25 x 1,5mm²

Product highlights:

- robust, corrosion-resistant housing
- outer screws and bolts made of stainless steel
- shock resistant PC-cover
- additional safety due to robust wire guard
- **homogeneous illumination by using frosted cover**, no particular light points visible, comfortable perception of light, brilliant glare limitation
- wide range of admissible ambient temperature -25°C up to +40°C
- easy mounting with outer fixing points



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
e9312		II 2G Ex eb mb IIC T4 Gb	II 2D Ex tb IIC T80°C Db	IP66	

EC-Type Examination Certificate:
in preparation

Ignition protection: „e“ (increased safety)

Marking:

II 2G Ex eb mb IIC T4 Gb (Zone 1)

II 2D Ex tb IIC T80°C Db (Zone 21)

93120 0001	e9312F SK	11	600	55	1,3
93120 0002	e9312F	11	600	55	1,2

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Accessories / Spare Parts

Article no.	Type	
93101 9000	9309F	spare glass, frosted
93101 9001	930A	spare wire guard
90117 9000	2537	plastic gland M25x1,5
90118 9000	2538	plastic plug M25x1,5



ExSPECT LED Handlamp for Ex-Zones 1/21 Series e9310

Applications:

For use as work lighting in hazardous areas of Zones 1, 2 and 21, 22 which cannot be illuminated by any general lighting equipment.

Design:

Handle: Made of rubber (EPDM), with suspension eye, cable relief, cable entry

M20 x 1,5mm² with bend protection.

Electrical kit: Diecast aluminium, with LED-Module and integrated ECG.

Cover: Polycarbonate, frosted

Wire guard: Round steel, cage hook for suspension purpose.

Operating position: Any method except.

Technical Data:

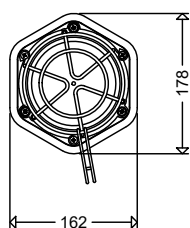
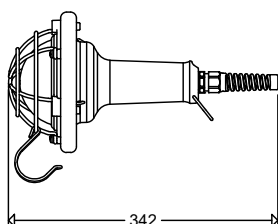
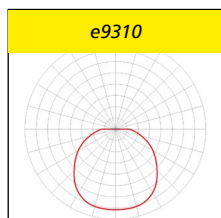
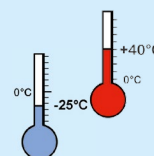
LED: approx. 6,500K, CRI typically 80

Rated voltage: 220 - 240V AC/DC

Admissible ambient temperature: -25°C up to +40°C

Product highlights:

- robust design for reliable and safe long-term use
- sturdy handhold
- shock resistant PC-cover
- additional safety due to robust wire guard
- high degree of protection IP66 (dust-proof and jet-proof)
- user-friendly and for various applications
- light weight
- suspension eye and cage hook
- homogeneous illumination by using frosted cover, no particular light points visible, comfortable perception of light, brilliant glare limitation
- ATEX-certified for gas and dust hazardous areas (Zones 1/21 and 2/22)
- ATEX-certified for explosion group II C and temperature class T4
- wide range of admissible ambient temperature from -25°C to +40°C



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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e9310



II 2G Ex eb mb
op is IIC T4 Gb

II 2D Ex op is tb
IIIC T80°C Db

IP66



EC-Type Examination Certificate:

IBExU 19 ATEX 1134

Other approvals:

IECEx IBE 19.0028

Marking:

II 2G Ex eb mb op is IIC T4 Gb (Zone 1)

II 2D Ex op is tb IIIC T80°C Db (Zone 21)

Ignition protection: „e” (increased safety)

93100 0001	e9310F	11	600	55	1,3
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Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Accessories / Spare Parts

Article no.	Type	
93101 9003	9308F	spare glass, frosted
93101 9004	930B	spare wire guard, with suspension hook
93101 9002	93KT	cable gland with bend protection



ExeLED 2

LED-Light Fitting for Ex-Zones 2/22

Series nD866...

Applications:

Hazardous locations of zones 2 (gas) and 22 (dust).

Design:

Housing: Glass fibre reinforced polyester resin.

Cover: Injected polycarbonate, frosted (F) or clear, silicone gasket.

Closure: Stainless steel clips (KE), two of them as safety clip (KES), to be opened with screwdriver only.

Reflector: Sheet Steel, painted, carrying the

LED-modules and all electrical components, clipped into the cover, suspendable.

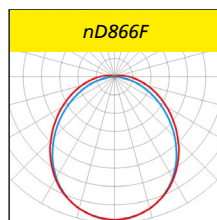
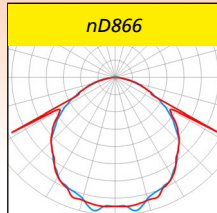
Connection: 3 poles up to 2,5 mm².

Cable entries: 3 entries M25 x 1,5, (2 glands - one of them is plugged)

Standard: Facing downwards or forwards.

Mechanical installation:

Direct ceiling mounting is possible. Rubber washers are included. Further mounting options see accessories / spare parts.



Technical Data:

LED: Line modules 5,000K, CRI > 80, lifetime L₈₀ > 100.000h, L₉₀ > 80.000h (06L..), L₉₀ > 90.000h (12L..) at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature
ECG: 220-240V AC/DC, 0 or 50/60Hz, overvoltage, overload and short circuit protection

Options:

– for connection to group or central battery (light fittings of version ZB only) or emergency mains respectively

– with monitoring module for monitoring the individual light fitting
 – with through wiring system

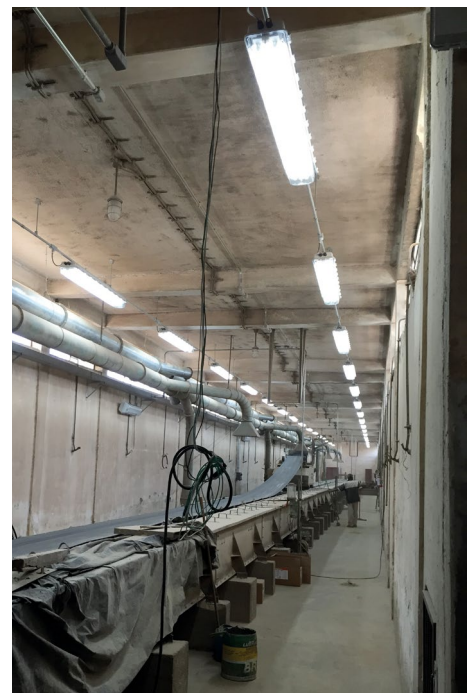
Product highlights:

- Reflector and cover in sandwich design to protect the LED-Modules from mechanical or electrostatic damages due to accidental contact
- homogeneous illumination by using frosted diffusers (versions nD866F..) no individual light points visible, comfortable perception of light, brilliant glare limitation
- high colour rendering index CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- FastFix mounting, system for variable mounting distances and easy installation (retaining clips HK865 P) without opening the fitting
- ECG and reflector with LED-modules replaceable by qualified personnel on-site



Looping the cable on one side:

All light fittings of series nD866... have got 2 cable entries on one small side of the housing for cable looping instead of the through wiring system.



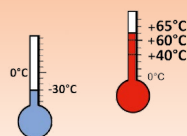
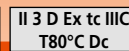
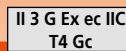
Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Cover frosted	Cover clear	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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nD866...



EC-Type Examination Certificate:

IBExU 16 ATEX B006

Other approvals:

IECx IBE 15.0015

Ignition protection: ec

Marking:

II 3 G Ex ec IIC T4 Gc (Zone 2)

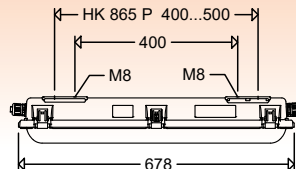
II 3 D Ex tc IIIC T80°C Dc (Zone 22)

Rated voltage: 220-240V AC/DC, 0 or 50/60Hz.

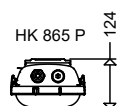
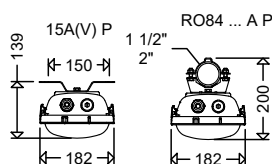
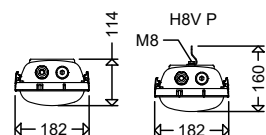
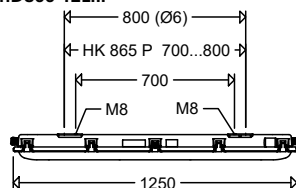
Permissible ambient temperature:

-30°C see article table

nD866 06L...

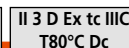
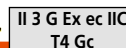


nD866 12L...



86600 0050	nD866F 06L22	15	2.170	145	•	40	2 x 18W	3,3
86600 0051	nD866F 06L42	28	4.120	147	•	40	2 x 36W	3,4
86600 0052	nD866F 06L60	40	5.700	143	•	40	2 x 58W	3,4
86600 0002	nD866F 12L42	28	4.360	156	•	40	2 x 36W	5,4
86600 0003	nD866F 12L60	40	6.020	151	•	40	2 x 58W	5,4
86600 0004	nD866F 12L85	54	8.620	160	•	40	> 2 x 58W	5,5
86600 0012	nD866 12L42	28	4.590	164	•	40	2 x 36W	5,4
86600 0013	nD866 12L60	40	6.320	158	•	40	2 x 58W	5,4
86600 0014	nD866 12L85	54	9.010	167	•	40	> 2 x 58W	5,5

nD866... DIMD



dimable via DALI interface

Design:

Same as standard version, but with DALI2-compatible ECG and 2 additional clamping points, marked with DA, the polarity does not matter:

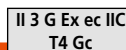
Compatible with LIMAS Line Light Management System.

Note:

The conducting wires to the control input must be mains voltage stable and can be integrated in the connection cable.

86600 0951	nD866F 06L42 DIMD	28	4.120	147	•	40	2 x 36W	3,4
86600 0953	nD866F 06L60 DIMD	40	5.700	143	•	40	2 x 58W	3,4
86600 0018	nD866F 12L42 DIMD	28	4.360	156	•	40	2 x 36W	5,4
86600 1903	nD866F 12L60 DIMD	40	6.020	151	•	40	2 x 58W	5,4
86600 0904	nD866F 12L85 DIMD	54	8.620	160	•	40	> 2 x 58W	5,5

nD866... H..



for high temperature ¹⁾

86600 0005	nD866F 12L42 H65	28	4.360	156	•	65	2 x 36W	5,4
86600 0008	nD866F 12L60 H60	40	6.020	151	•	60	2 x 58W	5,4
86600 0015	nD866 12L42 H65	28	4.590	164	•	65	2 x 36W	5,4
86600 0017	nD866 12L60 H60	40	6.320	158	•	60	2 x 58W	5,4

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

¹⁾ through-wiring or looping the cable is not permissible.

Fasteners

KE/KES VE10
KES P



KE/KES G2 VE10
KES G2 P



Accessories / Spare Parts

Article No.	Type	
Spare covers		
86601 9014	8652F	PC, frosted for 06L..
86601 9001	8654F	PC, frosted for 12L..
86601 9000	8654	PC, clear for 12L..
Fasteners		
90055 9004	KE/KES VE10	stainless steel, incl. 2 safety clips (packing unit 10 pcs.) see picture on the left, for nD866 12L.. until year of manufacture 2020
90055 9005	KES P	1 pair of safety clips stainless steel for nD866 12L.. until year of manufacture 2020
90055 9007	KE/KES G2 VE10	stainless steel, incl. 2 safety clips (packing unit 10 pcs.) see picture on the left, for nD866 12L.. from year of manufacture 2020 and for nD866 06L..
90055 9006	KES G2 P	1 pair of safety clips stainless steel for nD866 12L.. from year of manufacture 2020 and for nD866 06L..
Glands/breather		
90117 9006	2537 G	ex-protected plastic cable gland M25 x 1,5 with nut
90118 9006	2538 G	ex-protected plastic plug M25 x 1,5 with nut
90259 9000	KS25 EX	ex-breather M25 x 1,5
Mounting material		
86501 9003	HK 865 P	2 retaining clips for variable mounting distances
90001 0002	H8V P	2 suspensions eyes with bolts, stainless steel
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
90037 0004	RO84 112 A P	2 pipe clamps 1 1/2", stainless steel, with support
90038 0004	RO84 2 A P	2 pipe clamps 2", stainless steel, with support
26000 0004	W26 P	2 wall mounting angles
26000 0002	W26/30 P	2 wall mounting angles 30°
26000 0003	W26/45 P	2 wall mounting angles 45°

ExeLED 2 N

LED-Emergency Light Fitting for Ex-Zones 2/22 Series nD867...

Applications:

Hazardous locations of zones 2 (gas) and 22 (dust) for illumination of escape routes.

Design:

Housing: Glass fibre reinforced polyester resin. Version H with separate battery box at one small side of the housing.

Cover: Injected polycarbonate, frosted (F) or clear, silicone gasket.

Closure: Stainless steel clips (KE), two of them as safety clip (KES), to be opened with screwdriver only.

Reflector: Sheet Steel, painted, carrying the

LED-modules and all electrical components, clipped into the cover, suspendable.

Connection: 4 poles up to 2,5 mm².

Cable entries: 3 entries M25 x 1,5, (2 glands - one of them is plugged). Versions H with 2 x M25 x 1,5 at the front end of the light fitting.

Standard: Facing downwards or forwards.

Mechanical installation:

Direct ceiling mounting is possible. Rubber washers are included

Further mounting options see accessories / spare parts.

Technical Data:

LED: Line modules 5,000K, CRI > 80, lifetime L₈₀ > 100.000h, L₉₀ > 90.000h (06L..), L₉₀ > 75.000h (12L..) at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature

Incorporated NiCd battery, electronic charger, short circuit protected battery and reverse battery protection

Electronic deep discharge protection: acc. to EN 61347-2-7

Re-charging time: 24h, acc. to EN 60598-2-22

Automatic monitoring: of the emergency light fitting according to EN 62034, indication of the test results by 2-coloured LED (luminescence diode) at the luminaire

Mode of operation:

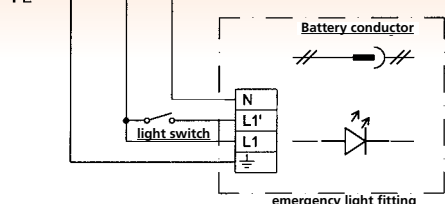
maintained operation = switching over to battery operation in case of mains failure, line modules will be operated with reduced luminous flux as emergency lighting.

stand-by operation = switching on in case of mains failure.

Options:

- Emergency lighting unit with DALI interface for dimming and central monitoring, compatible with LIMAS Line (DIMDI) Light Management System
- remote switch
- with through wiring system

L1
N
PE



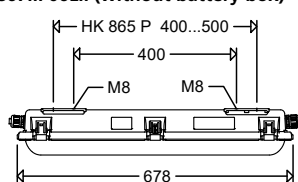
Starting:

Connect battery conductor.

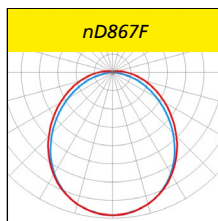
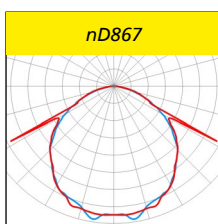
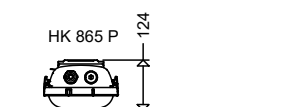
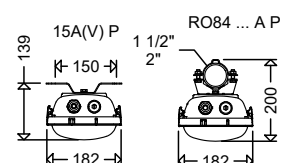
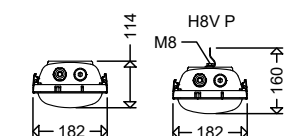
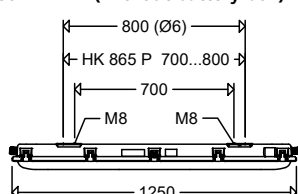
Out-of-operation: separate battery conductor.

Stand-by operation: Do not connect L1'.

nD867... 06L.. (without battery box)



nD867... 12L.. (without battery box)



Product highlights:

- safety in case of an emergency, instant light with maximum light output
- operation in maintained, switched maintained or stand-by mode possible
- multifunctional LED with coded indication of the functions, states and potential faults of the electronic device and the battery
- automatic weekly function test
- automatic annual duration test
- manual actuation of duration test is possible
- easy battery replacement due to connector
- Reflector and cover in sandwich design to protect the LED-Modules from mechanical or electrostatic damages due to accidental contact
- homogeneous illumination by using frosted diffusers (versions nD866F..) no individual light points visible, comfortable perception of light, brilliant glare limitation
- high colour rendering index CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- FastFix mounting, system for variable mounting distances and easy installation (retaining clips HK865 P) without opening the fitting
- ECG and reflector with LED-modules replaceable by qualified personnel on-site



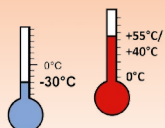
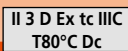
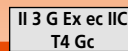
Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous flux [lm] (emergency)	Luminous efficacy [lm/W]	Cover frosted	Cover clear	1h operation time	3h operation time	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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nD867...



EC-Type Examination Certificate:

IBExU 16 ATEX B006

Other approvals:

IECx IBE 15.0015

Ignition protection: ec

Marking:

II 3 G Ex ec IIC T4 Gc (Zone 2)

II 3 D Ex tc IIIC T80°C Dc (Zone 22)

Rated voltage: 220-240V AC, 50/60Hz.

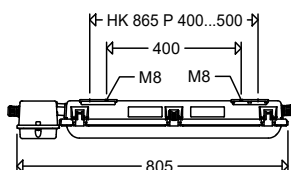
Permissible ambient temperature:

-30°C up to see table, reduced emergency light duration if operated below 0°C. For nD867 H nominal range acc. to EN60598-2-22, 0°C up to 45°C.

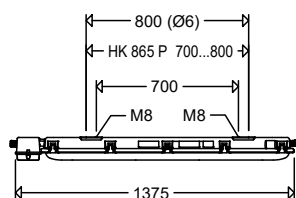
86700 0050	nD867F06L22/1/4	16	2.170	650	136	•	•	•	40	2 x 18W	4,2
86700 0052	nD867F06L42/1/4	29	4.360	750	150	•	•	•	40	2 x 36W	4,4
86700 0003	nD867F12L42/1/4	29	4.360	750	150	•	•	•	40	2 x 36W	6,3
86700 0004	nD867F12L60/1/4	41	6.020	750	147	•	•	•	40	2 x 58W	6,3
86700 0013	nD867 12L42/1/4	29	4.590	800	158	•	•	•	40	2 x 36W	6,3
86700 0014	nD867 12L60/1/4	41	6.320	800	155	•	•	•	40	2 x 58W	6,3
86700 0051	nD867F06L22/3/4	16	2.170	650	136	•	•	•	40	2 x 18W	4,2
86700 0053	nD867F06L42/3/4	29	4.360	750	150	•	•	•	40	2 x 36W	4,4
86700 0101	nD867F12L42/3/4	29	4.360	750	150	•	•	•	40	2 x 36W	6,3
86700 0102	nD867F12L60/3/4	41	6.020	750	147	•	•	•	40	2 x 58W	6,3
86700 0111	nD867 12L42/3/4	29	4.590	800	158	•	•	•	40	2 x 36W	6,3
86700 0112	nD867 12L60/3/4	41	6.320	800	155	•	•	•	40	2 x 58W	6,3

** versions L60 with through-wiring Tmax +35°C

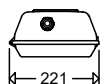
nD867 06L... H (with battery box)



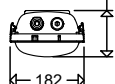
nD867 12L... H (with battery box)



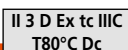
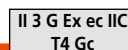
battery box



light fitting



nD867... H



for high temperatures up to +55°C

Design:

Same as standard version, but with separate battery box at one small side of the housing.

86700 0250	nD867F06L22/1/4 H	16	2.170	650	136	•	•	•	55	2 x 18W	5,2
86700 0252	nD867F06L42/1/4 H	29	4.360	750	150	•	•	•	55	2 x 36W	5,4
86700 0203	nD867F12L42/1/4 H	29	4.360	750	150	•	•	•	55	2 x 36W	7,3
86700 0204	nD867F12L60/1/4 H	41	6.020	750	147	•	•	•	55	2 x 58W	7,3
86700 0213	nD867 12L42/1/4 H	29	4.590	800	158	•	•	•	55	2 x 36W	7,3
86700 0214	nD867 12L60/1/4 H	41	6.320	800	155	•	•	•	55	2 x 58W	7,3
86700 0251	nD867F06L22/3/4 H	16	2.170	650	136	•	•	•	55	2 x 18W	5,2
86700 0253	nD867F06L42/3/4 H	29	4.360	750	150	•	•	•	55	2 x 36W	5,4
86700 0301	nD867F12L42/3/4 H	29	4.360	750	150	•	•	•	55	2 x 36W	7,3
86700 0302	nD867F12L60/3/4 H	41	6.020	750	147	•	•	•	55	2 x 58W	7,3
86700 0311	nD867 12L42/3/4 H	29	4.590	800	158	•	•	•	55	2 x 36W	7,3
86700 0312	nD867 12L60/3/4 H	41	6.320	800	155	•	•	•	55	2 x 58W	7,3

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

FastenersKE/KES VE10
KES PKE/KES G2 VE10
KES G2 P

Accessories / Spare Parts

Article No.	Type	
Spare batteries		
90222 9031	AKKU NiCd 6V 4Ah	Spare battery 4.0Ah (replacement for article no. 90222 9029)
90222 9030	AKKU NiCd 6V 1,6Ah	Spare battery 1.6Ah
90222 9021	AKKU 2627 4,0Ah	Spare battery 4.0Ah (Types ...H)
90222 9023	AKKU 8020 1,6Ah	Spare battery 1.6Ah (Types ...H)
Spare covers		
86601 9014	8652F	PC, frosted for 06L..
86601 9001	8654F	PC, frosted for 12L..
86601 9000	8654	PC, clear for 12L..
Fasteners		
90055 9004	KE/KES VE10	stainless steel, incl. 2 safety clips (packing unit 10 pcs.) see picture on the left, for nD867 12L.. until year of manufacture 2020
90055 9005	KES P	1 pair of safety clips stainless steel for nD867 12L.. until year of manufacture 2020
90055 9007	KE/KES G2 VE10	stainless steel, incl. 2 safety clips (packing unit 10 pcs.) see picture on the left, for nD867 12L.. from year of manufacture 2020 and for e nD867 06L..
90055 9006	KES G2 P	1 pair of safety clips stainless steel for nD867 12L.. from year of manufacture 2020 and for nD867 06L..
Glands/breather		
90117 9006	2537 G	ex-protected plastic cable gland M25 x 1,5 with nut
90118 9006	2538 G	ex-protected plastic plug M25 x 1,5 with nut
90259 9000	KS25 EX	ex-breather M25 x 1,5
Mounting material		
86501 9003	HK 865 P	2 retaining clips for variable mounting distances
90001 0002	H8V P	2 suspensions eyes with bolts, stainless steel
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
90037 0004	RO84 112 A P	2 pipe clamps 1 1/2", stainless steel, with support
90038 0004	RO84 2 A P	2 pipe clamps 2", stainless steel, with support
26000 0004	W26 P	2 wall mounting angles
26000 0002	W26/30 P	2 wall mounting angles 30°
26000 0003	W26/45 P	2 wall mounting angles 45°



Compact LED Emergency and Escape Sign Light Fitting for Ex-Zones 2/22 Series nD8611... LED

Applications:

Hazardous locations of zones 2 (gas) and 22 (dust) for illumination of escape routes and for identification of escape routes.

Design:

Housing: Diecast aluminium, natural finish, gear set located inside the housing, wired ready for connection.

Cover: Polycarbonate opalescent white, (W), foamed silicone gasket. (Pictograms –

if required – to be ordered separately, see accessories).

Connection terminal: 3 or 4 poles, clamping range max. 2,5mm².

Cable entries: 1 cable gland M20 x 1,5 on the front side.

Mounting: 2 outer fixing points.

Technical Data:

LED: Linear module 6.500K, CRI > 80, lifetime L₈₀ > 70.000h at max. ambient temperature

Versions with self-contained battery:

Built-in NiMH battery. A constant trickle charge to the battery ensures readiness of operation at all times.

Automatic monitoring the emergency light fitting acc. to EN 62034. Indication of the test results by 2-colour LED on the light fitting.

Electronic deep discharge protection acc. to EN 61347-2-7

Recharging time: 24 h, acc. to EN 60598-2-22

Modes of operation:

Stand-by operation: Emergency light switches on in case of mains failure

Maintained operation: Switching over to battery operation in case of mains failure

Options:

– same side in/out wiring (2 entries at one side M20 x 1,5)

– versions for higher ambient temperatures up to +60°C (without self-contained battery)

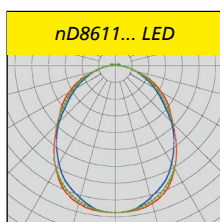
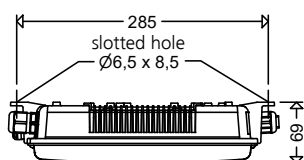
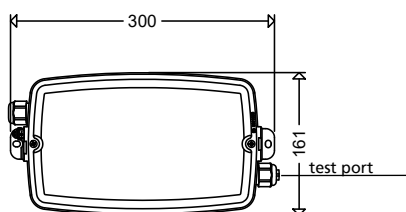


For series with self-contained battery:

– Emergency lighting unit with DALI interface for central monitoring, compatible with LIMAS Line (DI) Light Management System

For series in case of connection to a central power supply unit:

– with integrated LED supply- and monitoring module for monitoring individual light fittings connected to group- or central battery systems. We recommend Central Battery Systems from INOTEC.



Product highlights:

- safety in case of an emergency, instant light with maximum light output also at low temperatures
- stable luminous flux in emergency operation independent from the ambient temperatures
- outstanding visibility of the indication sign due to a superb and even illumination of the pictogram
- reduced battery capacity
- robust light fitting for rough environment
- perfect by strained field conditions
- homogeneous illumination by using opal diffusers, comfortable perception of light
- fast mounting through external mounting grounding clips

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous flux [lm] (emergency)	Luminous efficacy [lm/W]	1h operation time	3h operation time	Weight [kg] (without packing material)
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nD8611 L02/. W



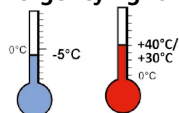
II 3 G Ex nR IIC T4 Gc

II 3 D Ex tc IIIC T80°C Dc

IP65



emergency light fitting with built-in battery



Ignition protection: nR

Explosion protection:

II 3 G Ex nR IIC T4 Gc Gc (Zone 2)

II 3 D Ex tc IIIC T80°C Dc (Zone 22)

Rated voltage: 220-240V AC, 50/60Hz

Ambient temperature:

-5°C bis +30°C (maintained operation)

-0°C bis +40°C (standby operation)

86111 0010	nD8611 L02/1 W	5	150	150	30	•	1,0
86111 0011	nD8611 L02/3 W	5	150	150	30	•	1,2

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous flux [lm] (emergency)	Luminous efficacy [lm/W]	1h operation time	3h operation time	Weight [kg] (without packing material)
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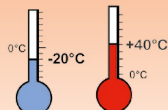
nD8611 L02 W



II 3 G Ex nR IIC
T4 Gc

II 3 D Ex tc IIIC
T80°C Dc

IP65



Ignition protection: nR

Rated voltage: 220-240V AC, 50/60Hz

Explosion protection:

Ambient temperature:

II 3 G Ex nR IIC T4 Gc Gc (Zone 2)

-20°C up to +40°C

II 3 D Ex tc IIIC T80°C Dc (Zone 22)

(further versions upon request).

86110 0010	nD8611 L02 W	4	150	38			0,8
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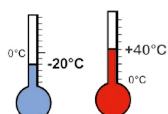
nD8611 L02 W ZB



II 3 G Ex nR IIC
T4 Gc

II 3 D Ex tc IIIC
T80°C Dc

IP65



Ignition protection: nR

Rated voltage: 220-240V AC/DC,

Explosion protection:

0 or 50/60Hz

II 3 G Ex nR IIC T4 Gc Gc (Zone 2)

Ambient temperature:

II 3 D Ex tc IIIC T80°C Dc (Zone 22)

-20°C up to +40°C

(further versions upon request).

86111 0013	nD8611 L02 W ZB	4	150	150	38		0,8
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Explosion protected
Light Fittings



Type nD8611/... with pictogram 220/110/35

Self-adhesive pictogram



220/110/33 .../34 .../35

For marking escape routes acc.to DIN EN ISO 7010 and ASR A1.3.

Viewing = 22m.

Accessories / Spare Parts

Article no.	Type	
Spare cover		
36004 9002	3611/02	PC, white opalescent
Self adhesive legends for series 3611 and 8611		
12112 0101	220/110/33	Emergency exit to the left
12112 0102	220/110/34	Emergency exit to the right
12112 0103	220/110/35	Emergency exit below
Cable entries		
90120 9008	2531 G	Ex-protected cable gland with nut
90122 9001	2533 G	Ex-protected cable gland with plug and with nut
Spare-batteries		
90222 9026	Akku 8620	Spare-battery 1h
90222 9027	Akku 8621	Spare-battery 3h

LED-Steep roof light fitting for Ex-Zone 2/22 Series nD822...

Applications:

Hazardous areas of Zones 2 (gas) and 22 (dust), e.g. cleanrooms, paint shops and spray booths.

Design:

Housing: Sheet steel, powder coated in light grey (RAL 7035), silicone foam gasket.

Glass cover: Impact resistant safety glass pane, frameless / hinged.

Central locking system: Operated by a 5mm allen key, internal hinges on the opposite side.

Reflector: Hinged; white painted sheet steel; detachable, carrying LED-modules and glare limitation modules.

Connection: 3 poles up to 2,5mm².

Cable entries: 3 entries M25 x 1,5, (2 glands - one of them is plugged)

Standard: Facing downwards or forwards.

Mechanical installation:

Mounting accessories see spare parts/ accessories.

Technical Data:

LED: Line modules appr. 5,000K, CRI > 80, lifetime L₈₀ > 100.000h, L₉₀ > 75.000h at 25°C ambient temperature, lifetime L₈₀ > 100.000h at max. ambient temperature

ECG: 220-240V AC/DC, 0 or 50/60Hz, overvoltage, overload and short circuit protection

Options:

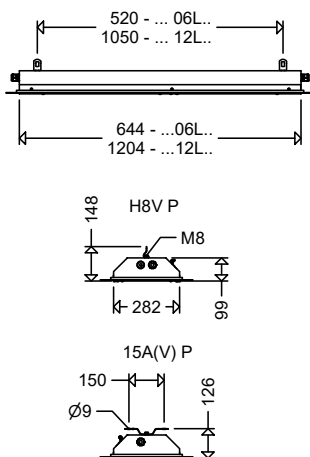
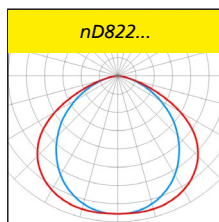
- for connection to group or central battery (light fittings of version ZB only) or emergency mains respectively
- with monitoring module for monitoring the individual light fitting
- Control gear with dimming function via DALI2-compatible interface, suitable for the LIMAS Line Light Management System (DIMD)

- housing made from stainless steel, painted
- prepared for 5-core cable looping system
- with through wiring system
- Installation in thermally insulated ceilings (acc. to EN60598)

STAINLESS STEEL
corrosion resistant

Note:

This light fitting is not suitable for application in areas with permanent high humidity in combination with only short periods of operation, such as sewage or stormwater retention tanks or water treatment plants.



Product highlights:

- extremely flat and robust design
- perfect protection of the LED from mechanical or electrostatic damages with at the same time homogeneous illumination with glare limitation modules, no individual light points visible, comfortable perception of light, excellent glare limitation
- high colour rendering index CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- comfortable central locking system with internal hinges
- separate, frame for recessed installation or a swivel arm mounting system can easily be installed at a later stage, (frame for recessed installation not suitable for stainless steel version!)
- ECG and reflector with LED-modules **replacable by qualified personnel on-site**
- Suitability for paint booths LABS-tested according to VDMA 24364-C2-L

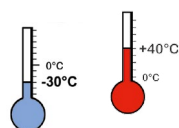
Auf
Open
Ouvrir
Close
Zu
Fermer

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)

Looping the cable on one side:

All light fittings of series nD822... have got 2 cable entries on one small side of the housing for cable looping instead of the through wiring system. (3-pole looping standard, 5-pole looping at additional cost)

nD822...



Ignition protection: ec

Marking:

II 3 G Ex ec IIC T4 Gc (Zone 2)

II 3 D Ex tc IIIC T80°C Dc (Zone 22)

Rated voltage: 220-240V AC/DC, 0 or 50/60Hz.

Permissible ambient temperature:

-30°C up to +40°C

82200 0001	nD822 06L22	15	2.100	140	40	2 x 18W	7,7
82200 0002	nD822 06L42	28	4.110	147	40	2 x 36W	7,9
82200 0003	nD822 06L60	40	5.600	140	40	2 x 58W	7,9
82200 0050	nD822 12L42	28	4.260	152	40	2 x 36W	13,6
82200 0051	nD822 12L60	40	5.900	148	40	2 x 58W	14,0
82200 0052	nD822 12L85	54	8.350	155	40	> 2 x 58W	14,0
82200 0053	nD822 12L120	79	11.470	145	40	>3 x 58W	14,0

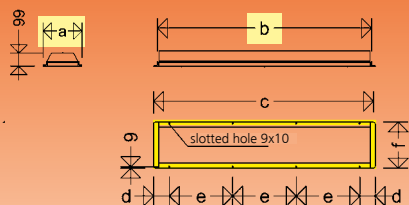
* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

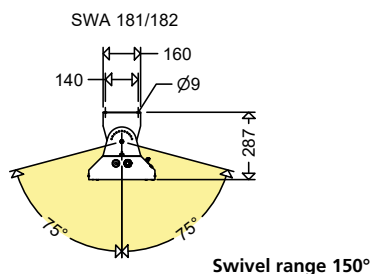
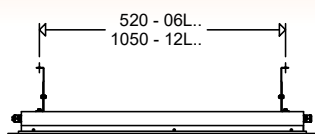
All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Installation dimensions



Type	a	b	c	d	e	f
EB 82. 06L	302	660	710	55	300	348
EB 82. 12L	302	1224	1270	125	340	348

Attention: When planning the opening for recess installation please allow additional clearance for the cable glands.



Frame for Recessed Installation

retrofit possible!

Light fittings of series nD822... can be equipped with a frame even at a later stage.

Mounting by means of M5 bolts to the long sides of the housing (see drawing).

Article No.	Type	
18091 0020	EB 82. 06L	frame for narrow housing, e821 06L, nD822 06L
18091 0021	EB 82. 12L	frame for narrow housing, e821 12L, nD822 12L

Swivel Arm Mounting System

retrofit possible!

Light fittings of series nD822... can be equipped with a swivel arm mounting system at any time.

The swivel arms are fixed to the suspen-

sion points at the upper side of the housing. Swivel range: $\pm 75^\circ$ (see dimensions in diagram).

Article No.	Type	
18092 0001	SWA 181/182	for all wattages consisting of: 2 swivel arms with bolts M8



Mounting material

Suspension brackets H8V P



Ceiling brackets 15A P



Wall/ceiling angles WD 45 P



Further accessories as well as carrier rail systems and through wiring systems are available.

Accessories / Spare Parts

Article No.	Type	
Spare glasses		
82101 9001	821 06L	spare glass for e821 06L, nD822 06L
82101 9002	821 12L	spare glass for e821 12L, nD822 12L
Cable entries/cable glands		
90117 9006	2537 G	ex-protected gland of size M25 x 1,5 with nut
90119 9001	2539 G	ex-protected gland of size M25 x 1,5 with nut and plug
90118 9006	2538 G	ex-protected plug of size M25 x 1,5 with nut
Mounting material		
90001 0002	H8V P	2 suspension eyes, stainless steel
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
26000 0005	WD 45 P	2 wall/ceiling angle, steel



ExDUEVO

LED High Bay Fittings for Ex-Zone 2/22

Series nD8301/nD8302...

Applications:

Hazardous locations, of Zones 2 (gas) and 22 (dust), in assembling- and production halls, warehouses, in industrial sectors, workshops, chemical factories etc.

Design:

Two versions are available: 1 (nD8301) or 2 (nD8302) LED segments.

Housing: Diecast aluminum, DB 702N (mica-iron paint).

LED-segment(s) with LED modules, optics (B- and TB-types) behind tempered safety glass (IK08).

ECG segment with integrated electronic control gear, prewired on terminals.

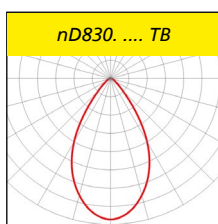
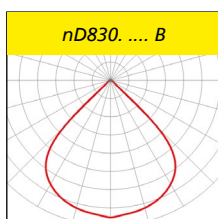
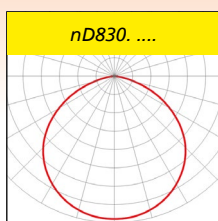
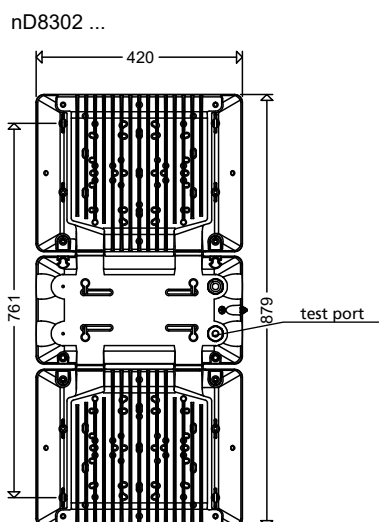
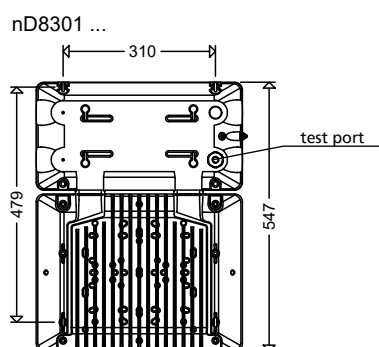
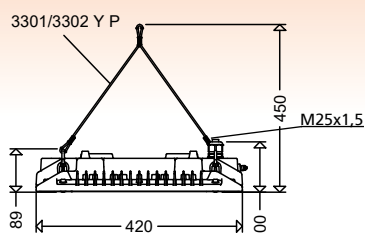
Light distribution: Without optic wide beam, with optic wide (B) or narrow-wide beam (TB).

Connection: 5 poles up to 2,5mm².

Entries: 1 gland M25 x 1,5.

Mounting material: 4 eyelets M6 or see accessories/spare parts.

General Purpose: Beaming downwards (0°).



Technical Data:

LED-module: 4,000K, CRI > 80, lifetime L₇₀ > 100,000h at ambient temperature ≤ 50° C or L70 > 90,000h at ambient temperature > 50° C, L80 > 100,000h at 25° C ambient temperature, L80 > 60,000h at max. ambient temperature

ECG: 220 - 240V, 50/60Hz. Surge voltage resistance 4kV, overload and short circuit protection, Digital dimming with DALI interface (DIMD) compatible with LIMAS Line.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): via 230V control input. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Further dimming levels possible.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

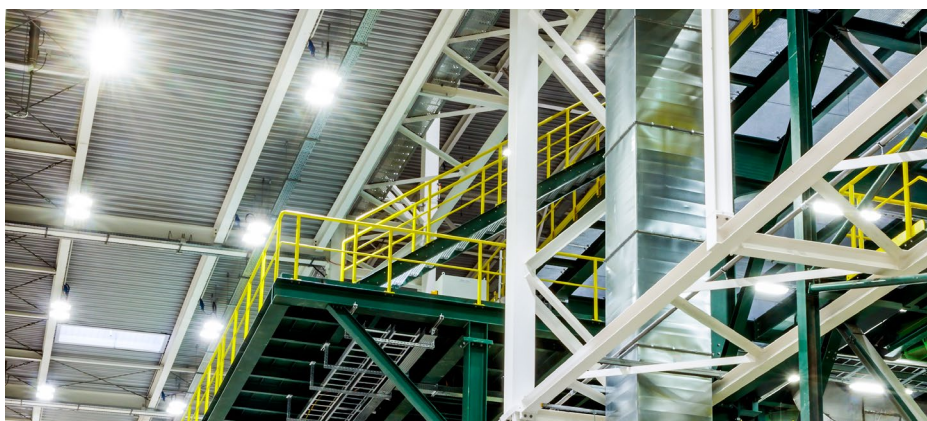
Ambient temperature: -20°C up to +40°C / +50°C / +60°C

Options:

- narrow beam version (T)
- Version with narrow oval optic (TO) for illumination of aisles in rack areas
- version with additional threads for wall mounting by means of swivel arm brackets (swivel range 0° - 45°), not retrofittable
- for connection to group or central battery systems (ZB) or emergency mains respectively
- cable looping on one side

Product highlights:

- high efficient by use of top-quality mid-power LEDs
- extremely high lifetime even at the maximum permissible ambient temperature
- optimized thermal management due to direct mounting of the LED modules to the housing and separate housings for ECG- and LED-modules, huge heat sink with excellent heat dissipation
- high-quality ECG with overload and short circuit protection
- DALI interface (standard) for dimmed operation, compatible with LIMAS Line (DIMD) Light Management System
- uniform illumination due to the „Multi-Layer Technology“ i.e. every individual LED illuminates the whole surface, the light curves of the individual LED are overlapping. No dark zones if any single LED would fail. The uniformity of the illumination is kept
- colour rendering index CRI > 80
- future proof by using standardized LED-modules (Zhaga)

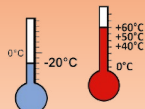


Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	T max [°C]	Wide beam	Narrow-wide beam	Substitute for *	Weight [kg] (without packing material)
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Ignition protection: nR

Marking:

II 3 G Ex nR IIC T4 Gc (Zone 2)

II 3 D Ex tc IIIC T100°C Dc (Zone 22)

Rated voltage: 220V - 240V, 50/60Hz

Permissible ambient temperature:

-20°C up to +40°C / +50°C / +60°C

nD8301/nD8302...



II 3 G Ex nR IIC
T4 Gc

II 3 D Ex tc IIIC
T100°C Dc

IP65



... for ambient temperatures up to +40°C

1 LED segment

83010 0001	nD8301 L110	67	10.800	161	40	•		8,9
83010 0002	nD8301 L160	96	15.000	156	40	•		8,9
83010 0003	nD8301 L210	135	20.200	150	40	•		8,9
83010 0004	nD8301 L110B	67	10.800	161	40	•		9,2
83010 0005	nD8301 L160B	96	15.000	156	40	•		9,2
83010 0006	nD8301 L210B	135	20.200	150	40	•		9,2
83010 0007	nD8301 L110TB	67	10.800	161	40		•	9,2
83010 0008	nD8301 L160TB	96	15.000	156	40		•	9,2
83010 0009	nD8301 L210TB	135	20.200	150	40		•	9,2

2 LED segments

83020 0002	nD8302 L320	192	30.000	156	40	•		14,5
83020 0003	nD8302 L420	270	40.400	150	40	•		14,5
83020 0005	nD8302 L320B	192	30.000	156	40	•		14,6
83020 0006	nD8302 L420B	270	40.400	150	40	•		14,6
83020 0008	nD8302 L320TB	192	30.000	156	40		•	14,6
83020 0009	nD8302 L420TB	270	40.400	150	40		•	14,6

... for ambient temperatures up to +50°C

1 LED segment

83010 0101	nD8301 L110 H50	67	10.800	161	50	•		8,9
83010 0102	nD8301 L160 H50	96	15.000	156	50	•		8,9
83010 0104	nD8301 L110B H50	67	10.800	161	50	•		9,2
83010 0105	nD8301 L160B H50	96	15.000	156	50	•		9,2
83010 0107	nD8301 L110TB H50	67	10.800	161	50		•	9,2
83010 0108	nD8301 L160TB H50	96	15.000	156	50		•	9,2

2 LED segments

83020 0101	nD8302 L220 H50	134	21.600	161	50	•		14,5
83020 0102	nD8302 L320 H50	192	30.000	156	50	•		14,5
83020 0104	nD8302 L220B H50	134	21.600	161	50	•		14,6
83020 0105	nD8302 L320B H50	192	30.000	156	50	•		14,6
83020 0107	nD8302 L220TB H50	134	21.600	161	50		•	14,6
83020 0108	nD8302 L320TB H50	192	30.000	156	50		•	14,6

... for ambient temperatures up to +60°C

1 LED segment

83010 0201	nD8301 L110 H60	67	10.800	161	60	•		8,9
83010 0202	nD8301 L160 H60	96	15.000	156	60	•		8,9
83010 0204	nD8301 L110B H60	67	10.800	161	60	•		9,2
83010 0207	nD8301 L110TB H60	67	10.800	161	60		•	9,2

2 LED segments

83020 0201	nD8302 L220 H60	134	21.600	161	60	•		14,5
83020 0202	nD8302 L320 H60	192	30.000	156	60	•		14,5
83020 0204	nD8302 L220B H60	134	21.600	161	60	•		14,6
83020 0207	nD8302 L220TB H60	134	21.600	161	60	•		14,6

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories / Spare Parts

Article no.	Type	
90117 9006	2537 G	ex-protected plastic cable gland M25x1,5 with nut
90119 9001	2539 G	ex-protected plastic cable gland M25x1,5 with nut and plug
33001 9004	3301/3302 Y P	1 pair of Y-ropes, (2-point-mounting)
33001 9002	3301/3302 D	1 pair of angle brackets for direct ceiling mounting



ExFOCO L LED-Floodlight/ plane surface floodlight for Ex-Zone 2/22 Series nD8700...

Applications:

Hazardous locations of Zones 2 (gas atmosphere) and 22 (dust atmosphere), indoor and outdoor areas, stockyards, e.g. construction sites, transport routes, pipe bridge, pedestrian areas etc.

Design:

Housing: Die-cast aluminium, 2-parts, powder coated DB 702 (mica-iron paint, grey).

Upper part: With LED- and optics-modules,

Lower part: With electronic ballast, glass cover, cable entry with cable relief, retractable.

Glass: Flat safety glass pane, resistant to

temperature changes, impact resistant IK10, silicone gasket.

Light distribution: With optics narrow-wide (TB), narrow (T) or asymmetrical beam (A), without optics wide beam.

Connection terminal: 3-pole terminal max. clamping range 2,5mm².

Cable entry: 1 gland M20 x 1.5.

Mounting: Mounting bracket, swivel range 180°, for wall- or ceiling mounting or for direct pole mounting in conjunction with pipe clamps ROB 60/76 (see accessories).

Standard Mounting: Facing downwards or horizontal.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%).

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

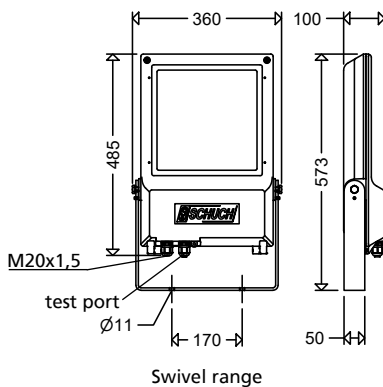
Ambient temperature: -30°C up to +40°C

Options:

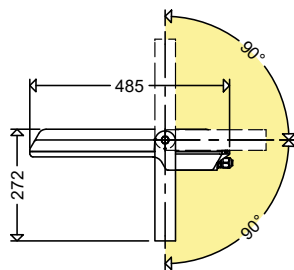
- asymmetrical wide beam (AB)
- asymmetrical extremely wide beam (ABX)

- for connection to group or central battery systems (ZB) or emergency mains respectively

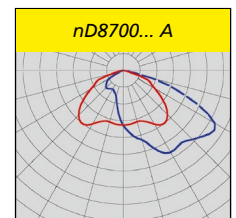
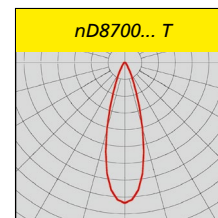
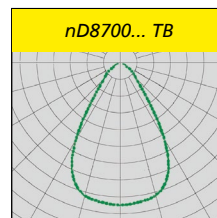
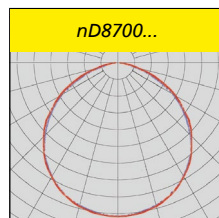
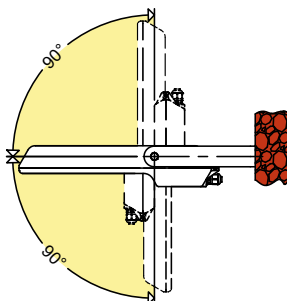
- for higher ambient temperatures up to +50°C



Swivel range



Standard Mounting



Product highlights:

- ECG with surge voltage resistance, reliable due to overload and short circuit protection
- optimized thermal management due to direct adaption of the LED-modules to the die-cast aluminium housing, large cooling surface, excellent heat dissipation
- optimal light distribution due to highly efficient optics
- homogeneous illumination due to the Multi-Layer-Technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.
- comfortable maintenance due to removable lower part of the housing, large opening allows easy access to the terminal box and the electrical components, ECG replaceable on-site
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled (Plane surface floodlight)
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W]	Luminous flux ca. [lm]	Luminous efficacy [lm/W]	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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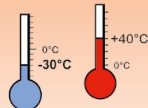
nD8700/ ...



II 3 G Ex nR IIC
T4 Gc

II 3 D Ex tc IIIC
T100°C Dc

IP66



Ignition protection: nR

Marking:

II 3 G Ex nR IIC T4 Gc

II 3 D Ex tc IIIC T100°C Dc

(Zone 2)

(Zone 22)

Rated voltage: 220V up to 240V AC,
50/60 Hz

Permissible ambient temperature:

-30°C up to +40°C

wide beam

87000 0007	nD8700 4803	106	14.700	139	40	9,6
87000 0001	nD8700 6403	140	19.400	139	40	9,6

narrow wide beam

87000 0008	nD8700 4803TB	106	14.700	139	40	9,6
87000 0002	nD8700 6403TB	140	19.400	139	40	9,6

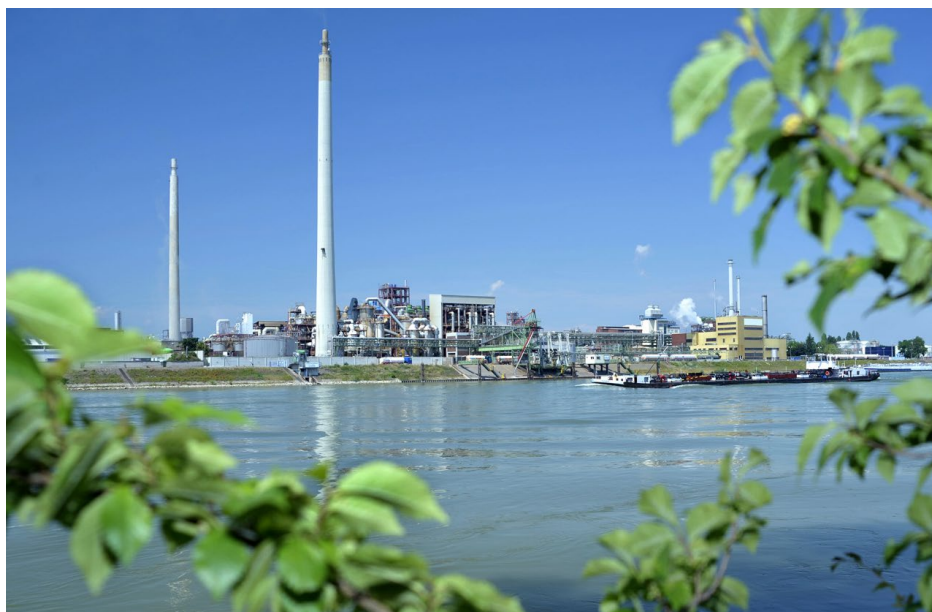
narrow beam

87000 0014	nD8700 4803T	106	14.700	139	40	9,6
87000 0013	nD8700 6403T	140	19.400	139	40	9,6

asymmetrical beam (plane surface floodlight)

87000 0009	nD8700 4803A	106	14.700	139	40	9,6
87000 0003	nD8700 6403A	140	19.400	139	40	9,6

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.



Accessories / Spare Parts

Article no.	Type	
Cable glands		
90120 9000	2531	ex-protected plastic cable gland M20 x 1,5
90122 9000	2533	ex-protected plastic cable gland M20 x 1,5 with plug
Mounting material		
90270 0006	ROB 60/76 G2	Pipe clamp fastening for direct pole mounting; galvanised steel



ExFOCO XL LED-Floodlight/ plane surface floodlight for Ex-Zone 2/22 Series nD8800...

Applications:

Hazardous locations of Zones 2 (gas) and 22 (dust), indoor and outdoor areas, stockyards, construction sites, transport routes, pipe bridge, pedestrian areas etc.

Design:

Housing: Die-cast aluminium, 2-parts, powder coated DB 702 (mica-iron paint, grey).

Upper part: With LED- and optics-modules

Lower part: With electronic ballast, glass cover, cable entry with cable relief, retractable.

Glass: Flat safety glass pane, resistant to temperature changes, impact resistant IK09, silicone gasket.

Connection terminal: 3-pole terminal, max. clamping range 2,5mm².

Cable entry: 1 gland M25 x 1.5.

Mounting: Mounting bracket, swivel range 180°, for wall- or ceiling mounting or for direct pole mounting in conjunction with pipe clamps

ROB 60/76 (see accessories).

Standard Mounting: Facing downwards or horizontal.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%).

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

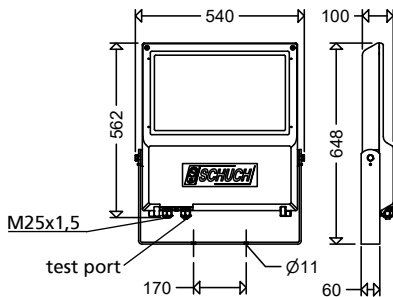
Ambient temperature: -30°C up to +40°C

Options:

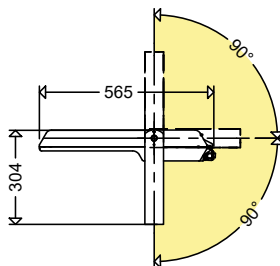
- asymmetrical wide beam (AB)
- asymmetrical extremely wide beam (ABX)

– for higher ambient temperatures up to +50°C

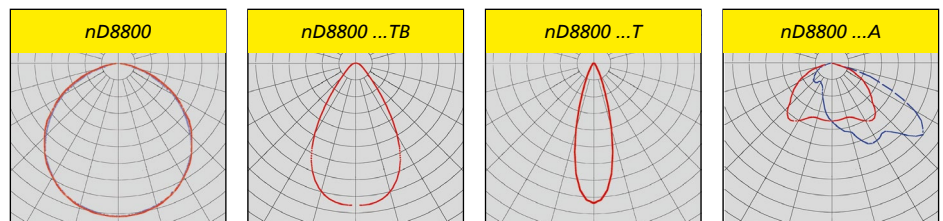
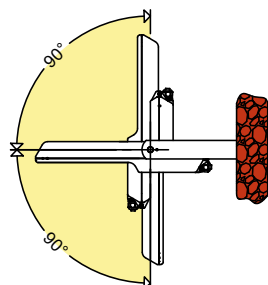
- for connection to group or central battery systems (ZB) or emergency mains respectively



Swivel range



Standard Mounting



Product highlights:

- ECG with surge voltage resistance, reliable due to overload and short circuit protection
- optimized thermal management due to direct adaption of the LED-modules to the die-cast aluminium housing, large cooling surface, excellent heat dissipation
- optimal light distribution due to highly efficient optics
- homogeneous illumination due to the Multi-Layer-Technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.
- comfortable maintenance due to removable lower part of the housing, large opening allows easy access to the terminal box and the electrical components, ECG replaceable on-site
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled (Plane surface floodlight)
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W]	Luminous flux ca. [lm]	Luminous efficacy [lm/W]	Ta max [°C]	Substitute for *	Weight [kg] (without packing material)
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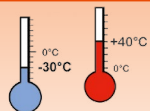
nD8800/ ...



II 3 G Ex nR IIC
T4 Gc

II 3 D Ex tc IIIC
T100°C Dc

IP66



Ignition protection: nR

Marking:

II 3 G Ex nR IIC T4 Gc

II 3 D Ex tc IIIC T100°C Dc

(Zone 2)

(Zone 22)

Rated voltage: 220V up to 240V AC,
50/60 Hz

Permissible ambient temperature:

-30°C up to +40°C

wide beam

88000 0001	nD8800 6403	140	19.900	142	40	15,9
88000 0007	nD8800 12803	280	38.300	137	40	17,0

narrow wide beam

88000 0002	nD8800 6403TB	140	19.900	142	40	15,9
88000 0008	nD8800 12802TB	198	28.410	143	40	17,0

narrow beam

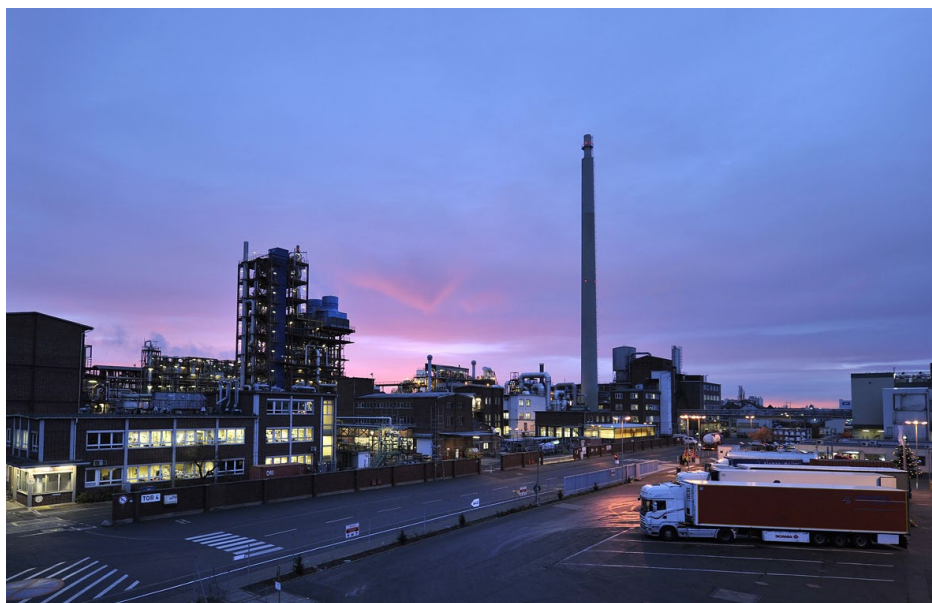
88000 0013	nD8800 6403T	140	19.900	142	40	15,9
88000 0014	nD8800 12802T	198	28.410	143	40	17,0

asymmetrical beam (plane surface floodlight)

88000 0003	nD8800 6403A	140	19.900	142	40	15,9
88000 0009	nD8800 12802A	198	28.410	143	40	17,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Explosion protected
Light Fittings



Accessories / Spare Parts

Article no.	Type	
Cable glands		
90117 9000	2537	ex-protected plastic cable gland M25 x 1,5
90119 9000	2539	ex-protected plastic cable gland M25 x 1,5 with plug
Mounting material		
90270 0006	ROB 60/76 G2	Pipe clamp fastening for direct pole mounting; galvanised steel



Aluminium Carrier Rails for Continuous Row Installation Series TRS 2000... and AL...

Application:

For rows of light fittings suspended from the ceiling, allowing an easy installation and assembly.

Design:

Aluminium profiled carrier rails (AL / TRS 2000)

Lengths: 2, 3 or 5 m. Additional covering strip (TRS A) for series TRS.

Mounting accessories:

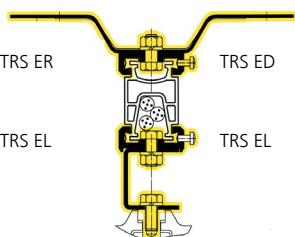
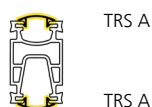
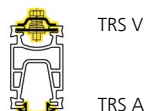
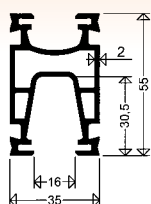
For each length of a light fitting only one suspension point is required.

Connection brackets (TRS V) - to be ordered separately - allow joining the individual rails up to any length wanted.

The carrier rails can either be mounted

directly to the ceiling by means of the ceiling brackets (183 A / TRS ED) or they can be suspended from the ceiling by means of the hook (183 H / TRS ER) in combination with the chain (KP 40) (max. distance of mounting rail elements 2.5m). Perlon pendulums are not suitable for this purpose.

2 or 3 devices (183 L / TRS EL) serve for mounting a light fitting to the rail. The suspension devices 183 A / TRS ED and 183 H / TRS ER as well as the devices 183 L / TRS EL are movable in the longitudinal direction of the rails.



TRS 2000...

aluminium carrier rails with high loading capacity

for series e840..., e864..., e865..., e821..., nD822...

Product highlights:

- Universal quick-action mounting system for explosion- and weather-proof light fittings
- easy to install (mount the suspension devices to the light fitting, then push the light fitting into the carrier rail profile)
- higher load capacity due to new profile design
- inserting the mains cable into the cable channel is possible
- a cover strip serves as a protection against dirt deposit

Article No.	Type	Product	Weight ca. [kg]
90260 0001	TRS 2000 2 M	Alu-rail 2 m long	3,03
90260 0002	TRS 2000 3 M	Alu-rail 3 m long	4,55
90260 0003	TRS 2000 5 M	Alu-rail 5 m long	7,58
90265 0005	TRS A 1	covering strip, 1 m long	0,04
90265 0006	TRS A 2	covering strip, 2 m long	0,07

Mounting Devices

Article No.	Type	Product
90265 0004	TRS V	stainless steel device (profile) for rail connection
90265 0008	TRS ED	stainless steel ceiling bracket for mounting the rail
90022 0001	KP 40	chain 1 m long with 2 eyelets for fastening and length compensation
90265 0007	TRS ER	stainless steel ring nut for chain
90265 0009	TRS EL	stainless steel mounting bracket

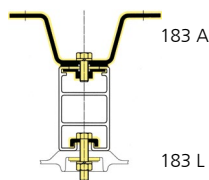
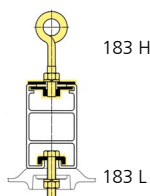
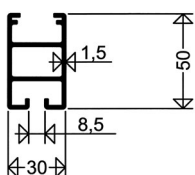
AL...

aluminium carrier rails for series nD866...

Article No.	Type	Product	Weight ca. [kg]
90005 0001	2 M AL	Alu-rail 2 m long	1,6
90005 0002	3 M AL	Alu-rail 3 m long	2,4
90005 0003	5 M AL	Alu-rail 5 m long	3,9

Mounting Devices

Article -No.	Type	Product
90265 0004	TRS V	stainless steel device for rail connection
90185 0001	183 A	stainless steel ceiling bracket for ceiling mounting of the carrier rail
90022 0001	KP 40	chain 1 m long with 2 eyelets for fastening and length compensation
90049 0001	183 H	stainless steel hook for chain pendulum
90050 0001	183 L	stainless steel mounting bracket



Through wiring Systems for Explosion-Protected Light Fittings

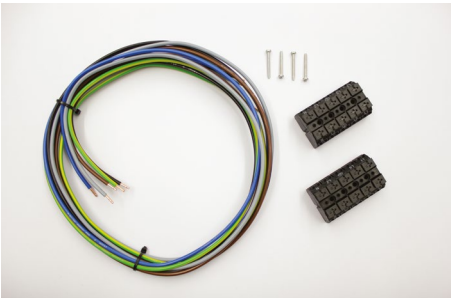
For all light fittings installed in a continuous row. Through wiring system with 2 multipole terminals which are fixed inside the light fitting.
(Since retrofitting the through wiring system on site is subject to special regulations in regard to hazardous areas, we do recommend a factory-made through-wiring system.)

Through wiring systems:
2.5mm² up to 16A
4.0mm² up to 20A
(depending on the permissible ambient temperature of the light fitting).

Note:

With the "variable cable entries" most of our explosion-protected fluorescent fittings are well suited for **looping the cable at one end** of the fitting. This allows a perfect adaptation to the local conditions and moreover in many cases this spares the classic through-wiring system.

Please contact us for details in regard to explosion-protected fittings with looping system



Factory-made through wiring system

Our explosion-protected light fittings of Zone 1/21 and Zone 2/22 with factory-made through wiring systems will be delivered with the standard through wiring system 5x2,5mm² PVC of 6x2,5mm² PVC (emergency fittings Zone1/21). Fittings with such standard through wiring do have separate part numbers (see price list).

Example: Type e840..

Article No.	Type	Through wiring system)
84005 0001	e840 12L42	without through wiring system)
84005 1001	e840 12L42 DV	with classical through wiring system 5 x 2.5mm ² PVC

Through wiring systems for other cable cross sections (e.g. 4mm²) or number of poles (e.g. 3 x 2,5 mm²) are available on request.

Through-wiring system for retrofit

Article No.	Type	
for ex-proof LED-light fittings zone 1/21		
11501 0020	DV/NS ZO1/21 LED e865 06L	5 x 2,5 mm ² PVC, für e865 06 ...
11501 0019	DV/NS ZO1/21 LED e865 12L, e840 12L	5 x 2,5mm ² PVC, for e840... and e865 12 ...
for ex-proof LED-light fittings zone 2/22		
11891 0015	DV/NS ZO2/22 LED nD866 06L	5 x 2,5 mm ² PVC, für nD866 06 ...
11891 0014	DV/NS ZO2/22 LED nD866 12L	5 x 2,5mm ² PVC, nD866 12 ...

Through wiring retrofit sets for other series or other cable cross sections are also available.



Explosion-Protected Wall Sockets System SolConeX Series 4216...

Applications:

Hazardous areas of zones 1, 21 and 2, 22

Design:

Housing: Made from impact resistant plastic material with lock-up switch.

System SolConeX

Cable entry:

1 cable gland M25 x 1,5 and
1 plug M25 x 1,5 (at bottom)

Type	Ident.-No.	Dimens./mm height/length	Width resp. Ø
4216/306	8570/11-306	232	105
4216/506	8570/11-506	248	115

DB are standardized by Deutsche Bahn AG

4216/...

or voltages up to 415 V



II 2 G Ex db eb
IIC T6 Gb

II 2 D Ex tb IIIC
T80°C Db

IP66



EC-Type Examination Certificate:

PTB 03 ATEX 1227

Ignition protection:

e (increased safety)

Marking:

II 2 G Ex db eb IIC T6 Gb

II 2 D Ex tb IIIC T80°C Db

Temperature class: T6

Permissible ambient temperature:

–30°C bis +55°C

Article No.	Type	Rated-current	Voltage	Poles	Conn. terminals	Weight ca. [kg]
41060 0006	4216/306	16A	200-250V	2P + PE	up to 2 x 6,0 mm ²	1,12
41060 0008	4216/506	16A	200-415V	3P + N + PE	up to 2 x 6,0 mm ²	1,45



Explosion-Protected Plugs System SolConeX Series 4210...

Applications:

Hazardous areas of zones 1, 21 and 2, 22.

Design:

Housing: Made from impact resistant plastic material. System SolConeX

Cable entry:

8 to 20 mm cable

Type	Ident.-No.	Dimens./mm height/length	Width resp. Ø
4210/306	8570/12-306	176	76
4210/506	8570/12-506	176	92

Covering cap for plug available upon request.

DB are standardized by Deutsche Bahn AG

4210/...

for voltages up to 415V



II 2 G Ex db eb
IIC T6 Gb

II 2 D Ex tb IIIC
T80°C Db

IP66



EC-Type Examination Certificate:

PTB 03 ATEX 1227

Ignition protection:

e (increased safety)

Marking:

II 2 G Ex db eb IIC T6 Gb

II 2 D Ex tb IIIC T80°C Db

Temperature class: T6

Permissible ambient temperature:

–30°C bis +55°C

Article No.	Type	Rated current	Voltage	Pole	Conn. terminals	Weight ca. [kg]
41050 0006	4210/306	16A	200-250V	2P + PE	up to 2 x 6,0 mm ²	0,38
41050 0008	4210/506	16A	200-415V	3P + N + PE	up to 2 x 6,0 mm ²	0,50



Explosion-Protected Installation Switches Series 8040...

Applications:

For switching lighting installations in hazardous areas of Zones 1, 21 and 2, 22. Pay attention to the permissible switching capacities.

Design:

Housing and cover: Made from impact resistant glass fibre reinforced polyester resin. Rotary handle fluorescent. 90° switching.

Connection terminals:

stranded wire: 1,5 ... 2,5mm².
solid wire: 1,5 ... 4,0mm²

Cable entry:

1 cable gland M25 x 1,5 and 2 plugs M25 x 1,5 are part of the delivery.
2nd cable gland upon request.
Mounting: By means of 2 screws.

Electrical Data

Rated Voltage 690V AC, 220V DC
Switching capacities

AC-1	16A	690V
AC-15	16A	415V
AC-3	8A	500V
AC-3	4A	690V
DC-1	10A	24V
DC-1	6A	60V
DC-1	10A	110V ¹⁾
DC-1	10A	220V ²⁾

Number of poles: 2-pole

1) 2 contacts connected in series
2) 3 contacts connected in series

8040/.

for voltages up to 690 V



II 2 G Ex de IIC
T6 Gb

II 2 D Ex tb IIIC
T80°C Db

IP65



EC-Type Examination Certificate:

PTB 01 ATEX 1105

Marking:

II 2 G Ex de IIC T6 Gb
II 2 D Ex tb IIIC T80° Db

Ignition protection: e (increased safety)

Rated voltage: 690V AC, 220V DC

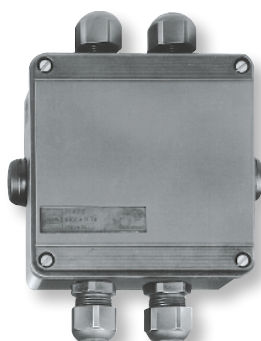
Rated current: max. 16A

Permissible ambient temperature:
-20°C bis +40°C.

Article No.	Type	Switch version	Ident no.	Weight ca. [kg]
80300 0003	8040/A	ON-OFF 2 poles	8040/11-V30-33-B	0,60
80300 0004	8040/W	Pole changing switch	8040/11-V30-35-B	0,62

Explosion protected
Light Fittings

Explosion-Protected Junction Box Series 8118...



Applications:

For transmission and distribution of electrical energy in hazardous areas of Zones 1 and 2.

Design:

Housing: Made from impact resistant glass fibre reinforced polyester resin.

Connection terminals: 5 hood-type terminals (1 of them serves for earth connection) for a max. conductor size of

2x6.0 mm².

Cable entry:

8118/4:

4 cable glands M25 x 1,5 +2 plugs M25 x 1,5.

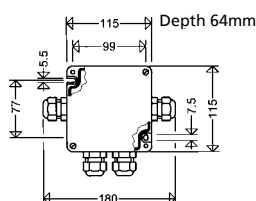
8118/6:

6 cable glands M25 x 1,5

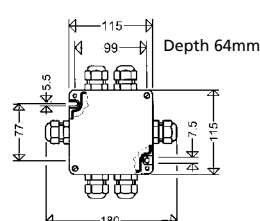
Mounting system:

See dimensional drawings.

8118/4



8118/6



8118/.

voltages up to 750V



II 2 G Ex e IIC
T5/T6 Gb

II 2 D Ex tb IIIC
T80°C/T95°C Db

IP66



EC-Type Examination Certificate:

PTB 99 ATEX 3103

Marking:

II 2 G Ex e IIC T5/T6 Gb
II 2 D Ex tb IIIC T80°C/T95°C Db

Ignition protection: e (increased safety)

Rated voltage: 750V AC

Permissible ambient temperature:

T6: -40°C bis +40°C
T5: -40°C bis +55°C.

Rated current: max. 35A

Article No.	Type	Cable gland	Weight ca. [kg]
81180 0001	8118/4	4 x M25 x 1,5	0,57
81180 0002	8118/6	6 x M25 x 1,5	0,61



Waterproof Light Fittings

Quality knows no compromises

Waterproof light fittings have a wide scope of applications. Thus, a lighting system shall meet various requirements, from simple storage rooms to industrial applications with extreme ambient conditions and temperatures, mechanical and chemical impacts.

Requirements are as various as solutions which SCHUCH offers being an experienced specialist in this field. As a result, a very wide range of light fittings has been designed for special applications at workshops and in production areas.

Numerous excellent references in all industry branches witness SCHUCH's innovative strength, competence and reliability. Our customers appreciate the proverbial high quality of SCHUCH products for over 125 years.

Our customers can also rely on it with regard to all light fittings with the new LED technology. Quality knows no compromises.

FROM WATERPROOF PORCELAIN LIGHT FITTINGS TO WATERPROOF LED LIGHT FITTINGS

1895

Foundation of the company. Production of the first waterproof porcelain lamp holder for incandescent lamps. Production of first porcelain and hand light fittings with protective glass for damp locations, namely for breweries, leather and chemical industries.

1934

SCHUCH launches the first gas-tight pendant lamp ("completely hermetically sealed"). Further "special lights" and "special mountings" such as barrel illuminators, barn and cellar switches follow.

1949

Production of first waterproof light fittings without diffusers for fluorescent tubes.

1952/53

Production of industry's first waterproof light fitting made of fiberglass-reinforced polyester. Launching own production of "PREPREG" and in-house production of fiberglass-reinforced polyester housings.

1972

Start of production of legendary waterproof of light fittings series 161/162, which, in sub-sequent years, developed to the waterproof light fitting for severe industrial applications.

1975

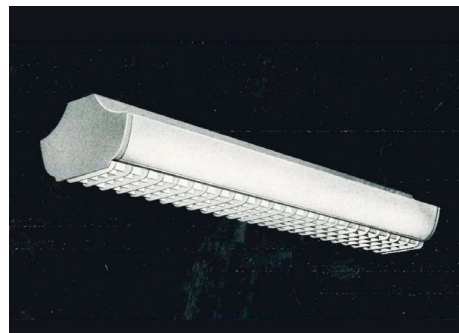
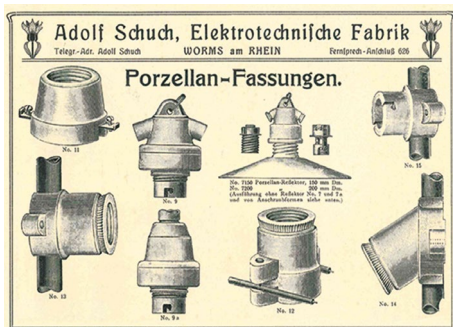
Foamed polyurethane gasket is used for the first time instead of widespread conventional rubber seals.

1995

The range of waterproof light fittings extends by including special industry solutions for severe applications in the industry and at workshops. In the following years, an extensive program developed out of this, which impressively documents the competence and know-how of SCHUCH.

2007

Industry's first waterproof light fitting for unprotected outdoor installation. A unique selling point that shows the high quality of SCHUCH lights.



LED TECHNOLOGY

2007

The first waterproof LED light fittings (low power compact light fittings) are added to in the product range.

2014

With light fitting series 161 VARIO SCHUCH introduces industry's first waterproof light fitting with adjustable luminous flux. One light fitting can replace standard versions up to 2 x 58W.

2015/16

First LED light fitting series for a wide temperature range of -40°C to +65 °C, designed for applications in climatic zones with extreme temperature conditions and fluctuations.

2019/20

SCHUH intensely investigates the influence of harmful gases on LED lights. This has resulted in the RESISTANT range of light fittings with the designations

ER = increased protection

HR = high protection

XR = extremely tight.

2020/2021

Introduction of the first 'Gas Tight' light fitting PRIMO XR for applications in harmful gas environment.

2022

A legend turns 50! With the PROXIMA 161PX... SCHUCH presents the next generation of the legendary 161... moisture-proof luminaire series.



Dustproof/Waterproof Light Fittings

Product	Series	Page
Light fittings with diffuser		
PROXIMA	161PX...	62-63
• variable setting of the luminous flux	... VARIO	63a-63c
Series 161/162...	161/162...	64-71
• with DALI interface	... DIMD	65
• dimmable via „Corridor Mode“	... DIMC	65
... dimmable + automatic switch-off function	... DIMC-Z30	66
• with integrated motion detector	... SENS	66
... with automatic switch-off function	... SENS-Z30	66
• with narrow-wide optics	... TB	67
• for high ambient temperatures	... H50	67
• for low ambient temperatures	... T40	67
• for high ambient temperatures and wide temperature ranges	... T40/H...	67
• for unprotected outdoor installation	... AUS	68
• for food industry areas	... IFS / LM	68-69
• for use in hazardous areas	... ER / HR	70
• FastFix/FastConnect (mounting system)	... FF/FC	71
• variable setting of the luminous flux	... VARIO	72-74
Series 144...	144...	75-76
<i>Extremely robust Central Locking System</i>		
• for unprotected outdoor installation	... AUS	76
Series 163/164... Generation 2	163/164... G2	77-81
• with DALI interface	... DIMD	78
• dimmable via „Corridor Mode“	... DIMC	78
... dimmable + automatic switch-off function	... DIMC-Z30	79
• with integrated motion detector	... SENS	79
... with automatic switch-off function	... SENS-Z30	80
• for high ambient temperatures	... H50	80
• for low ambient temperatures	... T40	80
• for food industry areas	... IFS	80
Series 161/162... RLED OV	161/162...	82
163/164... RLED OV	163/164...	
<i>for LED-Retrofit lamps</i>		
LUXANO 2	167... G2	83-86
• with DALI interface	... DIMD	83
• dimmable via „Corridor Mode“	... DIMC	84
... dimmable + automatic switch-off function	... DIMC-Z30	84
• for unprotected outdoor installation	... AUS	85
• for food industry areas	... IFS	85
• for agriculture and animal husbandry	... LW	85
... with DALI interface	... ER DIMD	86
Oval-shaped light fitting		
Series 3610...	3610...	87
Compact LED fittings		
Series 3611...	3611...	88
Series 164KL... Generation 2	164KL... G2	89
Series 130/131...	130/131...	90
Tubular light fittings		
PRIMO XR	107...	91-92
• with DALI interface	... DIMD	91
• for agriculture and animal husbandry	... LW	92
... with DALI interface	... LW DIMD	92
TUBEO	110...	93-94
• for high ambient temperatures	... H50	94
Sheet steel light fittings		
Series 190...	190...	95
Series 185...	185...	96-98
for sand/glass blasting areas and cabins	185... SSK	97
Vandal proof light fitting		
Series 140...	140...	99-100
Carrier rails		
	TRS 2000	101
	AL	101
	TRS 1000	102
Through wirings		
	DV	103

NEW

PROXIMA

Dustproof/Waterproof LED Light Fitting with Diffuser Serie 161PX...

Applications:

In humid, wet and dusty indoor areas of industrial and agricultural premises, for workshops and car parks, cold stores, low temperature stores, cooling chambers and walkable low temperature cabins in hotels, climate chambers, roofed outdoor areas, hard to reach areas with high downtime and maintenance costs etc. (In case of aggressive atmosphere please consult us)

Design:

Housing: Glass fibre reinforced polyester resin, foamed silicone gasket. .

Diffuser: Injection-molded acrylic glass, frosted for glare limitation.

Closure: Three-part plastic safety clips (KKS) to ensure protection against accidental contact.

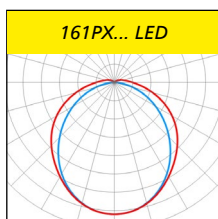
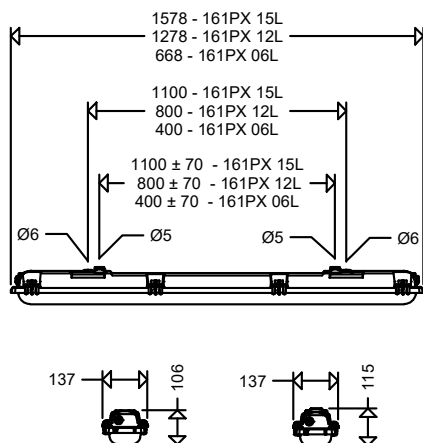
Reflector: Aluminium, painted, can be suspended or removed and carries the electrical components.

Connection: 3-pole

Cable entries: 3 plugs M20, loop in-out possible without further modification.

Mounting: 2 stainless steel retaining clips, 2 brackets for chain suspension, holes pre-pressed for direct fixing, sealing and pressure disks included in scope of deliver.

A legend turns 50!
161 ... becomes 161 PX
PROXIMA – the next generation



Technical data:

LED: Linear modules 4,000K, CRI > 80, lifetime $L_{90} > 50.000h$ at 25°C ambient temperature, lifetime $L_{80} > 70.000h$ at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short-circuit protection

Ambient temperature: -20°C (-40°C for types ...T40) up to ..°C see product table

Options:

- 3.000K, 5.000K, 6 500K
- high colour rendering index $R_a > 90$ (light colour 940)
- signalization with **coloured LED**
- **amber-colored LEDs** (light colour 518) e. g. for insect-friendly lighting in outdoor areas etc.
- Lightmanagementsystem **LIMAS Air**
- emergency light for connection to central power supply (**ZB**)
- emergency light with self-contained battery (**MA**)
- emergency light with self-contained battery with DALI emergency unit for central monitoring via LIMAS Line PRO (**MA-Z**)
- protection class II (SKII)
- vibration-resistant (**RF**)
- **Fast Connect (FC)** quick connector
- stainless steel clips (**KE**)
- through wiring up to 7x2.5 mm
- cable entries M25x1.5 mm²

Product highlights:

Now we have made the legendary 161 series even better and set a new standard:

161 PX PROXIMA - The next generation

- high impact strength housing, wall thickness 1.8 mm throughout
- diffuser with very high mechanical stability, wall thickness 2.0 mm throughout
- one enclosure width for all versions
- safety clips to ensure protection against contact
- FastFix quick mounting system with retaining clips made of stainless steel
- flexible mounting with movable retaining clips
- front-side in/out wiring (3-pole) possible as standard due to 2 entries on one side
- variable cable entry possible through additional entries on the top of the enclosure at the front or in the centre, centring holes available
- homogeneous illumination by using frosted diffusers
- highest efficiency due to use of top-quality components
- high colour rendering CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- with ∇ -sign, suitable for rooms with increased fire risk
- highest flexibility due to almost unlimited modification possibilities
- sustainable, all components replaceable on site
- future proof by using standardized LED-modules (Zhaga)

Standard cable entries for looping the mains cable on one side (loop in/loop out):

We deliver the light fittings with 2 cable entries on one small side. This feature allows an optimal adjustment to all local conditions and it will consequently save the typical quite expensive through wiring system. (Surcharge for 5-pole version).



Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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161PX...



16130 0001	161PX 06L12	1	10	1.380	138	40	1 x 18W	1,7
16130 0002	161PX 12L22	1	15	2.380	159	40	1 x 36W	2,8
16130 0003	161PX 15L34	1	21	3.430	163	40	1 x 58W	3,4
16130 0004	161PX 06L20	1	16	2.360	148	40	2 x 18W	1,7
16130 0005	161PX 12L42	1	27	4.220	156	40	2 x 36W	2,8
16130 0006	161PX 15L60	1	39	6.130	157	40	2 x 58W	3,4
16130 0007	161PX 12L60	1	39	5.900	151	40	2 x 58W	2,8
16130 0008	161PX 15L75	1	49	7.410	151	40	> 2 x 58W	3,4
16130 0009	161PX 12L120	2	78	11.800	151	35	2 x 80 bzw. 3 x 58W	3,1
16130 0010	161PX 15L150	2	97	14.820	153	35	4 x 58W	3,7



Dustproof/Waterproof
Light Fittings

161PX... DIMD



dimable via DALI interface

Design:

Same as standard version, but with DALI2-ECG and 2 additional clamping points, marked with DA, the polarity does not matter. Dimming Dimming level 1 -100%. Compatible with LIMAS Line Light Management System.

Note:

The conducting wires to the control input must be mains voltage stable and can be integrated in the connection cable.

16130 0011	161PX 06L12 DIMD	1	10	1.380	138	40	1 x 18W	1,7
16130 0012	161PX 12L22 DIMD	1	15	2.380	159	40	1 x 36W	2,8
16130 0013	161PX 15L34 DIMD	1	21	3.430	163	40	1 x 58W	3,4
16130 0014	161PX 06L20 DIMD	1	16	2.360	148	40	2 x 18W	1,7
16130 0015	161PX 12L42 DIMD	1	27	4.220	156	40	2 x 36W	2,8
16130 0016	161PX 15L60 DIMD	1	39	6.130	157	40	2 x 58W	3,4
16130 0017	161PX 12L60 DIMD	1	39	5.900	151	40	2 x 58W	2,8
16130 0018	161PX 15L75 DIMD	1	49	7.410	151	40	> 2 x 58W	3,4
16130 0019	161PX 12L120 DIMD	2	78	11.800	151	35	2 x 80 bzw. 3 x 58W	3,1
16130 0020	161PX 15L150 DIMD	2	97	14.820	153	35	4 x 58W	3,7

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
-------------	------	-----------------	-----------------------	--------------------	--------------------------	-------------------------------	----------------------	--------------------------------------

161PX... DIMC



dimable via „Corridor Mode“

Applications:

Areas where light fittings are controlled via motion detector or door contact, e.g. storage areas, shelf aisles. Areas with high energy-saving potential at times without presence of persons, e.g. car parks, warehouses, aisles in rack areas etc.

Design:

Same as standard version, but with dimmable ECG and additional clamping point, marked with L'.

Note:

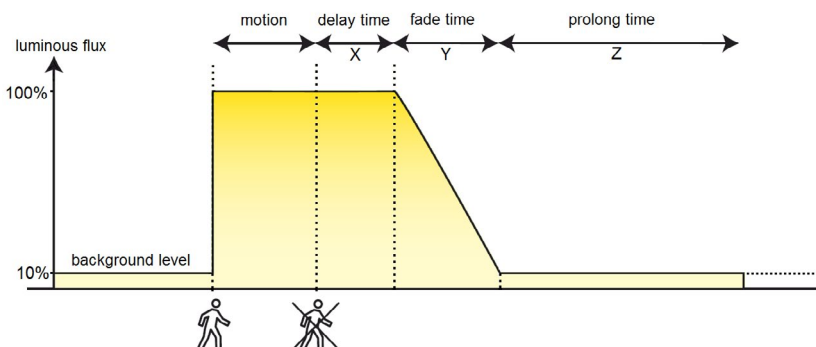
Such light fitting can be controlled by a light fitting of type 161PX... SENS.

Technical data:

The corridor function allows easy power reduction at a fixed value by means of an ordinary 230V control voltage.

Default settings:

- The Corridor Mode must be enabled during the installation of the light fittings. (s. mounting Instructions)
- 100% luminous flux as long as the control phase is active.
- Holding time of 100% luminous flux after switching off the control phase = 0 seconds. By setting the switch-off delay of the motion detector the customer can select an individual holding time
- Dimming ramp 30 seconds
- 10% luminous flux when no movement is detected (reduced operation).
- Automatic cutoff deactivated (light fitting never switches off and provides a background illumination of 10%, but can be switched off by user at any time).



Note:

Since the switching capabilities of LED modules and control devices are limited, dimming without switching of the light fitting completely will result in a much longer life of the light fitting.

16130 0022	161PX 12L22 DIMC	1	15	2.380	159	40	1 x 36W	2,8
16130 0023	161PX 15L34 DIMC	1	21	3.430	163	40	1 x 58W	3,4
16130 0025	161PX 12L42 DIMC	1	27	4.220	156	40	2 x 36W	2,8
16130 0026	161PX 15L60 DIMC	1	39	6.130	157	40	2 x 58W	3,4
16130 0027	161PX 12L60 DIMC	1	39	5.900	151	40	2 x 58W	2,8
16130 0028	161PX 15L75 DIMC	1	49	7.410	151	40	> 2 x 58W	3,4
16130 0029	161PX 12L120 DIMC	2	78	11.800	151	35	2 x 80 bzw. 3 x 58W	3,1
16130 0030	161PX 15L150 DIMC	2	97	14.820	153	35	4 x 58W	3,7

161PX... DIMC-Z30



dimable via „Corridor Mode“ and automatic switch-off function

Design:

As DIMC version but with automatic switch-off after 30 minutes.

Note:

The light fittings can be controlled with a 161PX... SENS-Z30 type.

Default settings different from DIMC types:

- the Corridor Mode is activated at the factory
- automatic cutoff activated (10% background illumination for 30 minutes, then the light fitting is switched off [0%]).

16130 0032	161PX 12L22 DIMC-Z30	1	15	2.380	159	40	1 x 36W	2,8
16130 0033	161PX 15L34 DIMC-Z30	1	21	3.430	163	40	1 x 58W	3,4
16130 0035	161PX 12L42 DIMC-Z30	1	27	4.220	156	40	2 x 36W	2,8
16130 0036	161PX 15L60 DIMC-Z30	1	39	6.130	157	40	2 x 58W	3,4
16130 0037	161PX 12L60 DIMC-Z30	1	39	5.900	151	40	2 x 58W	2,8
16130 0038	161PX 15L75 DIMC-Z30	1	49	7.410	151	40	> 2 x 58W	3,4
16130 0039	161PX 12L120 DIMC-Z30	2	78	11.800	151	35	2 x 80 bzw. 3 x 58W	3,1
16130 0040	161PX 15L150 DIMC-Z30	2	97	14.820	153	35	4 x 58W	3,7

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max [°C]	Substitute for ca. *	Weight [kg] without packing material
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161PX... SENS



DIMC version with integrated motion detector

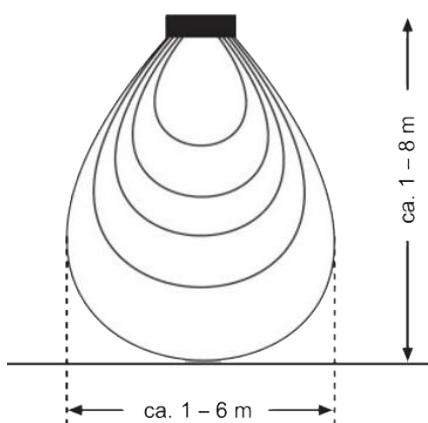
Applications:

Areas with high energy-saving potential in times without presence of persons, e.g. car parks, warehouses, aisles in rack areas etc.

Design:

Same as standard version, but with dimmable ECG, integrated motion detector and additional clamping point, marked with 'L'. This light fitting (Master) controls all fittings of type 161PX... DIMC (Slaves), which are connected to the same circuit.

Detection range of sensor



Technical data:

Detection range of sensor: Adjustable from 1 m - 6 m (depending on the environment); Default: Maximum
 – Objects (partition walls made from steel, concrete beams, etc.) which absorb or reflect the radar waves affect the detection range of the sensor. This must be checked and taken into account in the planning
 – In general, the detection of radial movements (towards the HF sensor) is more reliable than the detection of tangential movements.

– Tangential movements in a circular path are partially not detected.

– Detection range max. 4m at light point heights of about 2.30m

– Detection range max. 6m at light point heights up to max. 8m.

Delay time: Adjustable from 10 sec to 30 min; with Infrared remote control to 60 min; Default: 5 min

Daylight control: Adjustable from 2 Lux; Default: Maximum

Ambient temperature: -20 ° C up to see article table

Factory settings:

- Dimming ramp 30 seconds

- 10% luminous flux when no movement is detected (reduced operation).

- Automatic cutoff deactivated (light fitting never switches off and provides a background illumination of 10%, but can be switched off by user at any time).

Parameter setting:

– Potentiometer on the HF sensor

– Infrared remote control (optional)

16130 0042	161PX 12L22 SENS	1	15	2.380	159	40	1 x 36W	2,9
16130 0043	161PX 15L34 SENS	1	21	3.430	163	40	1 x 58W	3,5
16130 0045	161PX 12L42 SENS	1	27	4.220	156	40	2 x 36W	2,9
16130 0046	161PX 15L60 SENS	1	39	6.130	157	40	2 x 58W	3,5
16130 0047	161PX 12L60 SENS	1	39	5.900	151	40	2 x 58W	2,9
16130 0048	161PX 15L75 SENS	1	49	7.410	151	40	> 2 x 58W	3,5
16130 0049	161PX 12L120 SENS	2	78	11.800	151	35	2 x 80 bzw. 3 x 58W	3,2
16130 0050	161PX 15L150 SENS	2	97	14.820	153	35	4 x 58W	3,8

161PX... SENS-Z30



DIMC version with integrated motion detector

Design:

As SENS version but with automatic switch-off after 30 minutes.

Default settings different from SENS types:

- the Corridor Mode is activated at the factory

- automatic cutoff activated (10% background illumination for 30 minutes, then the light fitting is switched off [0%]).

16130 0052	161PX 12L22 SENS-Z30	1	15	2.380	159	40	1 x 36W	2,9
16130 0053	161PX 15L34 SENS-Z30	1	21	3.430	163	40	1 x 58W	3,5
16130 0055	161PX 12L42 SENS-Z30	1	27	4.220	156	40	2 x 36W	2,9
16130 0056	161PX 15L60 SENS-Z30	1	39	6.130	157	40	2 x 58W	3,5
16130 0057	161PX 12L60 SENS-Z30	1	39	5.900	151	40	2 x 58W	2,9
16130 0058	161PX 15L75 SENS-Z30	1	49	7.410	151	40	> 2 x 58W	3,5
16130 0059	161PX 12L120 SENS-Z30	2	78	11.800	151	35	2 x 80 bzw. 3 x 58W	3,2
16130 0060	161PX 15L150 SENS-Z30	2	97	14.820	153	35	4 x 58W	3,8

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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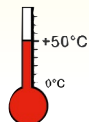
161PX... H50



for high ambient temperatures up to +50°C

Applications:

Power plants, steel plants, machine-oriented areas, areas with high process waste heat, areas close to the ceiling with accumulating heat etc.



16134 0001	161PX 06L12 H50	1	10	1.380	138	50	1 x 18W	1,7
16134 0002	161PX 12L22 H50	1	15	2.380	159	50	1 x 36W	2,8
16134 0003	161PX 15L34 H50	1	21	3.430	163	50	1 x 58W	3,4
16134 0004	161PX 06L20 H50	1	16	2.360	148	50	2 x 18W	1,7
16134 0005	161PX 12L42 H50	1	27	4.220	156	50	2 x 36W	2,8
16134 0006	161PX 15L60 H50	1	39	6.130	157	50	2 x 58W	3,4

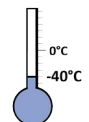
161PX... T40



for ambient temperatures down to -40°C

Applications:

Cooling chambers, frozen food stock etc.



16134 0012	161PX 12L22 T40	1	15	2.380	159	40	1 x 36W	2,8
16134 0013	161PX 15L34 T40	1	21	3.430	163	40	1 x 58W	3,4
16134 0015	161PX 12L42 T40	1	27	4.220	156	40	2 x 36W	2,8
16134 0016	161PX 15L60 T40	1	39	6.130	157	40	2 x 58W	3,4

161PX... T40 / H...



for wide temperature ranges from -40°C up to +60°C/70°C

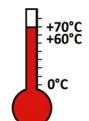
Applications:

Climatic chambers, material container, test benches in the automotive industry, regions with extreme temperature fluctuations etc.

Design:

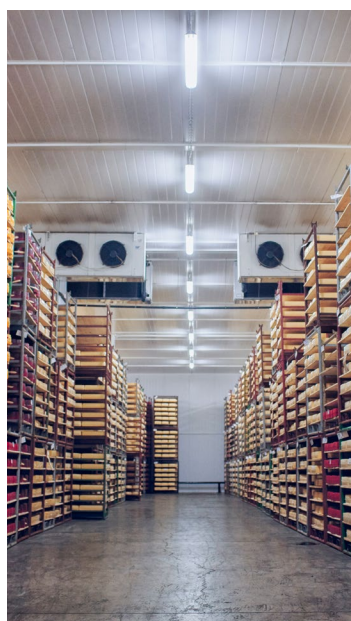
As standard version, but:

Diffuser: Injection-molded polycarbonate, frosted for glare limitation.



16134 0022	161PX 12L22 T40 H70	1	15	2.380	159	70	1 x 36W	2,8
16134 0023	161PX 15L34 T40 H70	1	21	3.430	163	70	1 x 58W	3,4
16134 0025	161PX 12L42 T40 H70	1	27	4.220	156	70	2 x 36W	2,8
16134 0026	161PX 15L60 T40 H60	1	39	6.130	157	60	2 x 58W	3,4

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.



Notes:

The light fitting is **not suitable** for use in extremely exposed locations with high mechanical stress (wind load) or infrequent or occasional use (e.g. maintenance or inspection lighting).

For use in extremely exposed locations with high mechanical loads (wind load), we recommend our series 144 ... AUS or 107 ... G2 (PRIMO XR).

For infrequent or occasional use, we recommend our series 107 ... G2 (PRIMO XR) or the installation of a weather protection cover over the luminaire.

When mounting the light fittings on bracket poles or tubular beams/pipes always use original SCHUCH pipe clamps with support (see accessories).

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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161PX... AUS



for application in unprotected outdoor areas

Applications:

In protected and unprotected outdoor areas and industrial plants, mounted to walls, ceilings, catwalks and steel structures, pipe brackets, grating, under canopies, bus stops, train stations, subways, construction sites, etc.

Design:

As type 161PX..., but:

Diffuser: UV proof

Pressure compensation element: M20

Entries: 2 glands M20 at one small side, pressure compensation element M20 at the other small side, 1 screw plug M20.

Mounting:

Ceiling and horizontal wall mount or mounting to outreaches, poles, steel structures, catwalks, etc. by means of pipe clamps. For vertical mounting please consult us.

Advantages of the AUS design:

- glass fibre reinforced polyester housing, durable resistant against UV-radiation and chemical components.
- our injection-molded PMMA-covers are extremely UV-resistant and robust (wall thickness 2.0mm)
- gasket are UV-, ozone-, weather-, chemically resistant and non-aging
- pressure compensation element provides controlled venting and thus protects against condensation
- the fitting can be installed in canopied as well as in entirely open outdoor areas



16131 0001	161PX 06L12 AUS	1	10	1.380	138	40	1 x 18W	1,7
16131 0002	161PX 12L22 AUS	1	15	2.380	159	40	1 x 36W	2,8
16131 0003	161PX 15L34 AUS	1	21	3.430	163	40	1 x 58W	3,4
16131 0004	161PX 06L20 AUS	1	16	2.360	148	40	2 x 18W	1,7
16131 0005	161PX 12L42 AUS	1	27	4.220	156	40	2 x 36W	2,8
16131 0006	161PX 15L60 AUS	1	39	6.130	157	40	2 x 58W	3,4
16131 0007	161PX 12L60 AUS	1	39	5.900	151	40	2 x 58W	2,8
16131 0008	161PX 15L75 AUS	1	49	7.410	151	40	> 2 x 58W	3,4
16131 0009	161PX 12L120 AUS	2	78	11.800	151	35	2 x 80 bzw. 3 x 58W	3,1
16131 0010	161PX 15L150 AUS	2	97	14.820	153	35	4 x 58W	3,7

Notes:

The light fittings in Version IFS are not suitable for cleaning with cleaning agents or disinfectants as well as the cleaning with water-jet units.



161PX... IFS



for application in food industry areas

Applications:

Food industry or food processing factories, suppliers to the food industry who are falling in the International Featured Standard Food, BRC, HACCP or who are subject to comparably strict requirements.

Design:

Same as type 161PX... but:

Diffuser: cover Polycarbonate, frosted.

Closure clips: Stainless steel (KE), incl. 2 safety clips (KES) to ensure protection against contact.

16132 0001	161PX 06L12 IFS	1	10	1.380	138	40	1 x 18W	1,7
16132 0002	161PX 12L22 IFS	1	15	2.300	153	40	1 x 36W	2,8
16132 0003	161PX 15L34 IFS	1	21	3.360	160	40	1 x 58W	3,4
16132 0004	161PX 06L20 IFS	1	16	2.230	139	40	2 x 18W	1,7
16132 0005	161PX 12L42 IFS	1	27	4.100	152	40	2 x 36W	2,8
16132 0006	161PX 15L60 IFS	1	39	6.030	155	40	2 x 58W	3,4
16132 0007	161PX 12L60 IFS	1	39	5.740	147	40	2 x 58W	2,8
16132 0008	161PX 15L75 IFS	1	49	7.300	149	40	> 2 x 58W	3,4
16132 0009	161PX 12L120 IFS	2	78	11.480	147	35	2 x 80 bzw. 3 x 58W	3,1
16132 0010	161PX 15L150 IFS	2	97	14.600	151	35	4 x 58W	3,7

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

IFS/BRC/VDMA/HACCP

SCHUCH Light Fittings designed for food and beverage industry applications are in accordance with IFS/BRC/VDMA standards. They can be operated without restrictions in operations that must fulfill the HACCP Concept.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max [°C]	Substitute for ca. *	Weight [kg] without packing material
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161PX... LM



for application in food areas

Applications:

Food industry or food processing factories especially in risky areas of the food production or processing, suppliers to the food industry who are falling in the International Featured Standard Food, BRC or HACCP standards or who are subject to comparably strict requirements (e.g. production of food packaging).

Design:

Same as type 161PX... but:

Diffuser: Shatterproof, high chemical resistance, elements for glare limitation mounted to the reflector.

Closure clips: Stainless steel (KE), incl. 2 safety clips (KES) to ensure protection against contact.



Note:

The colour rendering index Ra does not incorporate the remaining part (R9) in the light spectrum. The standard light colour 840 has only a minor R9 value. For meat processing factories, we recommend the use of our light fittings with light colour 940 (special version), which emits a bigger amount of red light.

Advantages of the LM version:

- shatterproof diffuser with very high impact resistance (16Nm!) even at a high continuous operating temperature
- resistant to grease and aggressive cleaning agents, disinfectants and solvents (we recommend the respective cleaning agents and disinfectants to be tested on their resistance. Resistance index on request.)

IFS/BRC/VDMA/HACCP

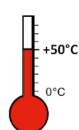
SCHUCH Light Fittings designed for food and beverage industry applications are in accordance with IFS/BRC/VDMA standards. They can be operated without restrictions in operations that must fulfill the HACCP Concept.

16132 0021	161PX 06L12 LM	1	10	1.380	138	40	1 x 18W	1,7
16132 0022	161PX 12L22 LM	1	15	2.380	159	40	1 x 36W	2,8
16132 0023	161PX 15L34 LM	1	21	3.430	163	40	1 x 58W	3,4
16132 0024	161PX 06L20 LM	1	16	2.360	148	40	2 x 18W	1,7
16132 0025	161PX 12L42 LM	1	27	4.220	156	40	2 x 36W	2,8
16132 0026	161PX 15L60 LM	1	39	6.130	157	40	2 x 58W	3,4
16132 0027	161PX 12L60 LM	1	39	5.900	151	40	2 x 58W	2,8
16132 0028	161PX 15L75 LM	1	49	7.410	151	40	> 2 x 58W	3,4
16132 0029	161PX 12L120 LM	2	78	11.800	151	35	2 x 80 bzw. 3 x 58W	3,1
16132 0030	161PX 15L150 LM	2	97	14.820	153	35	4 x 58W	3,7

161PX... LM H50



for high ambient temperatures up to +50°C

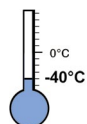


16132 0041	161PX 06L12 LM H50	1	10	1.380	138	50	1 x 18W	1,7
16132 0042	161PX 12L22 LM H50	1	15	2.380	159	50	1 x 36W	2,8
16132 0043	161PX 15L34 LM H50	1	21	3.430	163	50	1 x 58W	3,4
16132 0044	161PX 06L20 LM H50	1	16	2.360	148	50	2 x 18W	1,7
16132 0045	161PX 12L42 LM H50	1	27	4.220	156	50	2 x 36W	2,8
16132 0046	161PX 15L60 LM H50	1	39	6.130	157	50	2 x 58W	3,4

161PX... LM T40



for ambient temperatures down to -40°C



16132 0052	161PX 12L22 LM T40	1	15	2.380	159	40	1 x 36W	2,8
16132 0053	161PX 15L34 LM T40	1	21	3.430	163	40	1 x 58W	3,4
16132 0055	161PX 12L42 LM T40	1	27	4.220	156	40	2 x 36W	2,8
16132 0056	161PX 15L60 LM T40	1	39	6.130	157	40	2 x 58W	3,4

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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161PX... ER / HR (RESISTANT)



for use in hazardous areas

Note:

See notes in the technical appendix, chapter 4.1.



Applications:

Areas in trade, trade and industry with corrosive atmospheres or craft gases and vapors that can damage the LED up to and including total failure.
E.g. chemical industry, galvanizing plants, electroplating plants, foundries, tire production and storage, paper mills, sewage treatment plants, waste incineration plants etc. Advice on request.

Options:

- stainless steel clips (KE)
- for higher ambient temperatures up to +50°C
- with through wiring system

Design:

Like the standard version, but with modifications for increased (ER) or high (HR) protection against corrosive atmospheres or harmful gases.

16133 0001	161PX 06L12 ER	1	10	1.380	138	40	1 x 18W	1,7
16133 0002	161PX 12L22 ER	1	15	2.380	159	40	1 x 36W	2,8
16133 0003	161PX 15L34 ER	1	21	3.430	163	40	1 x 58W	3,4
16133 0004	161PX 06L20 ER	1	16	2.480	155	40	2 x 18W	1,7
16133 0005	161PX 12L42 ER	1	27	4.430	164	40	2 x 36W	2,8
16133 0006	161PX 15L60 ER	1	39	6.440	165	40	2 x 58W	3,4
16133 0007	161PX 12L60 ER	1	39	6.200	159	40	2 x 58W	2,8
16133 0008	161PX 15L75 ER	1	49	7.780	159	40	> 2 x 58W	3,4
16133 0009	161PX 12L120 ER	2	78	12.390	159	35	2 x 80 bzw. 3 x 58W	3,1
16133 0010	161PX 15L150 ER	2	97	15.560	160	35	4 x 58W	3,7
16133 0011	161PX 06L12 HR	1	10	1.380	138	40	1 x 18W	2,0
16133 0012	161PX 12L22 HR	1	15	2.380	159	40	1 x 36W	3,1
16133 0013	161PX 15L34 HR	1	21	3.430	163	40	1 x 58W	3,7
16133 0014	161PX 06L20 HR	1	16	2.480	155	40	2 x 18W	2,0
16133 0015	161PX 12L42 HR	1	27	4.430	164	40	2 x 36W	3,1
16133 0016	161PX 15L60 HR	1	39	6.440	165	40	2 x 58W	3,7
16133 0017	161PX 12L60 HR	1	39	6.200	159	40	2 x 58W	3,1
16133 0018	161PX 15L75 HR	1	49	7.780	159	40	> 2 x 58W	3,7
16133 0019	161PX 12L120 HR	2	78	12.390	159	35	2 x 80 bzw. 3 x 58W	3,8
16133 0020	161PX 15L150 HR	2	97	15.560	160	35	4 x 58W	4,3

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories / Spare Parts

Article no.	Type		Article no.	Type	
spare glasses, PMMA frosted			spare glasses, PC frosted		
16111 9040	161PX 06		16111 9043	161PX 06 PC	
16111 9041	161PX 12		16111 9044	161PX 12 PC	
16111 9042	161PX 15		16111 9045	161PX 15 PC	
spare glasses LM-version					
16111 9046	161PX 06 LM				
16111 9047	161PX 12 LM				
16111 9048	161PX 15 LM				
Fasteners					
90053 9009	KKS FR VE10	plastic safety clips (packing unit 10 pcs.)			
90055 9007	KE/KES G2 VE10	stainless steel clips, incl. 2 safety clips (packing unit 10 pcs.)			
90053 9004	KKS P	1 pair of safety clips (for LED version), plastic			
90055 9006	KES G2 P	1 pair of safety clips (for LED version), stainless steel			
Cable entries/pressure compensation elements					
90063 9000	2511	blanking plug M20			
25610 9000	2561	plastic cable gland M20 x 1,5			
25600 9000	2560	plastic cable gland M25 x 1,5			
90259 9002	DAE20	pressure compensation element M20			
90259 9003	DAE 20/25	adapter gland M20 -> M25 with pressure compensation			
Pipe clamps					
90094 0005	183 RO 112 A P SD	2 pcs., 1 1/2" stainless steel, with support			
90094 0006	183 RO 2 A P SD	2 pcs., 2" stainless steel, with support			
Consider mounting distances when installing the light fittings by pipe clamps to pole outreaches or any brackets.					
Angle brackets, aluminium					
90045 9001	HW 30 P	pair of angle brackets 30°			
90045 9002	HW 45 P	pair of angle brackets 45°			
90045 9004	HW 60 P	pair of angle brackets 60°			
90045 9003	HW 90 P	pair of angle brackets 90°			

NEW

Dustproof/Waterproof LED Light Fitting with Diffuser with variable setting of the luminous flux Series 161PX... VARIO

Applications:

Factories in which, for reasons of maximum standardisation and economic storage, only one type of damp-proof luminaire is to be used, which can be used for a wide variety of lighting tasks due to its variably adjustable luminous flux.

Design:

Housing: Glass fibre reinforced polyester resin, foamed silicone gasket.

Diffuser: Injection-molded acrylic glass, frosted for glare limitation.

Closure: Three-part plastic safety clips (KKS) to ensure protection against accidental contact.

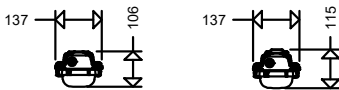
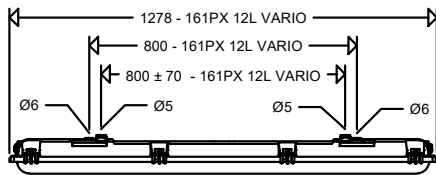
Reflector: Aluminium, painted, can be suspended or removed and carries the electrical components.

DIP switch for setting the luminous flux of the luminaire.

Connection: 3-pole

Cable entries: 3 plugs M20, loop in-out possible without further modification.

Mounting: 2 stainless steel retaining clips, 2 brackets for chain suspension, holes pre-pressed for direct fixing, sealing and pressure disks included in scope of deliver.

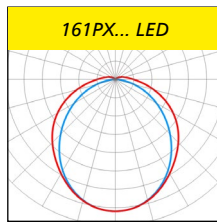


DIP switch for setting the luminous flux of the luminaire



Standard cable entries for looping the mains cable on one side (loop in/loop out):

We deliver the light fittings with 2 cable entries on one small side. This feature allows an optimal adjustment to all local conditions and it will consequently save the typical quite expensive through wiring system. (Surcharge for 5-pole version).



Technical data:

LED: Linear modules 4,000K, CRI > 80, lifetime $L_{90} > 50.000h$ at 25°C ambient temperature, lifetime $L_{80} > 70.000h$ at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short-circuit protection

Ambient temperature: -20°C up to +35/40/45°C (see type table)

Options:

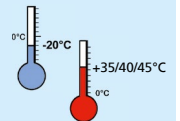
– 6.500K

– with through wiring system

– PC-diffuser frosted (PC)

Product highlights of the VARIO version:

- universally usable due to variable setting of the luminous flux, depending on the requirement (replaces fluorescent lamps from 1x18 up to 2x58W)
- simple and quick adjustment on-site without tools
- can be changed at any time (e.g. change of use of the premises with new requirements in regard to the level of illumination)
- for temperatures from -20°C up to +35/40/45°C (depending on setting)
- economical storage due to standardisation (only one light fitting instead of multiple versions)



General product highlights of the 161PX... series:

- high impact strength housing, wall thickness 1.8 mm throughout
- diffuser with very high mechanical stability, wall thickness 2.0 mm throughout
- one enclosure width for all versions
- safety clips to ensure protection against contact
- FastFix quick mounting system with retaining clips made of stainless steel
- flexible mounting with movable retaining clips
- front-side in/out wiring (3-pole) possible as standard due to 2 entries on one side
- variable cable entry possible through additional entries on the top of the enclosure at the front or in the centre, centring holes available
- homogeneous illumination by using frosted diffusers
- highest efficiency due to use of top-quality components
- high colour rendering CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- with V-sign, suitable for rooms with increased fire risk
- highest flexibility due to almost unlimited modification possibilities
- sustainable, all components replaceable on site
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Amb. temp. max. [°C]	Substitute for ca. *	(without packing material)
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161PX... VARIO



The luminous flux is variably adjustable to almost every value between 1.590lm and 5.900lm. Power consumption and

admissible ambient temperature will change depending on the setting of the luminous flux.

16130 0090	161PX 12L VARIO	11	1.590	145	45	1 x 18W	2,8
		15	2.380	159	40	1 x 36W	
		22	3.400 ²⁾	155	40	1 x 58W	
		27	4.220	156	40	2 x 36W	
		39	5.900	151	35	2 x 58W	

Notes:

The light fitting is not to be used in areas with high mechanical stress (wind) or seldom usage (i.e. maintenance and inspection only).

When mounting the light fittings on bracket poles or tubular beams/pipes always use original SCHUCH pipe clamps with support (see accessories).

161PX... VARIO AUS



for application in unprotected outdoor areas

Applications:

In protected and unprotected outdoor areas and industrial plants, mounted to walls, ceilings, catwalks and steel structures, pipe brackets, grating, under canopies, bus stops, train stations, subways, construction sites, etc.

Design:

Same as type 161PX 12L VARIO, but:

Diffuser: UV proof

Pressure compensation element: M20

Entries: 2 glands M20 at one small side, pressure compensation element M20 at the other small side, 1 screw plug M20.

Mounting:

Ceiling and horizontal wall mount or mounting to out-reaches, poles, steel structures, catwalks, etc. by means of pipe clamps.

16131 0090	161PX 12L VARIO AUS	11	1.590	145	45	1 x 18W	2,8
		15	2.380	159	40	1 x 36W	
		22	3.400 ²⁾	155	40	1 x 58W	
		27	4.220	156	40	2 x 36W	
		39	5.900	151	35	2 x 58W	

1) Examples of possible settings

2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Advantages of the AUS design:

- glass fibre reinforced polyester housing, durable resistant against UV-radiation and chemical components.
- our injection-molded PMMA-covers are extremely UV-resistant and robust (wall thickness 2.0mm)
- gasket are UV-, ozone-, weather-, chemically resistant and non-aging
- pressure compensation element provides controlled venting and thus protects against condensation
- the fitting can be installed in canopied as well as in entirely open outdoor areas



Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Amb. temp. max. [°C]	Substitute for ca. *	(without packing material)
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161PX... VARIO LM



for application in food industry areas

Applications:

Food industry or food processing factories especially in risky areas of the food production or processing, suppliers to the food industry who are falling in the International Featured Standard Food, BRC or HACCP standards or who are subject to comparably strict requirements (e.g. production of food packaging).

Design:

Same as type 161PX 12... VARIO but:

Diffuser: Shatterproof, high chemical resistance, cover for glare limitation fixed to reflector.

Closure clips: Stainless steel (KE), incl. 2 safety clips (KES) to ensure protection against contact.

16132 0090	161PX 12L VARIO LM	11	1.590	145	45	1 x 18W	2,8
		15	2.380	159	40	1 x 36W	
		22	3.400 ²⁾	155	40	1 x 58W	
		27	4.220	156	40	2 x 36W	
		39	5.900	151	35	2 x 58W	

1) Examples of possible settings

2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Advantages of the LM version:

- shatterproof diffuser with very high impact resistance (16Nm!) even at a high continuous operating temperature
- resistant to grease and aggressive cleaning agents, disinfectants and solvents (we recommend the respective cleaning agents and disinfectants to be tested on their resistance. Resistance index on request.)

IFS/BRC/VDMA/HACCP

SCHUCH Light Fittings designed for food and beverage industry applications are in accordance with IFS/BRC/VDMA standards. They can be operated without restrictions in operations that must fulfill the HACCP Concept.



Dustproof/Waterproof
Light Fittings

Accessories / Spare Parts

Article No.	Type	
Spare diffuser		
16111 9041	161PX 12	PMMA, frosted
16111 9044	161PX 12 PC	PC, frosted
16111 9047	161PX 12 LM	LM, clear

Additional accessories see series 161PX...



Dustproof/Waterproof LED Light Fitting with Diffuser Series 161/162.. L..

Applications:

In humid, wet and dusty indoor areas of industrial and agricultural premises, for workshops and car parks, cold stores, low temperature stores, cooling chambers and walkable low temperature cabins in hotels, climate chambers, roofed outdoor areas, hard to reach areas with high downtime and maintenance costs when replacing the lamps. etc. (In case of aggressive atmosphere please consult us)

Design:

Housing: Glass fibre reinforced polyester resin, foamed silicone gasket.

Diffuser: Injection-molded acrylic glass,

frosted for glare limitation.

Closure: Three-part captive plastic clips (KK), incl. 2 safety clips (KKS) to ensure protection against contact.

Reflector: Aluminium, painted, can be suspended or removed and carries the electrical components.

Connection: 3-pole or 5-pole terminal (DIMD).

Cable entries: 2 plugs M20.

Mounting: Closed knock-outs for direct ceiling mounting (to be opened at site).

Sealing and pressure disks inside each fitting.

Technical data:

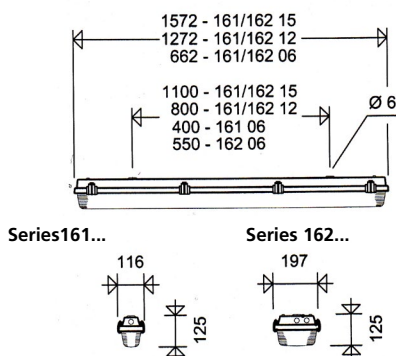
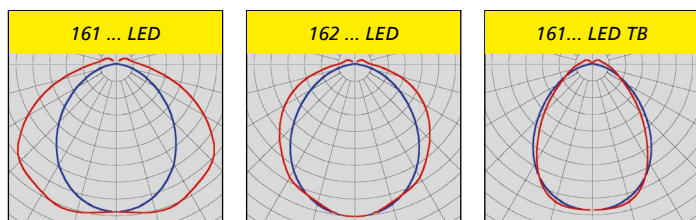
LED: Linear modules 4,000K, CRI > 80, lifetime L₉₀ > 50.000h at 25°C ambient temperature, lifetime L₈₀ > 70,000h at max. ambient temperature

ECG: 220-240V, 50/60HZ, overload and short-circuit protection

Ambient temperature: -20°C (-40°C for types ...T40) up to ..°C see product table

Options:

- 6 500K
- high colour rendering index R_a>90 (light colour 940)
- signalization with coloured LED
- amber-colored LED e. g. for insect-friendly lighting, nature reserves, locks etc.
- protection class II
- for connection to group or central battery systems (ZB) or emergency mains respectively
- PC-diffuser, frosted (PC)
- stainless steel clips (KE)
- with through wiring system

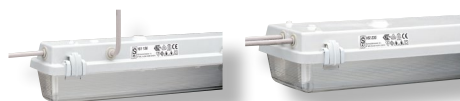


Product highlights:

- robust, extremely strong quality light fitting especially suited for rough industrial use
- high impact strength housing, excellent chemical and UV-resistance
- **highest efficiency** to use top-quality ECG and LED modules
- diffuser with high mechanical stability, fourfold safety against outer impact
- **homogeneous illumination by using frosted diffusers**, no particular light points visible, comfortable perception of light, brilliant glare limitation
- **high colour rendering CRI > 80**, according to the workplace guide lines suitable for nearly all plant locations
- with ∇ -sign, suitable for rooms with increased fire risk due to deposits of combustible dust and fibrous materials
- ECG and reflector with LED-modules can be replaced by qualified personnel on-site (no single use light fitting)
- future proof by using standardized LED-modules (Zhaga)

Cable entries for looping the mains cable on one side (loop in/loop out):

Optionally the light fittings can be supplied with 2 cable entries on one small side. This feature allows an optimal adjustment to all local conditions and it will consequently save the typical quite expensive through wiring system (preparation at additional cost).



Notes:

Maximum energy saving by using types which are optimized for energy consumption.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max.[°C]	Substitute for ca. *	Weight [kg] without packing material
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161/162...



optimized for energy consumption (1 : 1 substitute for fluorescent types)

16117 0309	161 06L12	1	10	1.390	139	40	1 x 18W	1,8
16117 0301	161 12L22	1	15	2.390	159	40	1 x 36W	2,7
16117 0303	161 15L34	1	21	3.440	164	40	1 x 58W	3,0
16117 0310	161 06L20	1	16	2.370	148	40	2 x 18W	1,8
16117 0302	161 12L42	1	27	4.240	157	40	2 x 36W	2,7
16117 0304	161 15L60	1	39	6.160	158	40	2 x 58W	3,0

with high luminous flux

16117 0305	161 12L60	1	39	5.920	152	30	2 x 58W	2,7
16117 0306	161 15L75	1	49	7.440	152	30	> 2 x 58W	3,0
16215 0302	162 12L120	2	78	11.410	146	35	2 x 80 bzw. 3 x 58W	4,3
16215 0303	162 15L150	2	97	14.310	148	35	4 x 58W	4,8

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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161/162... DIMD



dimnable via DALI interface

Design:

Same as standard version, but with DALI2-ECG and 2 additional clamping points, marked with DA, the polarity does not matter. Dimming Dimming level 1 -100%. Compatible with LIMAS Line Light Management System.

Note:

The conducting wires to the control input must be mains voltage stable and can be integrated in the connection cable.

16117 0319	161 06L12 DIMD	1	10	1.390	139	40	1 x 18W	1,9
16117 0311	161 12L22 DIMD	1	15	2.390	159	40	1 x 36W	2,8
16117 0313	161 15L34 DIMD	1	21	3.440	164	40	1 x 58W	3,1
16117 0320	161 06L20 DIMD	1	16	2.370	148	40	2 x 18W	1,9
16117 0312	161 12L42 DIMD	1	27	4.240	157	40	2 x 36W	2,8
16117 0314	161 15L60 DIMD	1	39	6.160	158	40	2 x 58W	3,1
16117 0315	161 12L60 DIMD	1	39	5.920	152	30	2 x 58W	2,7
16117 0316	161 15L75 DIMD	1	49	7.440	152	30	> 2 x 58W	3,1
16215 0312	162 12L120 DIMD	2	78	11.410	146	35	2 x 80 bzw. 3 x 58W	4,4
16215 0313	162 15L150 DIMD	2	97	14.310	148	35	4 x 58W	4,9



161... DIMC



dimnable via „Corridor Mode“

Applications:

Areas where light fittings are controlled via motion detector or door contact, e.g storage areas, shelf aisles. Areas with high energy-saving potential at times without presence of persons, e.g. car parks, warehouses, aisles in rack areas etc.

Design:

Same as standard version, but with dimmable ECG and additional clamping point, marked with L'.

Note:

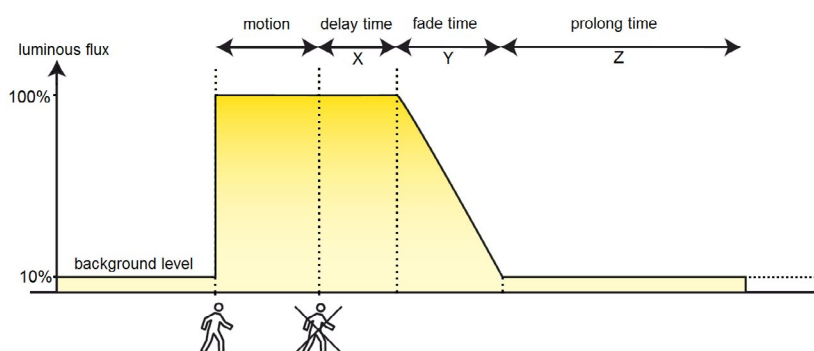
Such light fitting can be controlled by a light fitting of type 161 .. L ..SENS.

Technical data:

The corridor function allows easy power reduction at a fixed value by means of an ordinary 230V control voltage.

Default settings:

- The Corridor Mode must be enabled during the installation of the light fittings. (s. mounting Instructions)
- 100% luminous flux as long as the control phase is active.
- Holding time of 100% luminous flux after switching off the control phase = 0 seconds. By setting the switch-off delay of the motion detector the customer can select an individual holding time
- Dimming ramp 30 seconds
- 10% luminous flux when no movement is detected (reduced operation).
- Automatic cutoff deactivated (light fitting never switches off and provides a background illumination of 10%, but can be switched off by user at any time).



Note:

Since the switching capabilities of LED modules and control devices are limited, dimming without switching of the light fitting completely will result in a much longer life of the light fitting.

16117 0420	161 12L22 DIMC	1	15	2.390	159	40	1 x 36W	2,8
16117 0422	161 15L34 DIMC	1	21	3.440	164	40	1 x 58W	3,1
16117 0421	161 12L42 DIMC	1	27	4.240	157	40	2 x 36W	2,8
16117 0423	161 15L60 DIMC	1	39	6.160	158	40	2 x 58W	3,1

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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161... DIMC-Z30



dimable via „Corridor Mode“ and automatic switch-off function

Design:

As DIMC version but with automatic switch-off after 30 minutes.

Note:

The light fittings can be controlled with a 161...SENS-Z30 type.

Default settings different from DIMC types:

- the Corridor Mode is activated at the factory
- automatic cutoff activated (10% background illumination for 30 minutes, then the light fitting is switched off [0%]).

16117 0710	161 12L22 DIMC-Z30	1	15	2.390	159	40	1 x 36W	2,8
16117 0712	161 15L34 DIMC-Z30	1	21	3.440	164	40	1 x 58W	3,1
16117 0711	161 12L42 DIMC-Z30	1	27	4.240	157	40	2 x 36W	2,8
16117 0713	161 15L60 DIMC-Z30	1	39	6.160	158	40	2 x 58W	3,1

161... SENS



DIMC version with integrated motion detector

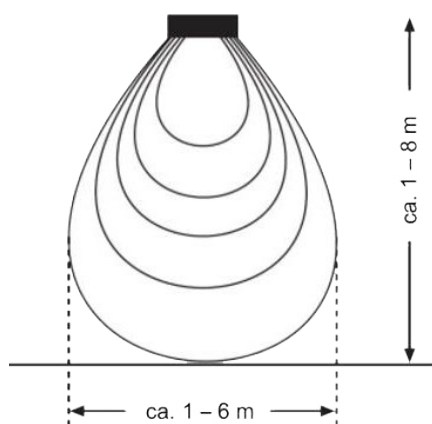
Applications:

Areas with high energy-saving potential in times without presence of persons, e.g. car parks, warehouses, aisles in rack areas etc.

Design:

Same as standard version, but with dimmable ECG, integrated motion detector and additional clamping point, marked with 'L'. This light fitting (Master) controls all fittings of type 161... DIMC (Slaves), which are connected to the same circuit.

Detection range of sensor



Technical data:

Detection range of sensor: Adjustable from 1 m - 6 m (depending on the environment); Default: Maximum
 - Objects (partition walls made from steel, concrete beams, etc.) which absorb or reflect the radar waves affect the detection range of the sensor. This must be checked and taken into account in the planning
 - In general, the detection of radial movements (towards the HF sensor) is more reliable than the detection of tangential movements.

- Tangential movements in a circular path are partially not detected.

- Detection range max. 4m at light point heights of about 2.30m

- Detection range max. 6m at light point heights up to max. 8m.

Delay time: Adjustable from 10 sec to 30 min; with Infrared remote control to 60 min; Default: 5 min

Daylight control: Adjustable from 2 Lux; Default: Maximum

Ambient temperature: -20 °C up to see article table

Factory settings:

- Dimming ramp 30 seconds

- 10% luminous flux when no movement is detected (reduced operation).

- Automatic cutoff deactivated (light fitting never switches off and provides a background illumination of 10%, but can be switched off by user at any time).

Parameter setting:

- Potentiometer on the HF sensor

- Infrared remote control (optional)

16117 0697	161 12L22 SENS	1	15	2.390	159	40	1 x 36W	2,9
16117 0699	161 15L34 SENS	1	21	3.440	164	40	1 x 58W	3,2
16117 0698	161 12L42 SENS	1	27	4.240	157	40	2 x 36W	2,9
16117 0700	161 15L60 SENS	1	39	6.160	158	40	2 x 58W	3,2

161... SENS-Z30



DIMC version with integrated motion detector

Design:

As SENS version but with automatic switch-off after 30 minutes.

Default settings different from SENS types:

- the Corridor Mode is activated at the factory
- automatic cutoff activated (10% background illumination for 30 minutes, then the light fitting is switched off [0%]).

16117 0715	161 12L22 SENS-Z30	1	15	2.390	159	40	1 x 36W	2,9
16117 0718	161 15L34 SENS-Z30	1	21	3.440	164	40	1 x 58W	3,2
16117 0716	161 12L42 SENS-Z30	1	27	4.240	157	40	2 x 36W	2,9
16117 0719	161 15L60 SENS-Z30	1	39	6.160	158	40	2 x 58W	3,2

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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161/162... TB



narrow-wide beam, optics with 60° angle (TB)

Applications:

Illumination for workplaces, aisles, etc.

Design:

Same as standard versions 161/162... LED, but with narrow-wide beam optics with 60° (TB) beam angle.

16117 0604	161 15L60TB	1	39	5.980	153	40	2 x 58W	3,2
16215 0601	162 15L120TB	2	78	11.960	153	40	2 x 80 bzw. 3 x 58W	5,4

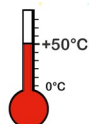
161... H50



for high ambient temperatures up to +50°C

Applications:

Power plants, steel plants, machine-oriented areas, areas with high process waste heat, areas close to the ceiling with accumulating heat etc.



16117 0324	161 06L12 H50	1	10	1.390	139	50	1 x 18W	2,0
16117 0334	161 06L12 H50 DIMD	1	10	1.390	139	50	1 x 18W	2,0
16117 0321	161 12L22 H50	1	15	2.390	159	50	1 x 36W	2,7
16117 0331	161 12L22 H50 DIMD	1	15	2.390	159	50	1 x 36W	2,8
16117 0322	161 15L34 H50	1	21	3.440	164	50	1 x 58W	3,0
16117 0332	161 15L34 H50 DIMD	1	21	3.440	164	50	1 x 58W	3,1
16117 0490	161 06L20 H50	1	16	2.370	148	50	2 x 18W	2,0
16117 0493	161 06L20 H50 DIMD	1	16	2.370	148	50	2 x 18W	2,0
16117 0491	161 12L42 H50	1	27	4.240	157	50	2 x 36W	2,7
16117 0494	161 12L42 H50 DIMD	1	27	4.240	157	50	2 x 36W	2,8
16117 0492	161 15L60 H50	1	39	6.160	158	50	2 x 58W	3,0
16117 0495	161 15L60 H50 DIMD	1	39	6.160	158	50	2 x 58W	3,1

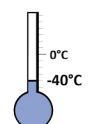
161... T40



for ambient temperatures down to -40°C

Applications:

Cooling chambers, frozen food stock etc.



16117 0409	161 06L12 T40	1	9	1.190	132	40	1 x 18W	1,8
16117 0401	161 12L22 T40	1	14	2.390	171	40	1 x 36W	2,7
16117 0403	161 15L34 T40	1	21	3.440	164	40	1 x 58W	3,0
16117 0410	161 06L20 T40	1	13	2.070	159	40	2 x 18W	1,8
16117 0402	161 12L42 T40	1	27	4.240	157	40	2 x 36W	2,7
16117 0404	161 15L60 T40	1	38	6.160	162	40	2 x 58W	3,0

161/162... T40 / H...



for high ambient temperatures up to +70°C

and wide temperature ranges from -40°C up to +70°C

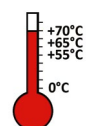
Applications:

Climatic chambers, material container, test benches in the automotive industry, regions with extreme temperature fluctuations etc.

Design:

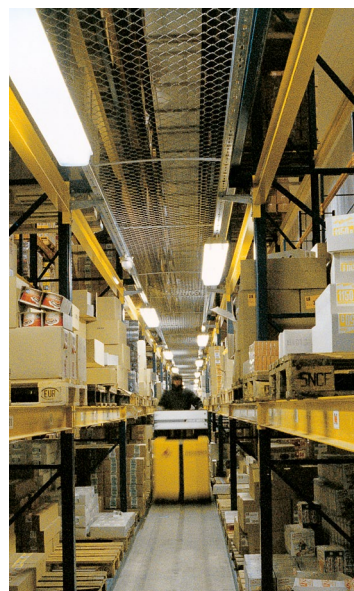
As standard version, but:

Diffuser: Injection-molded polycarbonate, frosted for glare limitation.



16117 0509	161 06L12 T40 H65	1	9	1.190	132	65	1 x 18W	1,8
16117 0501	161 12L22 T40 H65	1	14	2.390	171	65	1 x 36W	2,7
16117 0503	161 15L34 T40 H65	1	21	3.440	164	65	1 x 58W	3,0
16117 0510	161 06L20 T40 H55	1	13	2.070	159	55	2 x 18W	1,8
16117 0502	161 12L42 T40 H55	1	27	4.240	157	55	2 x 36W	2,7
16117 0504	161 15L60 T40 H55	1	38	6.160	162	55	2 x 58W	3,0
16215 0520	162 12L22 T40 H70	1	15	2.390	159	70	1 x 36W	4,1
16215 0501	162 15L34 T40 H70	1	21	3.440	164	70	1 x 58W	4,8
16215 0521	162 12L42 T40 H70	1	28	4.840	173	70	2 x 36W	4,1
16215 0502	162 15L60 T40 H60	1	39	6.590	169	60	2 x 58W	4,8

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.



Dustproof/Waterproof Light Fittings

Notes:

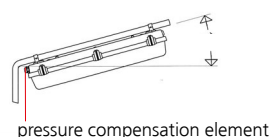
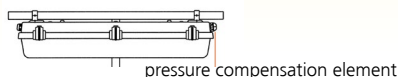
The light fitting is **not suitable** for use in extremely exposed locations with high mechanical stress (wind load) or infrequent or occasional use (e.g. maintenance or inspection lighting).

For use in extremely exposed locations with high mechanical loads (wind load), we recommend our series 144 ... AUS or 107 ... G2 (PRIMO XR).

For infrequent or occasional use, we recommend our series 107 ... G2 (PRIMO XR) or the installation of a weather protection cover over the luminaire.

When mounting the light fittings on bracket poles or tubular beams/pipes always use original SCHUCH pipe clamps with support (see accessories).

pole mount with pipe clamps



Notes:

The light fittings in Version IFS are not suitable for cleaning with cleaning agents or disinfectants as well as the cleaning with water-jet units.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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161/162... AUS



for application in unprotected outdoor areas

Applications:

In protected and unprotected outdoor areas and industrial plants, mounted to walls, ceilings, catwalks and steel structures, pipe brackets, grating, under canopies, bus stops, train stations, subways, construction sites, etc.

Design:

As type 161/162... LED, but:

Diffuser: UV proof

Pressure compensation element: M20

Entries: 1 gland M20 at one small side, pressure compensation element M20 at the other small side.

Mounting:

Ceiling and horizontal wall mount or mounting to outreaches, poles, steel structures, catwalks, etc. by means of pipe clamps. For vertical mounting please consult us.

Advantages of the AUS design:

- glass fibre reinforced polyester housing, durable resistant against UV-radiation and chemical components.
- our injection-molded PMMA-covers are extremely UV-resistant and robust (wall thickness 1.9mm)
- profile gaskets are UV-, ozone-, weather-, chemically resistant and non-aging
- pressure compensation element provides controlled venting and thus protects against condensation
- the fitting can be installed in canopied as well as in entirely open outdoor areas

optimized for energy consumption (1 : 1 substitute for fluorescent types)

16117 0350	161 06L12 AUS	1	10	1.390	139	40	1 x 18W	1,8
16117 0351	161 12L22 AUS	1	15	2.390	159	40	1 x 36W	2,7
16117 0353	161 15L34 AUS	1	21	3.440	164	40	1 x 58W	3,0
16117 0358	161 06L20 AUS	1	16	2.370	148	40	2 x 18W	1,8
16117 0352	161 12L42 AUS	1	27	4.240	157	40	2 x 36W	2,7
16117 0354	161 15L60 AUS	1	39	6.160	158	40	2 x 58W	3,0

with high luminous flux

16117 0355	161 12L60 AUS	1	39	5.920	152	30	2 x 58W	2,7
16117 0356	161 15L75 AUS	1	49	7.440	155	30	> 2 x 58W	3,0
16215 0352	162 12L120 AUS	2	78	11.410	146	35	2 x 80 bzw. 3 x 58W	4,3
16215 0353	162 15L150 AUS	2	97	14.310	148	35	4 x 58W	4,8

161/162... IFS



for application in food industry areas

Applications:

Food industry or food processing factories, suppliers to the food industry who are falling in the International Featured Standard Food, BRC, HACCP or who are subject to comparably strict requirements.

Design:

Same as type 161/162 ... L, but:

Diffuser: cover Polycarbonate, frosted.

Closure clips: Stainless steel (KE), incl. 2 safety clips (KES) to ensure protection against contact.

optimized for energy consumption (1 : 1 substitute for fluorescent types)

16119 0039	161 06L12 IFS	1	10	1.390	139	40	1 x 18W	1,8
16119 0041	161 12L22 IFS	1	15	2.390	159	40	1 x 36W	2,7
16119 0042	161 15L34 IFS	1	21	3.440	164	40	1 x 58W	3,0
16119 0040	161 06L20 IFS	1	16	2.370	148	40	2 x 18W	1,8
16119 0043	161 12L42 IFS	1	27	4.240	157	40	2 x 36W	2,7
16119 0044	161 15L60 IFS	1	39	6.160	158	40	2 x 58W	3,0

with high luminous flux

16119 0305	161 12L60 IFS	1	39	5.920	152	30	2 x 58W	2,7
16119 0046	161 15L75 IFS	1	49	7.440	155	30	> 2 x 58W	3,0
16219 0302	162 12L120 IFS	2	78	11.410	146	35	2 x 80 bzw. 3 x 58W	4,3
16219 0004	162 15L150 IFS	2	97	14.310	148	35	4 x 58W	4,8

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

IFS/BRC/VDMA/HACCP

SCHUCH Light Fittings designed for food and beverage industry applications are in accordance with IFS/BRC/VDMA standards. They can be operated without restrictions in operations that must fulfill the HACCP Concept.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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161/162... LM



for application in food areas

Applications:

Food industry or food processing factories especially in risky areas of the food production or processing, suppliers to the food industry who are falling in the International Featured Standard Food, BRC or HACCP standards or who are subject to comparably strict requirements (e.g. production of food packaging).

Design:

Same as type 161/162... LED but:

Diffuser: Shatterproof, high chemical resistance, elements for glare limitation mounted to the reflector.

Closure clips: Stainless steel (KE), incl. 2 safety clips (KES) to ensure protection against contact.



Note:

The colour rendering index Ra does not incorporate the remaining part (R9) in the light spectrum. The standard light colour 840 has only a minor R9 value. For meat processing factories, we recommend the use of our light fittings with light colour 940 (special version), which emits a bigger amount of red light.

Advantages of the LM version:

- shatterproof diffuser with very high impact resistance (16Nm!) even at a high continuous operating temperature
- resistant to grease and aggressive cleaning agents, disinfectants and solvents (we recommend the respective cleaning agents and disinfectants to be tested on their resistance (resistance index on request).)

IFS/BRC/VDMA/HACCP

SCHUCH Light Fittings designed for food and beverage industry applications are in accordance with IFS/BRC/VDMA standards. They can be operated without restrictions in operations that must fulfill the HACCP Concept.

optimized for energy consumption (1 : 1 substitute for fluorescent types)

16119 0005	161 06L12 LM	1	10	1.390	139	40	1 x 18W	1,8
16119 0001	161 12L22 LM	1	15	2.390	159	40	1 x 36W	2,7
16119 0002	161 15L34 LM	1	21	3.440	164	40	1 x 58W	3,0
16119 0006	161 06L20 LM	1	16	2.370	148	40	2 x 18W	1,8
16119 0003	161 12L42 LM	1	27	4.240	157	40	2 x 36W	2,7
16119 0004	161 15L60 LM	1	39	6.160	158	40	2 x 58W	3,2

with high luminous flux

16119 0018	161 12L60 LM	1	39	5.920	152	30	2 x 58W	2,7
16119 0019	161 15L75 LM	1	49	7.440	152	30	> 2 x 58W	3,0
16219 0002	162 15L100 LM	2	67	10.510	157	40	2 x 80W	4,8
16219 0006	162 12L120 LM	2	78	11.410	146	35	2 x 80 bzw. 3 x 58W	4,3
16219 0007	162 15L150 LM	2	97	14.310	148	35	4 x 58W	4,8

161... LM H50



for high ambient temperatures up to +50°C

16119 0067	161 06L12 LM H50	1	10	1.390	139	50	1 x 18W	2,0
16119 0051	161 12L22 LM H50	1	15	2.390	159	50	1 x 36W	2,8
16119 0052	161 15L34 LM H50	1	21	3.440	164	50	1 x 58W	3,0
16119 0050	161 06L20 LM H50	1	16	2.370	148	50	2 x 18W	1,6
16119 0053	161 12L42 LM H50	1	27	4.240	157	50	2 x 36W	4,3
16119 0054	161 15L60 LM H50	1	39	6.160	158	50	2 x 58W	3,1

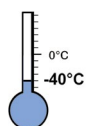
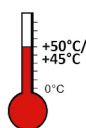
161... LM T40



for ambient temperatures down to -40°C

16119 0101	161 12L22 LM T40	1	14	2.390	171	40	1 x 36W	2,7
16119 0102	161 15L34 LM T40	1	21	3.440	164	40	1 x 58W	3,2
16119 0103	161 12L42 LM T40	1	27	4.240	157	40	2 x 36W	2,7
16119 0104	161 15L60 LM T40	1	38	6.160	162	40	2 x 58W	3,2

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.



Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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161... ER / HR (RESISTANT)



for use in hazardous areas

Note:

See notes in the technical appendix, chapter 4.1.

Applications:

Areas in trade, trade and industry with corrosive atmospheres or craft gases and vapors that can damage the LED up to and including total failure.
E.g. chemical industry, galvanizing plants, electroplating plants, foundries, tire production and storage, paper mills, sewage treatment plants, waste incineration plants etc. Advice on request.

Design:

Like the standard version, but with modifications for increased (ER) or high (HR) protection against corrosive atmospheres or harmful gases.

Options:

– stainless steel clips (KE)

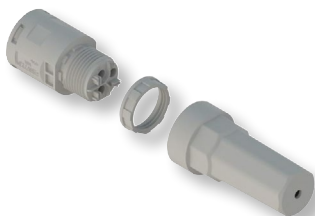
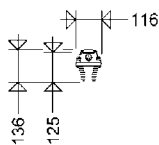
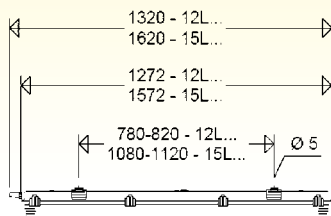
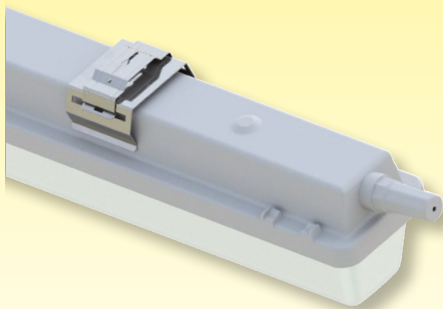
– with through wiring system

– for higher ambient temperatures up to +50°C

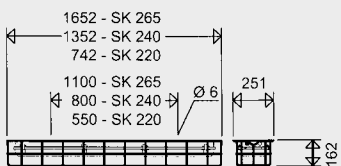
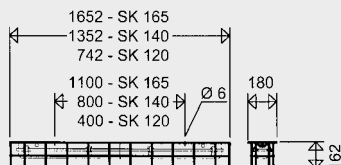
16123 0003	161 12L22 ER	1	15	2.490	166	40	1 x 36W	2,7
16123 0005	161 15L34 ER	1	21	3.590	171	40	1 x 58W	3,0
16123 0004	161 12L42 ER	1	27	4.410	163	40	2 x 36W	2,7
16123 0006	161 15L60 ER	1	39	6.400	164	40	2 x 58W	3,0
16123 0503	161 12L22 HR	1	15	2.490	166	40	1 x 36W	3,0
16123 0505	161 15L34 HR	1	21	3.590	171	40	1 x 58W	3,3
16123 0504	161 12L42 HR	1	27	4.410	163	40	2 x 36W	3,0
16123 0506	161 15L60 HR	1	39	6.400	164	40	2 x 58W	3,3

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.





Protective guard



Pipe clamp R1 1/2" - Ø 48,3mm
R2" - Ø 60,3mm



Ceiling bracket 183 DS



Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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161... FastFix/FastConnect (FF/FC)



with FastFix mounting system

Design: Same as standard but, with pre-assembled quick mounting system (FastFix) and quick connector (FastConnect), for 3-pole connecting cable up to 2.5mm² (Ø 7.5 – 12.5mm)

Advantages of the FastFix/FastConnect version:

- FastFix bracket and quick connector pre-assembled
- installation and electrical connection without opening the light fitting
- saves at least 60% mounting time

16117 0801	161 12L22 FF/FC	1	15	2.390	159	40	1 x 36W	2,7
16117 0803	161 15L34 FF/FC	1	21	3.440	164	40	1 x 58W	3,0
16117 0802	161 12L42 FF/FC	1	27	4.240	157	40	2 x 36W	2,7
16117 0804	161 15L60 FF/FC	1	39	6.160	158	40	2 x 58W	3,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Note:

The FC version can be supplied together with various special versions. The maximum possible ambient temperature is 50 °C.

FC is not available with the variants AUS (unprotected outdoor area) and LM (food industry) combinable.

Accessories / Spare Parts

Article no.	Type		Article no.	Type	
spare glasses, PMMA frosted			spare glasses, PC frosted		
16111 9035	161 018 F	for 161 06..	16111 9036	161 018 FPC	for 161 06..
16111 9031	161 036 F	for 161 12..	16111 9033	161 036 FPC	for 161 12..
16111 9032	161 058 F	for 161 15..	16111 9034	161 058 FPC	for 161 15..
16211 9035	162 018 F	for 162 06..	16211 9030	162 018 FPC	for 162 06..
16211 9031	162 036 F	for 162 12..	16211 9033	162 036 FPC	for 162 12..
16211 9032	162 058 F	for 162 15..	16211 9034	162 058 FPC	for 162 15..
spare glasses LM-version 161...			spare glasses LM-version 162...		
16111 9017	161 018 LM	for 161 06..	16211 9018	162 036 LM	for 162 12..
16111 9018	161 036 LM	for 161 12..	16211 9019	162 058 LM	for 162 15..
16111 9019	161 058 LM	for 161 15..			
Wire guards, powder coated					
90004 0001	SK 120	for 161 06..	90004 0004	SK 220	for 162 06..
90004 0002	SK 140	for 161 12..	90004 0005	SK 240	for 162 12..
90004 0003	SK 165	for 161 15..	90004 0006	SK 265	for 162 15..
Fasteners					
90053 9008	KK/KKS FR VE10	plastic, incl. 2 safety clips (packing unit 10 pcs.)			
90055 9004	KE/KES VE10	stainless steel, incl. 2 safety clips (packing unit 10 pcs.)			
90053 9004	KKS P	1 pair of safety clips (for LED version), plastic			
90055 9005	KES P	1 pair of safety clips (for LED version), stainless steel			
Cable entries/pressure compensation elements					
90063 9000	2511	blanking plug M20			
25610 9000	2561	plastic cable gland M20 x 1,5			
25600 9000	2560	plastic cable gland M25 x 1,5			
90259 9002	DAE20	pressure compensation element M20			
90259 9003	DAE 20/25	adapter gland M20 -> M25 with pressure compensation			
Pipe clamps					
90093 0002	183 RO 112 A P	2 pcs., 1 1/2" stainless steel, with support			
90094 0002	183 RO 2 A P	2 pcs., 2" stainless steel, with support			
Consider mounting distances when installing the light fittings by pipe clamps to pole outraches or any brackets.					
Angle brackets, aluminium					
90045 9001	HW 30 P	pair of angle brackets 30°			
90045 9002	HW 45 P	pair of angle brackets 45°			
90045 9004	HW 60 P	pair of angle brackets 60°			
90045 9003	HW 90 P	pair of angle brackets 90°			
Accessories for ceiling mounting					
90049 0002	183 S	hook for chain suspension			
90095 0001	183 DS	stainless steel bracket with bolt M5			
Infrared remote control for SENS-light fittings					
90295 9000	FB SENSOTEC-Mini	Infrared remote control for 161 ..L.. SENS			

Dustproof/Waterproof LED Light Fitting with Diffuser with variable setting of the luminous flux

Series 161... VARIO

Applications:

Areas, where one standardised LED-light fitting shall be used for different illumination tasks. In humid, wet and dusty indoor areas of industrial and agricultural premises, for workshops and car parks, roofed outdoor areas, hard to reach areas with high downtime and maintenance costs when replacing the lamps etc. (Aggressive atmospheres: Please consult us.)

Design:

Housing: Glass fibre reinforced polyester resin, silicone gasket.

Diffuser: Injection-molded acrylic glass,

frosted for glare limitation.

Closure: Three-part captive plastic clips (KK), incl. 2 safety clips (KKS) to ensure protection against contact.

Reflector: Aluminium, painted can be suspended and carries the electrical components.

Connection: 3-pole terminal

Cable entries: 2 plugs M20.

Mounting: Closed knock-outs for direct ceiling mounting (to be opened on site).

Sealing and pressure disks inside each fitting.

Technical data:

LED: Linear modules 4,000K, CRI > 80, lifetime L_{90} > 50.000h at 25°C ambient temperature, lifetime L_{80} > 70,000h at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short-circuit protection

DIP switch for setting the luminous flux of the luminaire.

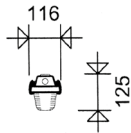
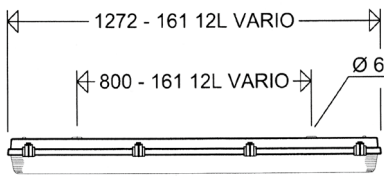
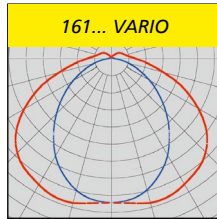
Ambient temperature: -20°C up to +35/40/45°C (see type table)

Options:

– 6.500K

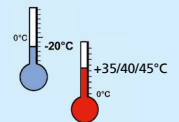
– with through wiring system

– PC-diffuser frosted (PC)



Product highlights:

- universally usable due to variable setting of the luminous flux, depending on the requirement (replaces fluorescent lamps from 1x36W up to 2x58W)
- quick and easy adjustment on-site
- can be changed at any time (e.g. change of use of the premises with new requirements in regard to the level of illumination)
- robust, extremely strong quality light fitting especially suited for rough industrial use
- high impact strength housing, excellent chemical and UV-resistance
- highest efficiency due to use of top-quality ECGs and LED modules
- homogeneous illumination by using frosted diffusers, no particular light points visible, comfortable perception of light, brilliant glare limitation
- high colour reproduction CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- with ∇ -sign, suitable for rooms with increased fire risk due to deposits of combustible dust and fibrous materials
- for temperatures from -20°C up to +35/40/45°C (depending on setting)
- economical storage due to standardisation (only one light fitting instead of multiple versions)
- ECG and Reflector with LED-modules replaceable by qualified personnel on-site (no single use light fitting)
- future proof by using LED-modules according to Zhaga standard



Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Amb. temp. max. [°C]	Substitute for ca. *	(without packing material)
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161... VARIO



The luminous flux is variably adjustable to almost every value between 2.410lm and 5.920lm. Power consumption and

admissible ambient temperature will change depending on the setting of the luminous flux.

16117 0399	161 12L VARIO	15	2.410	160	45	1 x 36W	2,7
		22	3.610 ²⁾	164	45	1 x 58W	
		29	4.510	156	40	2 x 36W	
		39	5.920	152	35	2 x 58W	

1) Examples of possible settings
2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

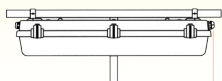
All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Notes:

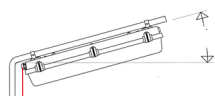
The light fitting is not to be used in areas with high mechanical stress (wind) or seldom usage (i.e. maintenance and inspection only).

When mounting the light fittings on bracket poles or tubular beams/pipes always use original SCHUCH pipe clamps with support (see accessories).

pole mount with pipe clamps



pressure compensation element



pressure compensation element

Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Amb. temp. max. [°C]	Substitute for ca. *	(without packing material)
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161... VARIO AUS



for application in unprotected outdoor areas

Applications:

In protected and unprotected outdoor areas and industrial plants, mounted to walls, ceilings, catwalks and steel structures, pipe brackets, grating, under canopies, bus stops, train stations, subways, construction sites, etc.

Design:

As type 161/162... LED, but:

Diffuser: UV proof

Pressure compensation element: M20

Entries: 1 gland M20 at one small side, pressure compensation element M20 at the other small side.

Mounting:

Ceiling and horizontal wall mount or mounting to outreaches, poles, steel structures, catwalks, etc. by means of pipe clamps. For vertical mounting please consult us.

16117 0359	161 12L VARIO AUS	15	2.410	160	45	1 x 36W	2,7
		22	3.610 ²⁾	164	45	1 x 58W	
		29	4.510	156	40	2 x 36W	
		39	5.920	152	35	2 x 58W	

1) Examples of possible settings

2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Advantages of the AUS design:

- glass fibre reinforced polyester housing, durable resistant against UV-radiation and chemical components.
- our injection-molded PMMA-covers are extremely UV-resistant and robust (wall thickness 1.9mm)
- profile gaskets are UV-, ozone-, weather-, chemically resistant and non-aging
- pressure compensation element provides controlled venting and thus protects against condensation
- the fitting can be installed in canopied as well as in entirely open outdoor areas



Dustproof/Waterproof
Light Fittings

Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Amb. temp. max. [°C]	Substitute for ca. *	(without packing material)
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161... VARIO LM



for application in food industry areas

Applications:

Food industry or food processing factories especially in risky areas of the food production or processing, suppliers to the food industry who are falling in the International Featured Standard Food, BRC or HACCP standards or who are subject to comparably strict requirements (e.g. production of food packaging).

Design:

Same as type 161 12L VARIO but:

Diffuser: Shatterproof, high chemical resistance, cover for glare limitation fixed to reflector.

Closure clips: Stainless steel (KE), incl. 2 safety clips (KES) to ensure protection against contact.

16119 0399	161 12L VARIO LM	15	2.410	160	45	1 x 36W	2,7
		22	3.610 ²⁾	164	45	1 x 58W	
		29	4.510	156	40	2 x 36W	
		39	5.920	152	35	2 x 58W	

1) Examples of possible settings

2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Advantages of the LM version:

- shatterproof diffuser with very high impact resistance (16Nm!) even at a high continuous operating temperature
- resistant to grease and aggressive cleaning agents, disinfectants and solvents (we recommend the respective cleaning agents and disinfectants to be tested on their resistance (resistance index on request.)

IFS/BRC/VDMA/HACCP

SCHUCH Light Fittings designed for food and beverage industry applications are in accordance with IFS/BRC/VDMA standards. They can be operated without restrictions in operations that must fulfill the HACCP Concept.



Accessories / Spare Parts

Article No.	Type	
Spare diffuser		
16111 9031	161 036 F	PMMA, frosted
16111 9033	161 036 FPC	PC, frosted
16111 9018	161 036 LM	LM, clear

Additional accessories see series 161/162 ...

Extremely robust Dustproof/Waterproof LED-Light Fitting with Central Locking System Series 144 ...

Applications:

In humid, wet and dusty indoor areas and roofed outdoor areas with high mechanical strains as well as areas where any external clips are not wanted or where such clips could create problems. Hard to reach areas and areas with high downtime and maintenance cost when replacing the lamps, Food industry and food processing industry etc. (Aggressive atmospheres: Please consult us).

Design:

Housing: Glass fibre reinforced polyester resin.

Diffuser: Polycarbonate, clear with internal prisms, hinged.

Gasket: Silicone.

Reflector: Aluminium painted, hinged and removable. Elements for glare limitation mounted to the reflector.

Central locking system: Operated by a hexagonal socket key 13mm.

Connection: 3-pole terminal.

Cable entries: 3 entries

M25 x 1,5 (2 glands and 2 screw plugs). Looping the mains cable at one end of the housing up to 3 x 2,5mm² possible.

Mechanical installation: 2 suspension eyes with bolts (H8V P) or 2 ceiling brackets (15A P), see accessories.

Technical data:

LED: Linear modules 4,000K, CRI > 80, lifetime L₉₀ > 50.000h at 25°C ambient temperature, lifetime L₈₀ > 70,000h at max. ambient temperature

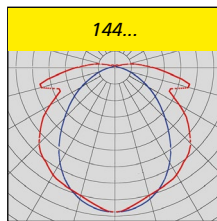
ECG: 220-240V, 50/60HZ, overload and short-circuit protection

Ambient temperature: -20°C up to see product table

Options:

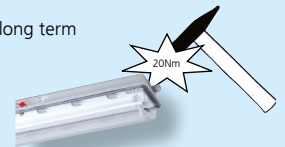
- 6.500K
- with dimming function via DALI2 interface, compatible with LIMAS Line (DIMD) Light Management System
- dimmable via „Corridor Mode“ (DIMC)
- with through wiring 2,5 sqmm

- for low ambient temperatures
- for connection to group or central battery systems (ZB) or emergency mains respectively
- emergency light version with self-contained battery

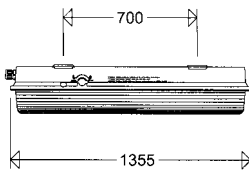


Product highlights:

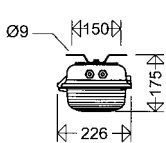
- extremely sturdy design of high mechanical and chemical resistance for a long term use in rough industrial areas:
 - housing of an impact resistance
 - polycarbonate diffuser of high impact strength
 - robust internal central locking system
 - highly resistant silicone gasket of dimensional stability for permanently safe tightness (IP66)
- **highest efficiency** due to use of top-quality ECGs and LED modules
- **homogeneous illumination by using elements for glare limitation**, no particular light points visible, comfortable perception of light, brilliant glare limitation
- **high colour rendering CRI > 80**, according to the workplace guide lines suitable for nearly all plant locations
- **with Ψ-sign**, suitable for rooms with increased fire risk due to deposits of combustible dust and fibrous materials
- best suitable in the food industry and in the food processing industry especially in risky areas falling under the IFS standards (International Featured Standard Food)
- with adapter gland with pressure compensation prevents condensation water allowing an application in all unprotected outdoor areas (Versions AUS)
- easy to install and maintain:
 - time saving easy mechanical installation by means of eye bolts or ceiling brackets without opening the light fitting
 - time saving central locking system and hinged diffuser
- ECG and reflector with LED-modules can be replaced by qualified personnel on-site (no single use light fitting)
- **future proof by using standardized LED-modules (Zhaga)**



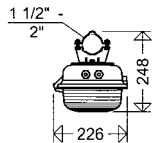
Dustproof/Waterproof Light Fittings



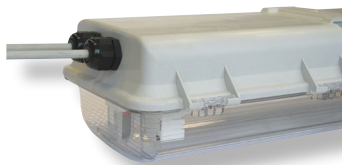
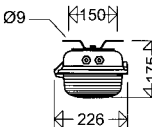
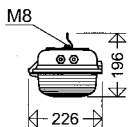
Pipe clamp mounting



Suspension eyes H8V



Ceiling brackets 15A



Looping the cable on one side:

All light fittings of series 144... have got 2 cable entries on one small side of the housing for cable looping instead of the through wiring system. This allowing a more economical cable looping at one end instead of the classical through wiring system (surcharge for 5-pole version).

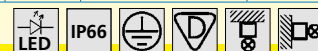
Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

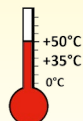
All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article No.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Amb. temp. max. [°C]	Substitute for ca. *	(without packing material)
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144 ..



14402 0001	144 12L22	14	2.300	164	50	1 x 36W	6,6
14402 0002	144 12L34	22	3.410	155	45	1 x 58W	6,6
14402 0003	144 12L42	29	4.280	148	40	2 x 36W	6,6
14402 0004	144 12L60	44	6.590	150	35	2 x 58W	6,6



Note:

This light fitting is not suitable for rare or occasional operation (e.g. maintenance and inspection lighting).

We recommend our series for use 107 ... G2 (PRIMO XR).

144 .. AUS



for application in unprotected outdoor areas

Applications:

Unprotected outdoor areas, especially in exposed areas with high mechanical stress (wind), catwalks, stairs, steel constructions, pipe brackets, on buildings, storage tank etc.

Design:

As standard type but with adapter gland with pressure compensation prevents condensation water.

Mounting:

Ceiling and horizontal wall mount or mounting to outreaches, poles, steel structures, catwalks, etc. by means of pipe clamps. When mounting the light fittings on bracket poles or tubular beams/pipes always use original SCHUCH pipe clamps with support.

14402 0011	144 12L22 AUS	14	2.300	164	50	1 x 36W	6,6
14402 0012	144 12L34 AUS	22	3.410	155	45	1 x 58W	6,6
14402 0013	144 12L42 AUS	29	4.280	148	40	2 x 36W	6,6
14402 0014	144 12L60 AUS	44	6.590	150	35	2 x 58W	6,6

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Mounting material

Suspension eyes with bolts H8V P



Ceiling brackets 15A P



Pipe clamps RO84...A P



Wall bracket W26/45 P



Further accessories such as carrier rail systems please see EX-installation material in this catalogue.

Accessories / Spare Parts

Article no.	Type	
Spare diffusers for series 144...		
84001 9004	8404 SIL	spare cover PC for 144 12L...
Cable glands/pressure compensation elements		
25600 9000	2560	ex-proof plastic cable gland M25 x 1,5
90118 9000	2538	ex-proof plastic plug M25 x 1,5
90259 9003	DAE20/25	adapter gland M20 -> M25 with pressure compensation
Mounting material		
90001 0002	H8V P	2 suspension eyes with bolts, stainless steel
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
90037 0004	RO84 112 A P	2 pipe clamps 1 1/2", stainless steel, with support
90038 0004	RO84 2 A P	2 pipe clamps 2", stainless steel, with support
26000 0008	W 26/L P	2 wall mounting angles, sendzimiz
26000 0002	W 26/30 P	2 wall mounting angles 30°, sendzimiz
26000 0003	W 26/45 P	2 wall mounting angles 45°, sendzimiz

Dustproof/Waterproof LED Light Fitting with Diffuser Series 163/164 ... G2

Applications:

In humid, wet and dusty indoor areas of industrial and agricultural premises, for workshops and car parks, cold stores, low temperature stores, cooling chambers and walkable low temperature cabins in hotels, hard to reach areas with high downtime and maintenance costs when replacing the lamps. Aggressive atmospheres: Please consult us.

Design:

Housing: Glass fibre reinforced polyester resin, foamed gasket.

Diffuser: PMMA, modified for higher impact resistance, frosted for glare limitation.

Closure: External plastic clips (KK) incl.

2 safety clips (KKS) to ensure protection against contact.

Reflector: Painted, removable complete with electronic components.

Electrical connection: 3-pole terminal block.

Cable entries: Variable, closed knock-outs on the short and long sides, and on the top, 2 blanking plugs M20.

Mounting system: 2 holes for ceiling mounting. Sealing and pressure disks for sealing are supplied inside the fitting.

Technical data:

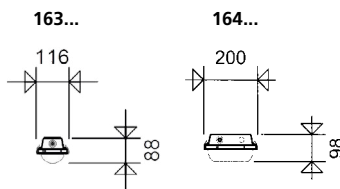
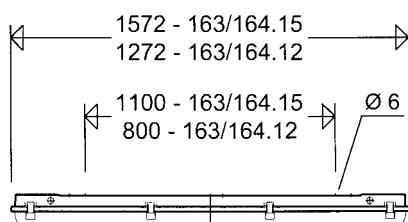
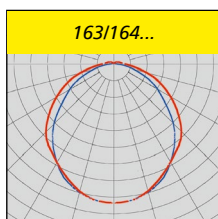
LED: Linear modules 4,000K, CRI > 80, lifetime $L_{90} > 50.000h$ at 25°C ambient temperature, lifetime $L_{80} > 70.000h$ at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short circuit protection

Ambient temperature: -20°C (-40°C for types ...T40) up to ...°C see product table

Options:

- polycarbonate diffuser stippled clear
- 6.500 K
- stainless steel clips (KE)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- with through wiring system



Product highlights:

- highest efficiency due to use of top-quality ECG and LED modules
- homogeneous illumination by using frosted diffusers, comfortable perception of light and brilliant glare limitation
- high colour reproduction $R_a > 80$, according to the guide lines for workplaces, suitable for nearly all plant locations
- with ∇ -symbol, suitable for rooms with increased fire risk due to deposits of combustible dust and fibrous materials
- no single use light fitting, ECG and reflector with LED-modules may be replaced by qualified personnel on site
- future proof by using LED-modules according to Zhaga standard

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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163/164... G2



optimized for energy consumption (1 : 1 substitute for fluorescent types)

16302 0016	163 12L22G2	1	17	2.470	145	40	1 x 36W	2,2
16302 0017	163 15L34G2	1	22	3.370	153	40	1 x 58W	2,4
16302 0018	163 12L42G2	1	28	4.160	149	40	2 x 36W	2,2
16302 0019	163 15L60G2	1	40	6.090	152	40	2 x 58W	2,4

with high luminous flux

16415 0016	164 12L90G2	2	58	8.990	155	40	2 x 80W	3,1
16415 0017	164 15L120G2	2	80	12.030	150	40	4 x 58W	3,8

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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163/164... G2 DIMD



dimnable via DALI interface

Design:

Same as standard version, but with DALI2-ECG and 2 additional clamping points, marked with DA, the polarity does not matter. Dimming level 1 -100%.

Compatible with LIMAS Line Light Management System.

Note:

The conducting wires to the control input must be mains voltage stable and can be integrated in the connection cable.

16302 0020	163 12L22G2 DIMD	1	15	2.320	155	40	1 x 36W	2,3
16302 0021	163 15L34G2 DIMD	1	21	3.330	159	40	1 x 58W	2,8
16302 0022	163 12L42G2 DIMD	1	27	4.110	152	40	2 x 36W	2,3
16302 0023	163 15L60G2 DIMD	1	39	5.970	153	40	2 x 58W	2,8
16415 0018	164 12L90G2 DIMD	2	58	8.990	155	40	2 x 80W	3,3
16415 0019	164 15L120G2 DIMD	2	80	12.030	150	40	4 x 58W	4,1

163/164 ... G2 DIMC



dimnable via „Corridor Mode“

Applications:

Areas where light fittings are controlled via motion detector or door contact, e.g. storage areas, shelf aisles. Areas with high energy-saving potential at times without presence of persons, e.g. car parks, warehouses, aisles etc.

Design:

Same as standard version, but with dimmable ECG and additional clamping point, marked with L'.

Note:

Such light fitting can be controlled by a light fitting of type 163 ... SENS.

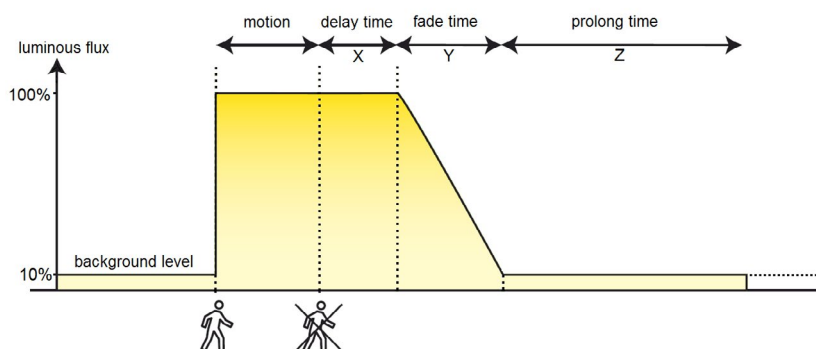


Technical data:

The corridor function allows easy power reduction at a fixed value by means of an ordinary 230V control voltage.

Default settings:

- The Corridor Mode must be enabled during the installation of the light fittings. (s. mounting Instructions)
- 100% luminous flux as long as the control phase is active.
- Holding time of 100% luminous flux after switching off the control phase = 0 seconds. By setting the switch-off delay of the motion detector the customer can select an individual holding time
- Dimming ramp 30 seconds
- 10% luminous flux when no movement is detected (reduced operation).
- Automatic cutoff deactivated (light fitting never switches off and provides a background illumination of 10%, but can be switched off by user at any time).



16302 0024	163 12L22G2 DIMC	1	15	2.320	155	40	1 x 36W	2,3
16302 0025	163 15L34G2 DIMC	1	21	3.330	159	40	1 x 58W	2,8
16302 0026	163 12L42G2 DIMC	1	27	4.110	152	40	2 x 36W	2,3
16302 0027	163 15L60G2 DIMC	1	39	5.970	153	40	2 x 58W	2,8
16415 0020	164 12L90G2 DIMC	2	58	8.990	155	40	2 x 80W	3,3
16415 0021	164 15L120G2 DIMC	2	80	12.030	150	40	4 x 58W	4,1

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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163/164 ... G2 DIMC-Z30



dimable via „Corridor Mode“ and automatic switch-off function

Design:

As DIMC version but with automatic switch-off after 30 minutes.

Note:

The light fittings can be controlled with a 161...SENS-Z30 type.

Default settings different from DIMC types:

- the Corridor Mode is activated at the factory
- automatic cutoff activated (10% background illumination for 30 minutes, then the light fitting is switched off [0%]).

16302 0120	163 12L22G2 DIMC-Z30	1	15	2.320	155	40	1 x 36W	2,3
16302 0121	163 15L34G2 DIMC-Z30	1	21	3.330	159	40	1 x 58W	2,8
16302 0122	163 12L42G2 DIMC-Z30	1	27	4.110	152	40	2 x 36W	2,3
16302 0123	163 15L60G2 DIMC-Z30	1	39	5.970	153	40	2 x 58W	2,8
16415 0030	164 12L90G2 DIMC-Z30	2	58	8.990	155	40	2 x 80W	3,3
16415 0031	164 15L120G2 DIMC-Z30	2	80	12.030	150	40	4 x 58W	4,1



163... G2 SENS



DIMC version with integrated motion detector

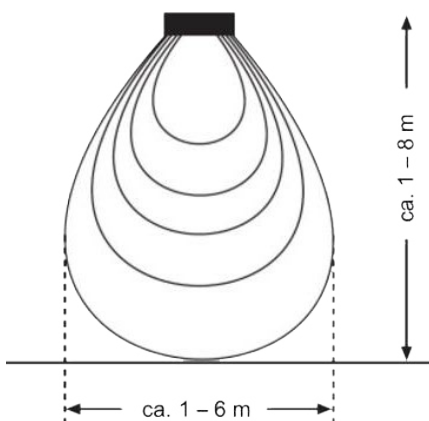
Applications:

Areas with high energy-saving potential in times without public access. Areas with high energy-saving potential at times without presence of persons, e.g. car parks, warehouses, aisles.

Design:

Same as standard version, but with dimmable ECG, integrated motion detector and additional clamping point, marked with 'L'. This light fitting (Master) controls all fittings of type 163... DIMC (Slaves), which are connected to the same circuit.

Detection range of sensor



Technical data:

Detection range of sensor: Adjustable from 1 m - 6 m (depending on the environment); Default: Maximum
 - Objects (partition walls made from steel, concrete beams, etc.) which absorb or reflect the radar waves affect the detection range of the sensor. This must be checked and taken into account in the planning
 - In general, the detection of radial movements (towards the HF sensor) is more reliable than the detection of tangential movements.

- Tangential movements in a circular path are partially not detected.

- Detection range max. 4m at light point heights of about 2.30m

- Detection range max. 6m at light point heights up to max. 8m.

Delay time: Adjustable from 10 sec to 30 min with Infrared remote control to 60 min; Default: 5 min

Daylight control: Adjustable from 2 Lux; Default: Maximum

Factory settings:

- Dimming ramp 30 seconds

- 10% luminous flux when no movement is detected (reduced operation).

- Automatic cutoff **deactivated** (light fitting never switches off and provides a background illumination of 10%, but can be switched off by user at any time).

Parameter setting:

- Potentiometer on the HF sensor

- Infrared remote control (optional)

16302 0030	163 12L22G2 SENS	1	15	2.320	155	40	1 x 36W	2,3
16302 0028	163 15L34G2 SENS	1	21	3.330	159	40	1 x 58W	2,5
16302 0031	163 12L42G2 SENS	1	27	4.110	152	40	2 x 36W	2,3
16302 0029	163 15L60G2 SENS	1	39	5.970	153	40	2 x 58W	2,5

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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163... G2 SENS-Z30



DIMC version with integrated motion detector

Design:

As SENS version but with automatic switch-off after 30 minutes.

Default settings different from SENS types:

- the Corridor Mode is activated at the factory
- automatic cutoff activated (10% background illumination for 30 minutes, then the light fitting is switched off [0%]).

16302 0124	163 12L22G2 SENS-Z30	1	15	2.320	155	40	1 x 36W	2,3
16302 0125	163 15L34G2 SENS-Z30	1	21	3.330	159	40	1 x 58W	2,5
16302 0126	163 12L42G2 SENS-Z30	1	27	4.110	152	40	2 x 36W	2,3
16302 0127	163 15L60G2 SENS-Z30	1	39	5.970	153	40	2 x 58W	2,5

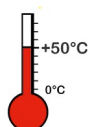
163... G2 H50



for high ambient temperatures up to +50°C

Applications:

Machine-oriented areas, areas with high process waste heat, areas close to the ceiling with accumulating heat etc.



16302 0040	163 12L22G2 H50	1	17	2.470	145	50	1 x 36W	2,3
16302 0041	163 15L34G2 H50	1	22	3.370	153	50	1 x 58W	2,4
16302 0042	163 12L42G2 H50	1	28	4.160	149	50	2 x 36W	2,3
16302 0043	163 15L60G2 H50	1	40	6.090	152	50	2 x 58W	2,4

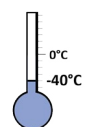
163... G2 T40



for ambient temperatures down to -40°C

Applications:

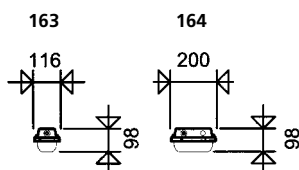
Cooling chambers, frozen food stock etc.



16302 0080	163 12L22G2 T40	1	15	2.320	155	40	1 x 36W	2,4
16302 0081	163 15L34G2 T40	1	21	3.330	159	40	1 x 58W	2,8
16302 0082	163 12L42G2 T40	1	27	4.110	152	40	2 x 36W	2,4
16302 0083	163 15L60G2 T40	1	39	5.970	153	40	2 x 58W	2,8

Notes:

The light fittings are not suitable for cleaning with cleaning agents or disinfectants as well as the cleaning with water-jet units.



163/164... IFS



for application in food industry areas

Applications:

Food industry or food processing factories, suppliers to the food industry who are falling in the International Featured Standard Food, BRC, HACCP or who are subject to comparably strict requirements.

Design:

Same as type 163/164 ... L... but:

Diffuser: cover Polycarbonate stippled clear.

Closure clips: Stainless steel (KE), incl. 2 safety clips (KES) to ensure protection against contact.

optimized for energy consumption (1 : 1 substitute for fluorescent types)

16319 0001	163 12L22 IFS	1	17	2.620	154	40	1 x 36W	2,2
16319 0002	163 15L34 IFS	1	22	3.570	162	40	1 x 58W	2,4
16319 0003	163 12L42 IFS	1	28	4.410	158	40	2 x 36W	2,2
16319 0004	163 15L60 IFS	1	40	6.460	162	40	2 x 58W	2,4

with high luminous flux

16419 0001	164 12L90 IFS	2	58	9.530	164	40	2 x 80W	3,1
16419 0002	164 15L120 IFS	2	80	12.750	159	40	4 x 58W	3,8

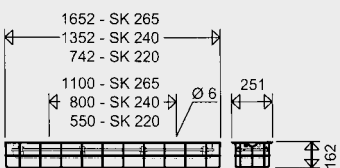
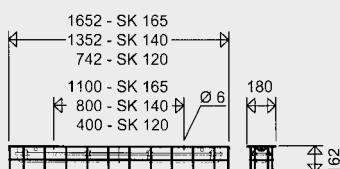
* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

IFS/BRC/VDMA/HACCP

SCHUCH Light Fittings designed for food and beverage industry applications are in accordance with IFS/BRC/VDMA standards. They can be operated without restrictions in operations that must fulfill the HACCP Concept.



Protective guard



Pipe clamp R1 1/2" - Ø 48,3mm
R2" - Ø 60,3mm



Ceiling bracket 183 DS



Accessories / Spare Parts

Article no.	Type		Article no.	Type	
Spare glasses, PMMA, frosted			Spare glasses, PC, stippled clear		
16711 9001	167 036	for 163 12 L.. G2	16311 9004	163 036 PC	for 163 12L.. IFS
16711 9002	167 058	for 163 15 L.. G2	16311 9005	163 058 PC	for 163 15L.. IFS
16411 9008	164 036 F G2	for 164 12 L.. G2	16411 9004	164 036 PC	for 164 12L.. IFS
16411 9009	164 058 F G2	for 164 15L.. G2	16411 9005	164 058 PC	for 164 15L.. IFS
16311 9006	163 036 F	for 163 12L...			
16311 9007	163 058 F	for 163 15L...			
16411 9006	164 036 F	for 164 12L...			
16411 9007	164 058 F	for 164 15L...			
Fasteners					
90123 9007	163 KK/KKS V08	plastic, incl. 2 safety clips (packing unit 8 pcs.)			
90123 9006	163 KE/KES V08	stainless steel, incl. 2 safety clips (packing unit 8 pcs.)			
90123 9004	163 KKS P	1 pair of safety clips (for LED version), plastic			
90123 9005	163 KES P	1 pair of safety clips (for LED version), stainless steel			
Cable entries					
90063 9000	2511	blanking plug M20			
25610 9000	2561	plastic cable gland M20 x 1,5			
25600 9000	2560	plastic cable gland M25 x 1,5			
Protective guard, powder coated					
90004 0002	SK 140	for 163 12...			
90004 0003	SK 165	for 163 15...			
90004 0005	SK 240	for 164 12...			
90004 0006	SK 265	for 164 15...			
Pipe clamps					
90245 0003	163 RO 112A P	1 1/2", stainless steel, with support (pair) for 163...			
90245 0004	163 RO 2A P	2", stainless steel, with support (pair) for 163...			
90245 0005	164 RO 112A P	1 1/2", stainless steel, with support (pair) for 164...			
90245 0006	164 RO 2A P	2", stainless steel, with support (pair) for 164...			
Attention: Observe the fixing distance when mounting on boom with pipe clamps (boom length!)					
Accessories for ceiling mounting					
90049 0002	183 S	swing hook for chain suspension			
90095 0001	183 DS	stainless steel bracket, with screw M5			
Infrared remote control for SENS-light fittings					
90295 9000	FB SENSOTEC-Mini	Infrared remote control for 163 ... SENS			

Dustproof/Waterproof Light Fitting with Diffuser for LED Retrofit-Lamps

Series 161/162... RLED OV 163/164... RLED OV

Application:

In humid, wet and dusty indoor areas of industrial premises, for workshops and car parks, basements etc.

Design:

Without ballast.

Housing: Glass fibre reinforced polyester resin, foamed polyurethane gasket.

Diffuser: Injected, clear acrylic glass with internal prisms. (161/162) or stippled clear (163/164).

Gasket: polyurethane foam

Closure: Three-part captive plastic clips

Reflector: Glass fibre reinforced polyester (161/162) or Sheet Steel 163/164).

Connection: 3-pole terminal block with integrated fuse for switch-off in case of Lamp fail.

Cable entries: 2 plugs M20.

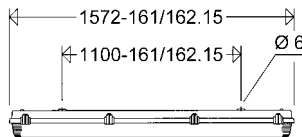
Mounting: Closed knock-outs for direct ceiling mounting (to be opened at site). Sealing and pressure disks inside each fitting.

Options:

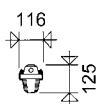
- polycarbonate diffuser stippled clear
- Diffuser Polycarbonat (PC)
- Diffuser frosted
- silicone gasket

Note:

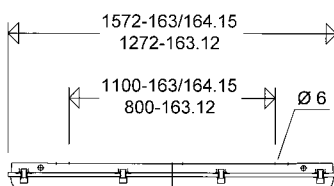
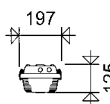
Not suitable for retrofit lamps that are designed for use in ECG luminaires. Operate IEC 62776 certified lamps only that are released by the manufacturer to operate at mains voltage.



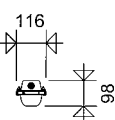
161...



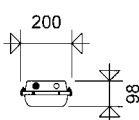
162...



163...



164...



Article no.	Type	Lamps	Length [m]	Weight [kg] without packaging material
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161/162... RLED OV



16117 0107	161 1/15 RLED OV	1 x LED-Retrofit	1,5	3,0
16215 0107	162 2/15 RLED OV	2 x LED-Retrofit	1,5	4,7

163/164... RLED OV



16302 0208	163 1/12 RLED OV	1 x LED-Retrofit	1,2	1,8
16302 0209	163 1/15 RLED OV	1 x LED-Retrofit	1,5	2,2
16415 0209	164 2/15 RLED OV	2 x LED-Retrofit	1,5	3,5

Accessories and spare parts please see section „Dustproof/Waterproof Light Fitting with Diffuser Series 161/162..., 163/164...“ in our catalogue.

LUXANO 2

Dustproof/Waterproof LED Light Fitting with Diffuser Series 167 ... G2

Applications:

In humid, wet and dusty indoor areas of industrial and agricultural premises, for workshops and car parks, hard to reach areas, areas with high downtime and maintenance cost when replacing the lamps. Aggressive atmospheres: Please consult us.

Design:

Housing: Glass fibre reinforced polyester resin, foamed polyurethane gasket.

Diffuser: PMMA, frosted for glare limitation.

Closures: stainless steel, in order to

ensure the protection against contact.

The light fitting can be opened with a tool only.

Reflector: Painted, removable, completed with electronic components.

Electrical connection: 3-pole terminal block.

Cable entries: Variable, closed knock-outs on the short and long sides and on the backside, 2 blanking plugs M20.

Mounting system: 2 retaining clips made of stainless steel, 2 bracket for chain suspension (part of the delivery)

Technical data:

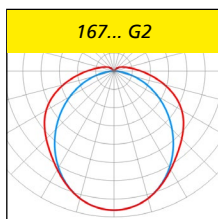
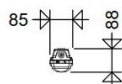
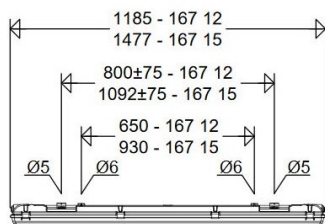
LED: Linear modules 4,000K, CRI > 80, lifetime L₈₀ > 50,000h at max. ambient temperature

ECG: 220-240V, 50/60Hz

Ambient temperature: -20°C up to +35°C

Options:

- through wiring
- quick-connector „Fast Connect“ (FC)
- cable looping (RR)
- for connection to group or central battery systems (ZB) or emergency mains respectively



Product highlights:

- quality product with high-quality components from well-known manufacturers
- homogeneous illumination by using frosted diffusers, no individual light spots visible, comfortable perception of light and excellent glare limitation
- ⚡-symbol, suitable for rooms with increased fire risk
- closures made of stainless steel
- variable cable entries, closed knock-outs on the short and long sides, and on the backside
- FastFix quick mounting system, with retaining clips made of stainless steel for variable mounting distances, without opening the fitting.
- no single use light fitting - resource-saving and environmentally friendly

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
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167... G2



16700 0012	167 15L34G2	28	3.850	138	1 x 58W	2,0
16700 0013	167 12L42G2	30	4.100	137	2 x 36W	1,7
16700 0014	167 15L60G2	43	6.000	140	2 x 58W	2,0

167... G2 DIMD



dimmmable via DALI interface

Design:

Same as standard version, but with DALI2-ECG and 2 additional clamping points, marked with DA, the polarity does not matter. Dimming level 1 -100%.

Compatible with LIMAS Line Light Management System.

Note:

The lines to the control inputs must be mains voltage-proof and can be carried along in the connecting cable.

16700 0032	167 15L34G2 DIMD	28	3.850	138	1 x 58W	2,0
16700 0033	167 12L42G2 DIMD	30	4.100	137	2 x 36W	1,7
16700 0034	167 15L60G2 DIMD	43	6.000	140	2 x 58W	2,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
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167... G2 DIMC



dimnable via „Corridor Mode“

Applications:

Areas where light fittings are controlled via motion detector or door contact, e.g. storage areas, shelf aisles. Areas with high energy-saving potential at times without presence of persons, e.g. car parks, warehouses, aisles, cold stores etc.

Design:

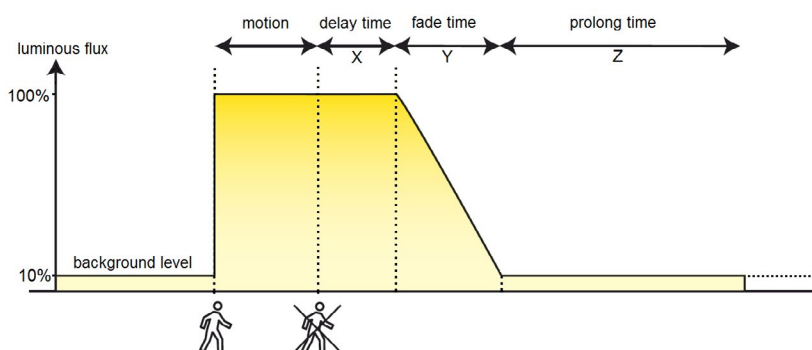
Same as standard version, but with dimmable ECG and additional clamping point, marked with L'.

Technical data:

The corridor function allows easy power reduction at a fixed value by means of an ordinary 230V control voltage.

Default settings:

- 100% luminous flux as long as the control phase is active.
- holding time of 100% luminous flux after switching off the control phase = 0 seconds. By setting the switch-off delay of the motion detector the customer can select an individual holding time
- dimming ramp 30 seconds
- 10% luminous flux when no movement is detected (reduced operation).
- automatic cutoff deactivated (light fitting never switches off and provides a background illumination of 10%, but can be switched off by user at any time).



16700 0036	167 15L34G2 DIMC	28	3.850	138	1 x 58W	2,0
16700 0037	167 12L42G2 DIMC	30	4.100	137	2 x 36W	1,7
16700 0038	167 15L60G2 DIMC	43	6.000	140	2 x 58W	2,0

167... G2 DIMC-Z30



dimnable via „Corridor Mode“ and automatic switch-off function

Design:

As DIMC version but with automatic switch-off after 30 minutes.

Default settings different from DIMC types:

- automatic cutoff activated (10% background illumination for 30 minutes, then the light fitting is switched off [0%]).

16700 0066	167 15L34G2 DIMC-Z30	28	3.850	138	1 x 58W	2,0
16700 0067	167 12L42G2 DIMC-Z30	30	4.100	137	2 x 36W	1,7
16700 0068	167 15L60G2 DIMC-Z30	43	6.000	140	2 x 58W	2,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
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Notes:

1. In case of horizontal installation, the light fitting must be fixed directly with screws (washer and pressure disk are included) or it must be mounted with reinforced retaining clips (see accessories)!
2. The light fitting is not to be used in areas with high mechanical stress (wind) or seldom usage (i.e. maintenance and inspection only).
3. We recommend our series 144... in AUS-version or a weather roof within very critical environmental conditions.

167... G2 AUS



for application in unprotected outdoor areas

Applications:

In protected and unprotected outdoor areas, mounted to walls, ceilings, catwalks, under canopies, bus stops, train stations, subways, construction sites, etc.

Design:

As type 167... G2, but:

Diffuser: UV proof

Gasket: silicone

Pressure compensation element: M20

Entries: 1 gland M20 at one small side, pressure compensation element M20 at the other small side.

Mounting system: 2 reinforced retaining clips (also suitable for horizontal wall mounting) made of stainless steel (part of the delivery)

16701 0012	167 15L34G2 AUS	28	3.850	138	1 x 58W	2,0
16701 0013	167 12L42G2 AUS	30	4.100	137	2 x 36W	1,7
16701 0014	167 15L60G2 AUS	43	6.000	140	2 x 58W	2,0

Notes:

The light fittings in Version IFS are not suitable for cleaning with cleaning agents or disinfectants as well as the cleaning with water-jet units.

167... G2 IFS



for application in food industry areas

Applications:

Food industry or food processing factories, suppliers to the food industry who are falling in the International Featured Standard Food, BRC, HACCP or who are subject to comparably strict requirements.

Design:

Same as type 167... G2 but:

Diffuser: cover Polycarbonate, frosted.

16719 0012	167 15L34G2 IFS	28	3.610	129	1 x 58W	2,0
16719 0013	167 12L42G2 IFS	30	3.850	129	2 x 36W	1,7
16719 0014	167 15L60G2 IFS	43	5.640	131	2 x 58W	2,0

167... G2 LW



for application in stables and agriculture farming

Applications:

Humid, wet and dusty indoor areas in agricultural farms, e. g. pig, dairy, cattle farming or horse stables. Rooms with increased fire risk due to deposits of combustible dusts; e. g. barns, straw, animal feed etc.

Design:

Same as type 167... G2 but with corrosion-proof and highly ammonia-resistant components.

Gasket: silicone

Cable entries: 1 gland M20 at one small side, blanking plug M20 at the other small side.

Mounting system: 2 reinforced retaining clips (also suitable for horizontal wall mounting), made of stainless steel, 2 brackets for chain suspension (part of the delivery).



Product highlights:

- permanently ammonia-resistant design
- corrosion-proof encapsulated electronic ballast
- highly resistant LED Modules with additional protective coating
- closures made of stainless steel
- ∇-symbol, suitable for rooms with increased fire risk
- extremely efficient up to 174 lm/W
- none-flickering light to avoid stress and to ensure animal welfare
- DLG (German Agricultural Society) exam



16702 0013	167 12L42G2 LW	23	4.000	174	1 x 58W	1,7
16702 0014	167 15L60G2 LW	37	6.140	166	2 x 58W	2,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
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167... G2 ER DIMD



Note:

The light fitting 167 ... G2 ER DIMD is not suitable for use in pig stalls! We recommend using our 107... PRIMO XR LW DIMD series.



for application in stables and agriculture farming

Applications:

Humid, wet and dusty indoor areas in agricultural farms, e. g. dairy, cattle farming or horse stables. Also designed for use in poultry farming in accordance with the German Animal Welfare Ordinance (TierSCHNutzTV). Rooms with increased fire risk due to deposits of combustible dusts; e. g. barns, straw or animal feed stores etc.

Design:

Like version 167 ... G2 LW but with DALI2-ECG (not encapsulated in a corrosion-proof manner) and 2 additional terminal points, labeled „DA“, polarity is irrelevant. Dimming level 1-100%.

Compatible with LIMAS Line Light Management System.

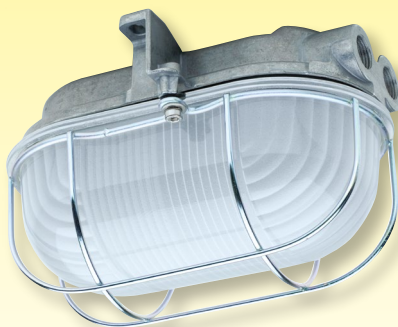
Note: The lines to the control inputs must be mains voltage-proof and can be carried along in the connecting cable.

16702 0023	167 12L42G2 ER DIMD	24	4.170	174	1 x 58W	1,7
16702 0024	167 15L60G2 ER DIMD	37	6.140	166	2 x 58W	2,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories / Spare Parts

Article no.	Type	
spare glasses, PMMA, frosted		
16711 9003	167 036G2	PMMA for 167 12L.. G2
16711 9004	167 058G2	PMMA for 167 15L.. G2
16711 9005	167 036G2 PC	PC for 167 12L.. G2 IFS
16711 9006	167 058G2 PC	PC for 167 15L.. G2 IFS
Fasteners		
90123 9008	167G2 KE V10	stainless steel (packing unit 10)
Cable entries/pressure compensation elements		
90063 9000	2511	blanking plug M20
25610 9000	2561	plastic cable gland M20 x 1,5
90259 9002	DAE20	pressure compensation element M20 for ... AUS
Accessories		
90049 0004	167 VBC P	retaining clips, reinforced for horizontal wall mount (1 pair)



LED Oval-Shaped Light Fitting Series 3610...

Applications:

Humid, wet and dusty interior areas, in areas with extreme operating conditions, for small spacing, areas that are difficult to access, purpose of signalization with coloured LED etc.

Design:

Housing: Cast aluminium, unpainted.

Wire guard: Steel, passivated.

Glass bowl: Silicate, frosted with internal prism structure, silicone gasket.

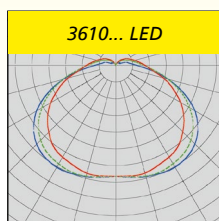
Reflector: Aluminium painted, with LED-Linear modules.

Connection: 2-pole. Earthing by separate screw at the enclosure.

Cable entries: 2 x M20 x 1.5.

Mounting system: 2 integral fixing lugs

Note: Cable glands are not included in the scope of delivery. Please order separately (See accessories).



Technical Data:

LED: Linear modules 4,000K, CRI > 80, lifetime $L_{80} > 100.000h$ at 25°C ambient temperature, lifetime $L_{80} > 90.000h$ at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short circuit protection.

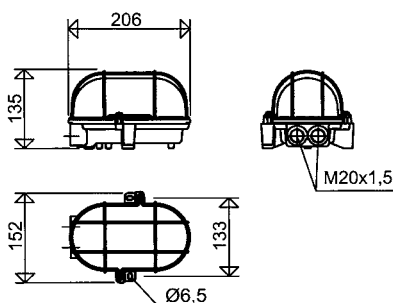
Ambient temperature: -20°C up to +35°C

Options:

– coloured LED for signalling application

Product highlights:

- robust light fitting for rough environment
- ideal for small spacing
- homogeneous illumination by using frosted diffusers, comfortable perception of light
- with ∇ -sign, suitable for rooms with increased fire risk
- quick mounting with outer fixing points
- ECG and LED-module may be replaced by qualified personnel on-site



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
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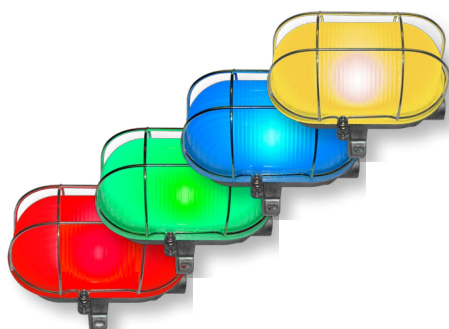
3610...



36102 0031	3610 L04	5,0	550	110	1 x 40W	1,2
36102 0032	3610 L10	9,5	960	101	1 x 75W	1,2

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

36100 0007	3610	for lamps with E27 lamp holder				1,2
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3610... with coloured LED for signalling application

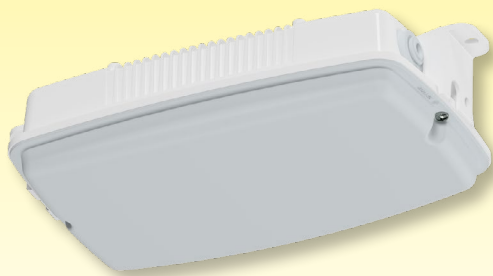
Accessories / Spare Parts

Article No.	Type	
90075 9002	1595 SATINIERT	spare glass (frosted)
36101 9000	SK 3610	spare wire guard
59600 9001	596 SIL	spare gasket
Cable glands M20 x 1,5		
25610 9000	2561	plastic gland M20 x 1.5
25730 9000	2573	plastic threaded blanking plug M20 x 1.5

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Compact LED Fitting Series 3611 ...

Applications:

Humid, wet and dusty locations, corridors, staircases, under canopies and balconies, areas with rough conditions of operation, constricted space, almost inaccessible locations, excavators, giant equipment, runways, cable channels, stair towers, walkable low temperature booths, wind power stations, purpose of signalization with coloured LED etc.

Design:

Housing: Die-cast aluminium, painted in white, all operating components located inside the housing and wired ready for connection.

Diffuser: PC satined, foamed silicone gasket.

Connection terminal: 3-poles.

Cable entry: 1 plug M20 at the front side.

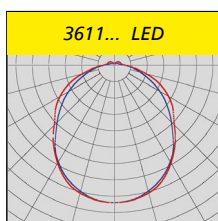
Mounting: 2 outer fixing points.

Technical data:

LED: Linear modules 4,000K, CRI > 80, lifetime $L_{80} > 60.000h$ at 25°C ambient temperature, lifetime $L_{80} > 50.000h$ at max. ambient temperature

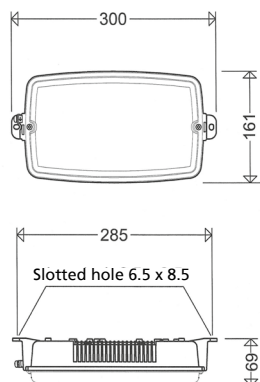
ECG: 220-240V, 50/60Hz, overload and short circuit protection.

Ambient temperatures: -20°C up to +30°C



Options:

- for connection to 24V supply
- coloured LED for signaling application
- PC glass (white opalescent)
- cable looping system on one side (RR)
- for outdoor installation
- for higher ambient temperatures
- for connection to group or central battery systems (ZB) or emergency mains respectively



Product highlights:

- robust light fitting for rough environment
- best suitable in the food industry and in the food processing industry especially in risky areas falling under the IFS standards (International Featured Standard Food)
- ideal for small spacing
- homogeneous illumination by using frosted diffusers, comfortable perception of light
- with ∇ -sign, suitable for rooms with increased fire risk
- quick mounting with outer fixing points
- ECG and LED-module may be replaced by qualified personnel on-site
- future proof by using LED-modules according to Zhaga standard

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
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3611...



36110 0006	3611 L05	6,0	660	110	1 x 8W	0,9
36110 0007	3611 L10	10,0	1.180	118	1 x 18W	0,9

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

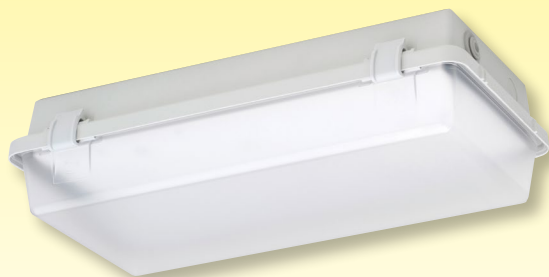


Accessories / Spare Parts

Article No.	Type	
36004 9003	3611/03	spare diffuser, PC, frosted
36004 9002	3611/02	spare diffuser, PC, white-opalescent

! Properties, limitations and details for controlling LED-light fittings:
See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Compact Dustproof/Waterproof LED-Light Fitting Series 164KL... G2

Applications:

Humid, wet and dusty, small interior areas, walkable low temperature cabins, restaurants, supermarkets, hotels etc., above doors, entrances and exits, roofed outdoor areas etc. (aggressive agents – please consult us).

Design:

Housing: Glass fibre reinforced polyester, foamed silicone gasket.

Diffuser: PMMA frosted for glare limit-

ation.

Clips: Single-piece plastic clips (KK).

Reflector: Aluminium painted, detachable, carrying the electrical components.

Connection terminal: 3 poles

Cable entries: Variable, at the ends and top of the housing, 2 plugs M20.

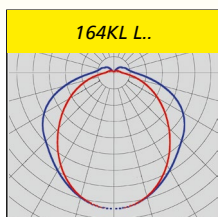
Mounting system: 2 holes for ceiling mounting. Sealing and pressure disks are supplied inside the fitting.

Technical data:

LED: Linear modules, 4.000K, CRI > 80, lifetime $L_{80} > 50,000h$ at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short circuit protection.

Ambient temperature: -20°C up to +30°C

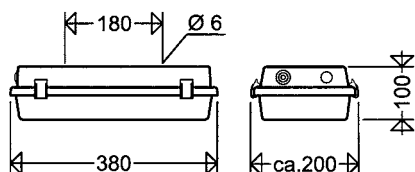


Options:

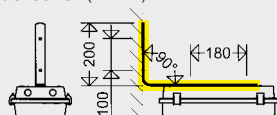
- for connection to 24V DC-supply (Type 164KL L08G2)
- for connection to group or central battery systems (ZB) or emergency mains respectively– for higher/lower ambient temperatures
- stainless steel clips (KE)
- cable entries up to M25 x 1.5
- cable looping at 1 small side (RR)
- purpose of signalization with coloured LED

Product highlights:

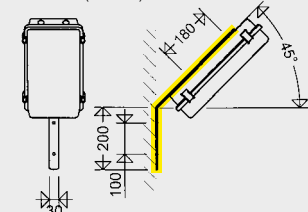
- homogeneous illumination by using frosted diffusers, comfortable perception of light and brilliant glare limitation
- high colour reproduction CRI > 80, according to the guide lines for workplaces suitable for nearly all plant locations
- with Ψ-symbol, suitable for rooms with increased fire risk due to deposits of combustible dust and fibrous materials
- no single use light fitting, ECG and reflector with LED-module may be replaced by qualified personnel on-site
- future proof by using LED-modules according to Zhaga standard



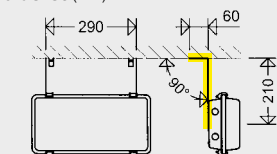
Wall bracket 45° (WA45)



Wall bracket 90° (WA90)



Ceiling bracket (DA)



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
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164KL...



16407 0031	164KL L05G2	4,5	490	109	1 x 8W	1,0
16407 0032	164KL L08G2	8,5	840	99	1 x 11W	1,0
16407 0033	164KL L11G2	10,0	1.150	115	1 x 18W	1,0
16407 0034	164KL L15G2	14,0	1.490	106	1 x 24W	1,0

*The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories / Spare Parts

Article no.	Type	
Spare glasses PMMA frosted		
16413 9007	164 000 F G2	for 164KL L... G2
Cable entries		
90063 9000	2511	blanking plug M20
25610 9000	2561	plastic cable gland M20 x 1,5
25600 9000	2560	plastic cable gland M25 x 1,5
Mounting brackets		
90232 0012	WA 45 ALU	wall bracket 45°
90232 0013	WA 90 ALU	wall bracket 90°
90232 0004	DA	1 pair of ceiling/wall bracket 90°
Fasteners		
90123 9003	163 KK VE08	plastic (packing unit 8)
90123 9002	163 KE VE08	stainless steel (packing unit 8)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Small High Impact Resistant Dust-/Waterproof LED-Light Fittings with Diffusers Series 130/131 ..

Applications:

Humid, wet and dusty interior areas, corridors, staircases, under canopies and balconies, walkable low temperature cabins, restaurants, supermarkets, hotels, for purpose of signalization with coloured LED, areas which are difficult to access etc.

Design:

Housing: Polycarbonate, white, silicone gasket.
Diffuser: Polycarbonate frosted, at one side with multiple hinge for suspending and unhinging the diffuser, captive stainless steel screw on the other side for

closing the fitting.

Reflector: Aluminium painted, with LED and all electrical components, ready wired for installation.

Connection: Via 3-pole terminal.

Cable entry:

Series 130...: 1 grommet M16 at the locking side.

Series 131...: 1 grommet M20 at each front side.

Mounting: 2 borings serve for direct ceiling mounting. Sealing and pressure disks included.

Technical data:

LED: Highpower LED, 4.000K, CRI > 80, lifetime $L_{80} > 50,000h$ at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short circuit protection.

Ambient temperature: -20°C up to +30°C

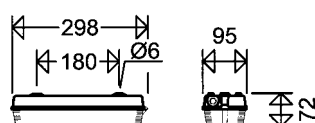
Options:

- for connection to 24V DC supply (types 130/131 L07)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- cable entry in the back of the housing

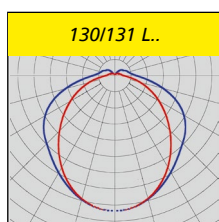
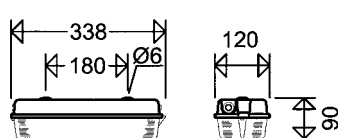
(series 130...)

- cable looping at 1 small side (131... RR)
- for higher/lower ambient temperatures
- purpose of signalization with coloured LED

Series 130...



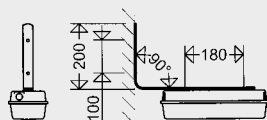
Series 131...



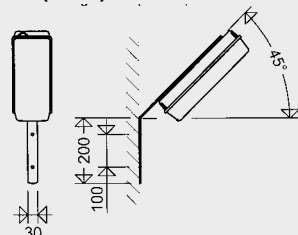
Product highlights:

- solid cover with high wall thickness also at the critical areas (corners)
- best suitable in the food industry and in the food processing industry especially in risky areas falling under the IFS standards (International Featured Standard Food)
- ideal for small spacing
- homogeneous illumination by using frosted diffusers comfortable perception of light
- high colour reproduction CRI > 80, according to the guide lines for workplaces suitable for nearly all plant locations
- with ∇ -symbol, suitable for rooms with increased fire risk due to deposits of combustible dust and fibrous materials
- ECG and reflector with LED-module may be replaced by qualified personnel on site
- future proof by using LED-modules according to Zhaga standard

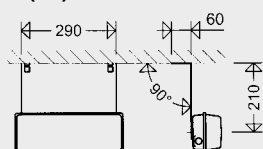
Wall bracket 90° (WA90)



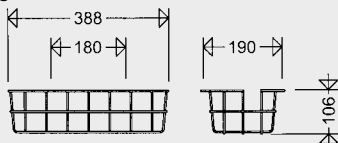
Wall bracket 45° (WA45)



Ceiling bracket (DA)



Wire guard 130/131...



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
13003 0051	130 L07	8,0	750	94	1 x 11W	0,4
13101 0001	131 L04	4,0	460	115	1 x 8W	0,5
13101 0002	131 L07	8,0	780	98	1 x 11W	0,5
13101 0003	131 L10	10,0	1.050	105	1 x 18W	0,5
13101 0004	131 L13	13,0	1.370	105	2 x 11W	0,5

130/131 ..



*The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories / Spare Parts

Article no.	Type	
13011 9007	130 000 F	Spare covers - PC, frosted (polycarbonate) for series 130... L
13111 9006	131 000 F	Spare covers - PC, frosted (polycarbonate) for series 131... L
90062 9000	2510	spare-grommet, M16 (for 130...)
90063 9000	2511	spare-grommet, M20 (for 131...)
25610 9000	2561	plastic cable gland, M20 x 1,5 (for 131...)
90004 0009	SK 130/131/2	Wire guard thick layer passivated
90232 0012	WA 45 ALU	wall bracket 45°
90232 0013	WA 90 ALU	wall bracket 90°
90232 0004	DA	ceiling bracket

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

PRIMO XR Gas-tight LED-Tube Light Fitting Series 107...

Application:

Areas which are subject to harmful gas loads, which may damage the LEDs or even cause their total failure. E. g. ammonia and sulfur compounds in companies in the chemical industry, papermaking or tire production and storage etc.

Areas where the luminaires are exposed to jet and pressurised water, high humidity, moisture and dust, for infrequent or occasional operation (inspection lighting) and in the automotive industry.

For use in agriculture and animal husbandry with high ammonia concentration, see version 107... XR LW.

Design:

Tube: Acrylic glass (PMMA), modified for higher impact resistance, frosted for glare limitation, with welded end and connection caps.

Reflector: : Aluminum, with LED Module and ECG.

Connection: 3-pole (DIMD 5-pole) quick connector (FastConnect). End cap with integrated plug, socket included in scope of delivery.

Mounting: Variable mounting distance by means of stainless steel pipe clamps (included in scope of delivery). For direct ceiling and wall mounting.

Note:

The housing materials used for the PRIMO XR show good chemical resistance against a variety of chemicals. See also paragraph "Plastics in SCHUCH luminaires" in the "Technical supplement".

Technical data Version 107... XR:

LED: Linear modules 4,000K, CRI > 80, lifetime $L_{90} > 50.000h$ at 25°C ambient temperature, lifetime $L_{80} > 70.000h$ at max. ambient temperature

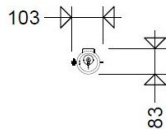
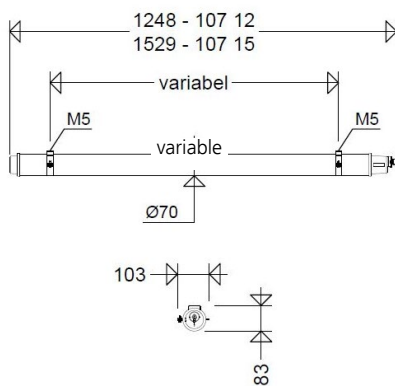
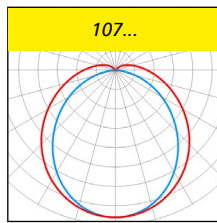
ECG: 220-240V, 50/60Hz, overload and short-circuit protection

Ambient temperature: -20°C up to +40°C

Options:

- 6.500K
- dimmable via „Corridor Mode“ (DIMC), frequent daily switching e.g. via motion detectors, especially at low temperatures (cold stores etc.)
- for low ambient temperatures
- for higher ambient temperatures up to +50°C

- for connection to central power supply unit (ZB) or emergency mains respectively
- with green LED for lighting potato stores
- with built-in through wiring DV 3x1,5mm² bzw. DIMD 5x1,5mm² (see Note)



For vertical installation, please note:

Plug part must face downwards. Through wiring not possible. For Cable looping please use accessory 107 SVDA 3 or 107 SVDA-5 for DIMD.

Product highlights:

- **extremely tight against harmful gases**, hermetically sealed thanks to welding of pipe and end caps as well as a perfectly sealed quick connector. Safe protection of LED and ECG against damage and total failure due to exposure to gas
- dust- and pressure water tight, (IP68, 3m/ 30 min).
- IPX9K-tested (high pressure / steam jet cleaning)
- can also be used in unprotected outdoor areas
- suitable for rooms with increased fire risk ∇
- impact-resistant PMMA tube with **high mechanical strength**
- **homogeneous illumination by using a frosted tube**, no particular light points visible, comfortable perception of light, brilliant glare limitation
- fast connection thanks to **integrated FastConnect quick connector**
- **fast mounting with variable mounting distances** by means of movable stainless steel pipe clamps



Properties, limitations and details for controlling LED-light fittings:
See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
107... XR (Xtreme Resistance)						
10702 0003	107 12L22 XR	15	2.260	151	1 x 36W	2,2
10702 0004	107 15L34 XR	24	3.710	155	1 x 58W	2,6
10702 0005	107 12L42 XR	29	4.370	151	2 x 36W	2,2
10702 0006	107 15L60 XR	42	6.270	149	2 x 58W	2,6
10702 0023	107 12L22 XR DIMD	15	2.260	151	1 x 36W	2,2
10702 0024	107 15L34 XR DIMD	24	3.710	155	1 x 58W	2,6
10702 0025	107 12L42 XR DIMD	29	4.370	151	2 x 36W	2,2
10702 0026	107 15L60 XR DIMD	42	6.270	149	2 x 58W	2,6

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

DIMD versions are compatible with LIMAS Line light management system.



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
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107... XR LW



for use in stables contaminated with ammonia and in agricultural premises

Application:

Stables in agriculture, animal husbandry, fattening and rearing companies etc., rooms with high dust pollution and increased fire risk, e.g. barns, straw and feed stores

etc., areas where the light fittings are exposed to jet and pressurized water, e.g. cleaning with steam jets.

Technical data Version 107... XR LW:

LED: Linear modules 4,000K, CRI > 80, L₈₀ > 50,000h at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short-circuit protection

Ambient temperature: -20°C up to +35°C

Additional advantages:

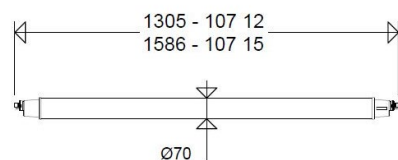
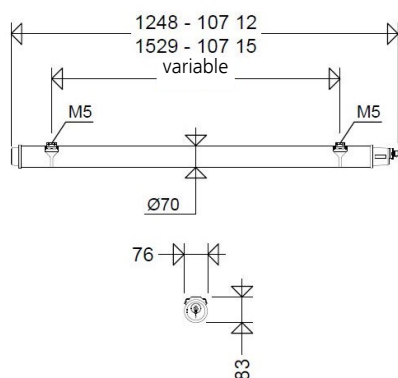
- permanently ammonia-resistant
- flicker-free light for stress avoidance and promotion of animal welfare
- low-glare light through satined tube
- DLG (German Agricultural Society) exam



10703 0014	107 15L34 XR LW	28	3.660	131	1 x 58W	2,6
10703 0015	107 12L42 XR LW	30	3.900	130	2 x 36W	2,2
10703 0016	107 15L60 XR LW	43	5.700	133	2 x 58W	2,6
10703 0024	107 15L34 XR LW DIMD	28	3.660	131	1 x 58W	2,6
10703 0025	107 12L42 XR LW DIMD	30	3.900	130	2 x 36W	2,2
10703 0026	107 15L60 XR LW DIMD	43	5.700	133	2 x 58W	2,6

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

DIMD versions are compatible with LIMAS Line light management system.



Through wiring

The light fittings (PRIMO XR and PRIMO LW) are available with through wiring installed at the factory only. The dimensions of the light fitting change due to the quick plug connection integrated into the connection cap on both sides (see dimension drawing). For the last luminaire in the light band, the socket part on the luminaire must be covered with a locking piece (see accessories / spare parts).

Accessories / Spare Parts

Article no.	Type	
Cable entries		
90278 9005	107 SVDA-3	plug-in connection double connection to looping in/out 3-pole grey
90278 9006	107 SVDA-5	plug-in connection double connection to looping in/out, 5-pole grey for DIM
Locking pieces for luminaires with through-wiring		
90278 9007	107 VS-3	3-pole locking piece grey
90278 9008	107 VS-5	5-pole locking piece grey
Accessories		
90272 9003	107 RO V4A P	stainless steel pipe clamp - 1.457 Mounting set (1 pair)

TUBEO Tubular LED Light Fitting Series 110...

Applications:

Public, commercial and industrial areas which are endangered by water jets, water spray, dusty atmospheres or high mechanical stress (vandalism). Car washes, inspections pits, docks, ships, food industry, slaughter houses, subway and railway stations endangered by vandalism, prisons, car parks, etc..

Design:

Housing: Impact and shatter resistant clear PMMA tube, Ø 100mm.

Fastener: Tubular locking cap made of

stainless steel with foamed gasket, special element for compensation of length expansion.

Reflector: Sheet steel with electric components and frosted cover for glare limitation.

Connecting: 3-pole quick connect IP69K (FastConnect). Plug integrated and internally pre-wired, receptacle included for mains assembly.

Mounting: Supplied with 2 stainless steel pipe clamps.

Technical data:

LED: Linear modules 4,000K, CRI > 80, lifetime $L_{90} > 50.000h$ at 25°C ambient temperature, lifetime $L_{80} > 70.000h$ at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short-circuit protection

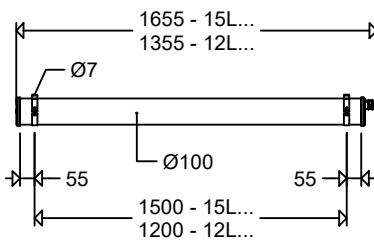
Ambient temperature: -25°C up to see article tables

Options:

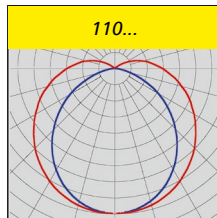
- 6.500K
- PC-tube (4 x IK10/80 Joule) for food industry areas according to „International Featured Standard Food“
- for low ambient temperatures
- increased protection against corrosive atmospheres or harmful gases, version ER
- optics with 60° angle (TB)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- with through wiring up to 3 x 2,5 mm² or up to 5 x 2,5 mm² for DIMD types
- Light Management System LIMAS Line for controlling DIMD light fittings with DALI2 interface

Note:

When installing in a saline atmosphere, please request the special version.



For vertical installation, please note:
Plug part must face downwards. Through wiring not possible. For Cable looping please use accessory 110 SVDA 3.



Product highlights:

- sturdy and extremely rugged tubular light fitting for application in rough environments
- dust- and pressure water tight (IP68, 3m/ 30 min)
- suitable for cleaning with high pressure cleaner (IPX9K)
- optional high-impact resistant polycarbonate tube 4 x IK10 (80 joule min.) for applications in the food industry, areas with a risk of vandalism etc.
- highest efficiency due to use of top-quality ECGs and LED modules
- high colour reproduction CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- homogeneous illumination by using frosted covers, no particular light points visible, comfortable perception of light, brilliant glare limitation
- with Ψ-sign, suitable for rooms with increased fire risk due to deposits of combustible dust and fibrous materials
- FastConnect quick connector - electrical connection without opening the fitting
- flexible mounting with pipe clamps
- future proof by using standardized LED-modules (Zhaga)

Article No.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Amb. temp. max. [°C]	Substitute for ca. *	(without packing material)
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110...

		LED	IP68	IPX9K	IK07				
11000 0003	110 12L22	15	2.390	159	45	1 x 36W	4,4		
11000 0004	110 15L34	21	3.440	164	45	1 x 58W	5,0		
11000 0005	110 12L42	27	4.240	157	35	2 x 36W	4,4		
11000 0006	110 15L60	39	6.160	158	35	2 x 58W	5,0		
11000 0007	110 15L100	67	10.360	155	35	3 x 58W	5,1		

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article No.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Amb. temp. max. [°C]	Substitute for ca. *	(without packing material)
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110... DIMD



11000 0013	110 12L22 DIMD	15	2.390	159	45	1 x 36W	4,4
11000 0014	110 15L34 DIMD	21	3.440	164	45	1 x 58W	5,0
11000 0015	110 12L42 DIMD	27	4.240	157	35	2 x 36W	4,4
11000 0016	110 15L60 DIMD	39	6.160	158	35	2 x 58W	5,0
11000 0017	110 15L100 DIMD	67	10.360	155	35	3 x 58W	5,1

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

DIMD versions are compatible with LIMAS Line light management system.

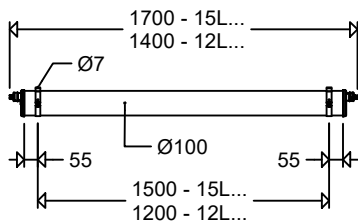
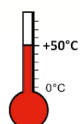
110... H50



for high ambient temperatures up to +50°C

11000 0055	110 12L42 H50	27	4.240	157	50	2 x 36W	4,4
11000 0056	110 15L60 H50	38	6.160	162	50	2 x 58W	5,1

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.



Through wiring

The light fittings are available with through wiring installed at the factory only. The dimensions of the light fitting change due to the quick plug connection integrated into the connection cap on both sides (see dimension drawing). For the last luminaire in the light band, the socket part on the luminaire must be covered with a locking piece (part of the delivery).

Accessories / Spare Parts

Article No.	Type	
90272 9001	110 RO V P	1 pair of pipe clamps, stainless steel
90273 9001	110 036	spare tube PMMA for 110 12L..
90273 9002	110 058	spare tube PMMA for 110 15L..
90273 9003	110 036 PC	spare tube PC for 110 12L..
90273 9004	110 058 PC	spare tube PC for 110 15L..
90049 0002	183 S	hook for chain suspension, stainless steel
90278 9001	110 SVDA-3	splitter connector for in-out wiring on one end
90278 9002	110 SVDA-5	splitter connector for in-out wiring on one end, 5-pole version for DIMD



LED-Sheet Steel Light Fitting Series 190...

Applications:

Industrial, craftsmen and commercial facilities with extreme conditions, aggressive environments (e.g. oil, grease) or high mechanical exposure, paint shops and spray booths (non-hazardous areas).

Design:

Housing: Sheet steel, light grey, powder coated (RAL 7035).

Safety glass: Frameless, clear, internal hinges, tiltable.

Reflector: Aluminium painted, with LED-modules, glare limitation modules and all electrical components screwed to

the glass.

Central locking: Internal, to be opened from outside with 5mm allen key, inner hinges on the opposite side.

Terminal: 5-pole terminal, clamping range 2.5 mm² max.

Cable entries: 3 x M20 or 3 x M25 (2 cable gland and 2 blanking plugs), looping the cable at one side possible.

Mounting:

2 fixing holes Ø 9mm,
Sealing and pressure disks included.
Use mounting screws Ø 6mm.

Technical data:

LED: Line-modules 4,000K; CRI>80, lifetime L₉₀ > 50.000h at 25°C ambient temperature, lifetime L₈₀ > 70,000h at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short circuit protection

Ambient temperature: -20°C up to see table of article

Options:

- with dimming function via DALI2 interface, compatible with LIMAS Line (DIMD) Light Management System
- in stainless steel, powder coated

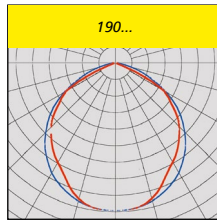
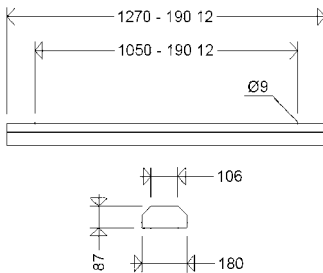
- for connection to group or central battery systems (ZB) or emergency mains respectively

Note:

This light fitting is not suitable for application in areas with permanent high humidity in combination with only short periods of operation, such as sewage or stormwater retention bassins or water treatment plants.

Note:

In case of permanently humid atmosphere please ask for stainless steel housings.



Product highlights:

- extremely flat and robust design
- smooth sheet steel housing without contamination-prone external locking parts
- comfortable central locking system with internal hinges
- reflector and cover in sandwich design to protect the LED-Modules from mechanical or electrostatic damages due to accidental contact
- homogeneous illumination by using glare limitation modules, no particular light points visible, comfortable perception of light, brilliant glare limitation
- high colour rendering CRI > 80, according to the work place guidelines suitable for nearly all branches
- with Ψ-sign, therefore suitable for application in rooms/locations with increased fire risk due to flammable dusts and fibers.
- future-proof due to use of standardized LED-modules (Zhaga)



Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max.[°C]	Substitute for ca. *	Weight [kg] without packing material
19002 0014	190 12L40	1	32	4.330	135	60	1 x 36 / 1 x 58	8,5
19002 0015	190 12L60	1	46	6.200	135	55	2 x 36 / 2 x 58	8,7

190...



* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories / Spare Parts

Article No.	Type	
Spare glass clear		
19001 9002	190 28/54	for 190 12...
Cable entries		
25610 9000	2561	plastic cable gland M20 x 1,5
25730 9000	2573	threaded blanking plug M20x1,5
Mounting accessories		
26000 0004	W 26 P	1 pair wall angle brackets
26000 0002	W 26/30 P	1 pair wall angle brackets 30°
26000 0003	W 26/45 P	1 pair wall angle brackets 45°
90000 0002	15A P	1 pair ceiling brackets, galvanized steel
90032 0002	15AV P	1 pair ceiling brackets, stainless steel

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

LED-Steep roof light fitting Series 185...

Applications:

Industrial, tradesmen's and commercial facilities with extreme conditions, aggressive environments (e.g. oil, grease) or high mechanical exposure, clean rooms, spray booths and spraying rooms (not EX), sand blasting rooms (SSK-versions) etc.

Design:

Housing: Sheet steel, light grey, powder coated (RAL 7035), silicone foam seal
Safety glass: Frameless, clear, hinged, tiltable.

Reflector: Hinged; white painted sheet steel; detachable, with LED-modules and frosted glare limitation modules.

Central locking: Internal, to be opened from outside with 5mm allen key, inner hinges on the opposite side.

Cable entries: 3 x M25 (2 cable gland and 2 blanking plugs), looping the cable at one side possible.

Mechanical installation:

Mounting accessories see spare parts/accessories.

Technical data:

LED: Line-modules 4,000K; CRI>80, ifetime $L_{90} > 50.000h$ at 25°C ambient temperature, lifetime $L_{80} > 70.000h$ at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short circuit protection

Ambient temperature: -20°C up to see table of articles

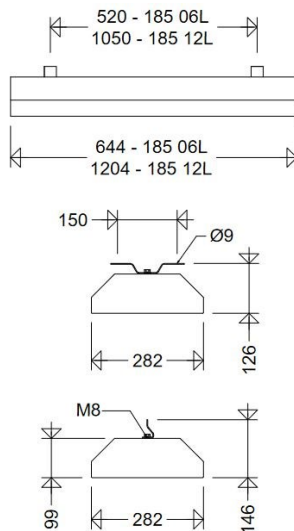
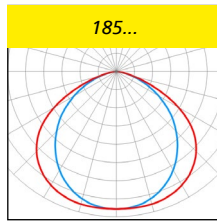
Options:

- with dimming function via DALI2 interface, compatible with LIMAS Line (DIMD) Light Management System
- for high ambient temperatures
- for wide temperature ranges
- for connection to central or group battery system (ZB) or emergency mains respectively
- in stainless steel, powder coated

Note:

This light fitting is not suitable for application in areas with permanent high humidity in combination with only short periods of operation, such as sewage or stormwater retention bassins or water treatment plants.

In such cases we recommend the use of our 107... G2 (PRIMO XR) series.



Product highlights:

- extremely flat and robust design
- smooth housing with all latches inside the housing
- comfortable central locking system with internal hinges
- perfect protection of the LED from mechanical or electrostatic damages through glare limitation elements on top the led
- homogeneous, glarefree illumination with frosted glare limitation elements, no individual light points visible, comfortable perception of light
- high colour rendering CRI > 80, according to the work place guidelines suitable for nearly all branches
- with ∇ -sign, therefore suitable for application in rooms/locations with increased fire risk due to flammable dusts
- retrofittable Frame for Recessed Installation, Dust protection cover and Swivel Arm Mounting System (modular construction)
- inexpensive cable looping possible
- ECG and reflector with LED-modules replaceable by qualified personnel on-site
- Suitability for paint booths LABS-tested according to VDMA24364-C2-L
- 185 12L... Ball-proof tested for use in sports halls
- future-proof due to use of standardized LED-modules (Zhaga)



Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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185...



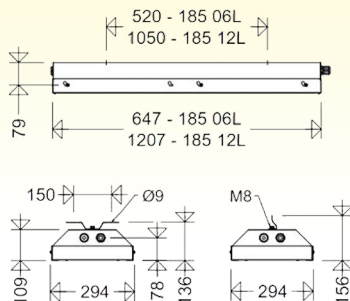
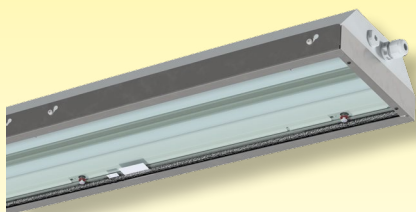
18501 0031	185 06L30	1	22	3.100	141	55	1 x 58W	7,9
18501 0032	185 06L45	1	32	4.660	146	55	2 x 36W	7,9
18501 0033	185 06L60	1	43	6.190	144	45	2 x 58W	7,9
18501 0001	185 12L60	1	43	6.190	144	55	2 x 58W	13,3
18501 0002	185 12L90	2	64	9.310	145	55	3 x 58W	13,8
18501 0003	185 12L120	2	86	12.270	143	45	4 x 58W	13,8

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article no.	Type	Quantity of ECG	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Ambient temperature max. [°C]	Substitute for ca. *	Weight [kg] without packing material
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185... SSK



for blasting rooms and cabins

Applications:

Rooms and cabins where blasting material (sand, glass beads, etc.) is used.

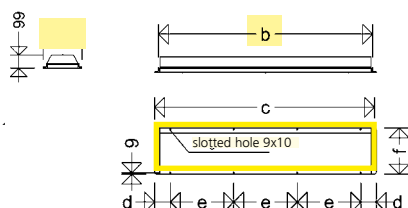
Design:

As standard version 185..., but: protruding, easily replaceable polycarbonate cover in stainless steel frame to protect the safety glass from damage by blasting material. The replacement interval may differ depending on the blasting material used.

18501 0041	185 06L30 SSK	1	22	3.100	141	55	1 x 58W	9,3
18501 0042	185 06L45 SSK	1	32	4.660	146	55	2 x 36W	9,3
18501 0043	185 06L60 SSK	1	43	6.190	144	45	2 x 58W	9,3
18501 0011	185 12L60 SSK	1	43	6.190	144	55	2 x 58W	16,2
18501 0012	185 12L90 SSK	2	64	9.310	145	55	3 x 58W	16,7
18501 0013	185 12L120 SSK	2	86	12.270	143	45	4 x 58W	16,7

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Installation dimensions



Type	a	b	c	d	e	f
EB 82. 06L	302	660	710	55	300	348
EB 82. 12L	302	1224	1270	125	340	348

Frame for Recessed Installation

retrofit possible!

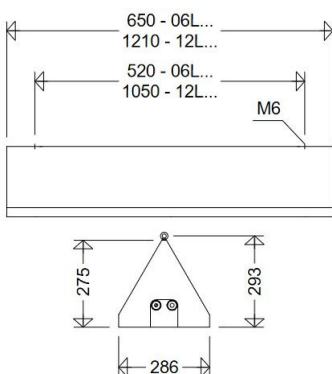
Light fittings of series 185... can be equipped with a frame even at a later stage.

Mounting by means of M5 bolts to the long sides of the housing (see drawing).

Article No.	Type	
18091 0020	EB 82. 06L	frame for narrow housing for 185 06L
18091 0021	EB 82. 12L	frame for narrow housing for 185 12L

Attention: When planning the opening for recess installation please allow additional clearance for the cable glands.

Attention: When installing in insulated ceiling and wall cut-outs, the maximum ambient temperature (Tmax) of the luminaire is reduced by 5 °C!



Mounting with RS 6

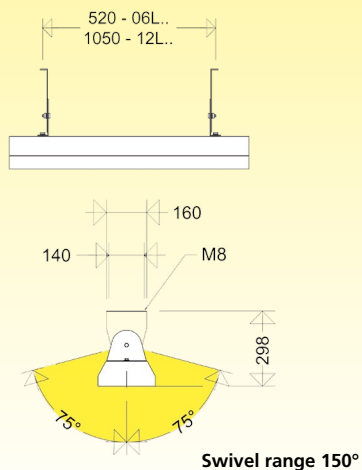
Dust protection cover

retrofit possible!

Light fittings of series 185... series can be equipped (also retrofitted) with a dust protective cover to prevent dust deposits on the light fitting.

It is fastened to the long sides of the light fitting housing with M5 screws. M6 eyebolts (RS 6 P) are supplied for chain suspension.

Article No.	Type	
18093 0001	SSH 185 06L	dust protection cover for 185 06L
18093 0002	SSH 185 12L	dust protection cover for 185 12L



Swivel Arm Mounting System

retrofit possible!

Light fittings of series 185.. can be equipped with a swivel arm mounting system at any time.
The swivel arms are fixed to the suspen-

sion points at the upper side of the housing. Swivel range: $\pm 75^\circ$ (see dimensions in diagram).

Article No.	Type	
18092 0001	SWA 181/182	for all lamp lengths, consisting of 2 swivel brackets and screws M8
18092 0002	SWA 181/182E	for all lamp lengths, consisting of 2 swivel brackets and screws M8 stainless steel



Mounting material

Suspension brackets H8V P



Ceiling brackets 15A P



Wall/ceiling angles WD 45 P



Note:

When using the carrier rail TRS 2000 the mounting accessories for TRS 2000 EX should be used (see section „Ex-light fittings“).

Accessories / Spare Parts

Article No.	Type	
Spare glasses		
82101 9001	821 06L	spare glass for 185 06L
82101 9002	821 12L	spare glass for 185 12L
18090 9027	185 06L PC SSK	PC protective glass (with seal, without longitudinal mounting rail for 185 06L.. SSK
18090 9025	185 12L PC SSK	PC protective glass (with seal, without longitudinal mounting rail for 185 12L.. SSK
Cable entries/cable glands		
25600 9000	2560	plastic cable gland M25 x 1,5
25720 9000	2572	threaded blanking plug M25 x 1,5
Mounting material		
90019 0002	RS 6 P	2 eyebolts M6, galvanized steel
90001 0002	H8V P	2 suspension eyes, stainless steel
90000 0002	15A P	2 ceiling brackets, hot galvanized steel
90032 0002	15AV P	2 ceiling brackets, stainless steel
26000 0005	WD 45 P	2 wall/ceiling angle 45°, steel
26000 0006	WD 45 VP	2 wall/ceiling angle 45°, stainless steel (blasted)

Vandal Proof LED Light Fitting Series 140 ...

Applications:

Subways, railway stations, underground stations, car parks, lavatories, schools, sport stadiums, stairways, bus-stops, prisons etc.,

Design:

Housing: Sheet steel powder-coated, RAL 9016 (traffic white) for indoor areas, or stainless steel (1.4301) for covered outdoor areas. Concealed cable tray and mounting holes on the back, all-round silicone gasket.

Cover: hinged and removable clear polycarbonate diffuser with end caps on the front sides, concealed joint with the cover.

Reflector: aluminium, white painted.

Easy to remove via keyholes, all electrical components mounted, LED-modules with additional covers for glare limitation.

Fasteners: stainless steel, cover and end caps fixed with the housing using safety screws M6 (TORX Tx30 with pin) counter-sunk in the end caps (special fasteners on request).

Electrical connection: 3-pole connection terminal; max. 2.5mm².

Cable entries: 2 x Ø20mm with grommets at the back.

Mounting system: 4 holes 9 mm Ø, hidden at the back of the housing. Sealing and pressure disks can be found inside the fitting. Please use screws Ø 6mm for mounting.

Note:

For applications in seaside areas we do recommend a special version with housings made from high grade stainless steel 1.4571 with an additional powder coating.

Technical data:

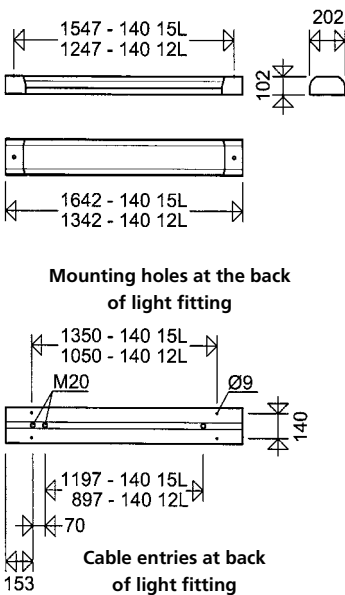
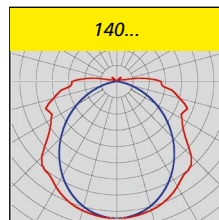
LED: Linear modules 4,000K, CRI > 80, lifetime L₉₀ > 50.000h at 25°C ambient temperature, lifetime L₈₀ > 70,000h at max. ambient temperature

ECG: 220-240V, 50/60Hz, overload and short-circuit protection

Ambient temperature: -20°C bis +35°C

Options:

- 6,500K
- stainless steel housing (1.4571), painted (for seaside areas)
- for higher ambient temperatures
- special paint finish in any RAL colour
- for connection to group or central battery systems (ZB) or emergency mains
- respectively
- with dimming function via DALI2 interface, compatible with LIMAS Line BASIC/PRO (DIMD) Light Management System



Product highlights:

- sturdy version
- rugged housing, end caps and polycarbonate diffuser due to angular design
- polycarbonate diffuser of high impact strength, IK value acc. to EN 50102 > 2 x IK 10 (≥ 40 joule min.)
- homogeneous illumination by using frosted covers (for glare limitation), no particular light points visible, comfortable perception of light, brilliant glare limitation
- safe function of the LED even in case of impacts or vibrations
- ECG and LED-modules replacable by end-user (no single use light fitting)
- future proof by using LED-modules according to Zhaga standard



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Substitute for *	Weight [kg] without packing material
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140 ...



with painted sheet steel housing

14005 0073	140 12L22 SBL	17	2.550	150	1 x 36W	8,8
14005 0074	140 12L42 SBL	31	4.450	144	2 x 36W	8,8
14005 0075	140 15L34 SBL	24	3.710	155	1 x 58W	9,5
14005 0076	140 15L60 SBL	45	6.580	146	2 x 58W	9,5

with stainless steel housing

14005 0003	140 12L22	17	2.550	150	1 x 36W	7,1
14005 0004	140 12L42	31	4.450	144	2 x 36W	7,1
14005 0005	140 15L34	24	3.710	155	1 x 58W	9,2
14005 0006	140 15L60	45	6.580	146	2 x 58W	9,2

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Accessories / Spare Parts

Article No.	Type	
14011 9005	140 036 SBL	Spare glass PC clear with sheet steel end caps, painted RAL9016, for 140 12L..
14011 9006	140 058 SBL	Spare glass PC clear with sheet steel end caps, painted RAL9016, for 140 15L..
14011 9000	140 036	Spare glass PC clear with stainless steel end caps, for 140 12L..
14011 9001	140 058	Spare glass PC clear with stainless steel end caps, for 140 15L..
90063 9000	2511	blanking plug M20

Aluminium Carrier Rails for Continuous Row Installation

Series TRS 2000... and AL...

Application:

For rows of light fittings suspended from the ceiling, allowing an easy installation and assembly.

Design:

Aluminium profiled carrier rails (AL/TRS 2000)

Lengths: 2, 3 or 5 m. Additional covering strip (TRS A) for series TRS.

Mounting accessories:

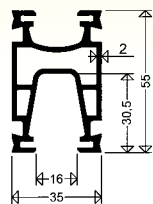
For each length of a light fitting only one suspension point is required.

Connection brackets (TRS V) - to be ordered separately - allow joining the individual rails up to any length wanted. The carrier rails can either be mounted

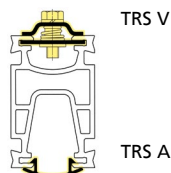
directly to the ceiling by means of the ceiling brackets (183 A / TRS D) or they can be

suspended from the ceiling by means of the hook (183 H / TRS S) in combination with the chain (KP 40) (max. distance of mounting rail elements 2.5m). Perlon pendulums are not suitable for this purpose.

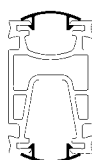
2 or 3 devices (183 L / TRS L) serve for mounting a light fitting to the rail. The suspension devices 183 A / TRS D and 183 H / TRS S as well as the devices 183 L / TRS L are movable in the longitudinal direction of the rails.



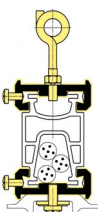
TRS H



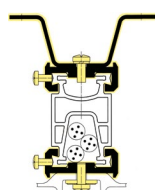
TRS V



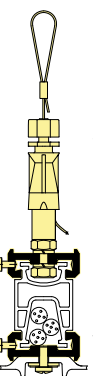
TRS A



TRS S



TRS D

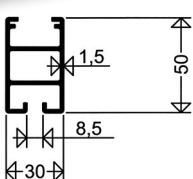


TRS L

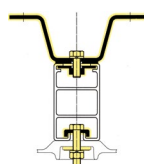
TRS L

TRSF F

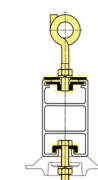
TRS L



183 H



183 A



183 L

183 L

TRS 2000...

aluminium carrier rails

Product highlights:

- universal quick-action mounting system for explosion- and weather-proof light fittings.
- easy to install. (Fasten the suspension devices to the light fitting, push the light fitting with its suspension devices into the carrier rail profile - ready.)
- high carrying force thanks to a new profile structure
- possibility to insert the mains cable into the cable channel
- cover strips to protect against dirt deposit.

Article no.	Type	Product	Weight ca. [kg]
90260 0001	TRS 2000 2 M	Alu-rail 2 m long	3,03
90260 0002	TRS 2000 3 M	Alu-rail 3 m long	4,55
90260 0003	TRS 2000 5 M	Alu-rail 5 m long	7,58
90265 0005	TRS A 1	covering strip, 1 m long	0,04
90265 0006	TRS A 2	covering strip, 2 m long	0,07

Mounting Devices

Article no.	Type	Product
90265 0004	TRS V	stainless steel device (profile) for rail connection
90265 0002	TRS D	stainless steel ceiling bracket
90022 0001	KP 40	chain 1 m long with 2 eyelets for fastening and length compensation
90265 0001	TRS S	stainless steel swing hook for chain
90265 0003	TRS L	luminaire suspension device
90265 0010	TRS H	stainless steel luminaire mounting, for later installation
90265 0011	TRSF F	FastFix quick assembly system, steel, galvanised, with 2m steel cable, rope length infinitely variable

Please note: For mounting the sheet steel light fittings (such as series 185...) please use the mounting accessories of the ex-proof light fittings.

AL...

aluminium carrier rails

Article no.	Type	Product	Weight ca. [kg]
90005 0001	2 M AL	Alu-rail 2 m long	1,6
90005 0002	3 M AL	Alu-rail 3 m long	2,4
90005 0003	5 M AL	Alu-rail 5 m long	3,9

Mounting Devices

Article no.	Type	Product
90265 0004	TRS V	stainless steel device for rail connection
90185 0001	183 A	stainless steel ceiling bracket for ceiling mounting of the carrier rail
90022 0001	KP 40	chain 1 m long with 2 eyelets for fastening and length compensation
90049 0001	183 H	stainless steel hook for chain pendulum
90050 0001	183 L	stainless steel luminaire mounting system complete

Sheet steel Carrier Rails for Continuous Row Installation Series TRS 1000

Application:

For rows of polyester dust-/waterproof light fittings suspended from the ceiling, allowing an easy installation an assembly.

Design:

Profile carrier rails made from sheet steel, galvanized and painted in white on the outside

Lengths:

3065mm (TRS 1000/2) and

4595mm (TRS 1000/3)

Additional covering strip (TRS 1000 A)

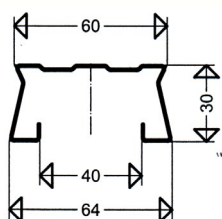
1538mm

Mounting accessories:

Connection brackets (TRS 1000 V) – to be ordered separately – allows joining the

individual rails up to any length required.

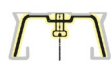
The carrier rails can either be mounted directly to the ceiling by means of the ceiling brackets (TRS 1000 D) or they can be suspended from the ceiling by means of hook (TRS 1000 S) in combination with chain (KP 40) (max. distance of mounting rail elements 2m). 2 or 3 devices (TRS 1000 L) serve for mounting a light fitting to the rail. The carrier rail can be covered with a covering strip (TRS 1000 A) and they can also be closed at the ends with caps (TRS 1000 E).



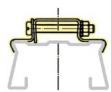
TRS 1000 S



TRS 1000 L



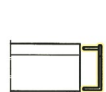
TRS 1000 V



TRS 1000 D



TRS 1000 A



TRS 1000 E

TRS 1000...

Sheet steel carrier rail systems

Article no.	Type	Product
90261 0001	TRS 1000/2	sheet steel carrier rail 3,065mm long
90261 0002	TRS 1000/3	sheet steel carrier rail 4,595mm long

Mounting equipment

Article no.	Type	Product
90264 0001	TRS 1000 V	rail connector
90264 0006	TRS 1000 D	ceiling bracket for mounting the carrier rails
90264 0002	TRS 1000 S	rail suspension device with hook for chain
90022 0001	KP 40	chain 1m long with 2 eyelets for length compensation
90264 0008	TRS 1000 L P	luminaire mounting device (1 pair)
90264 0004	TRS 1000 A	covering strip for the rail 1,538mm
90264 0007	TRS 1000 E P	end cap for the rail (1 pair)

Note:

Most of our light fittings have got two entries at one end of the housing for looping the mains cable. **Thus, the classical through-wiring system is no longer required in many cases.**

The maximum allowed ambient temperature will be reduced by up to 5°C if Through-Wiring operating current exceeds 8A (5x1,5mm²) respectively 10A (5x2,5mm²).

Through-Wiring Systems

One fixed multipole terminal at each end of the housing.
Heat-resistant PVC or silicone cables fixed to the housing with clips.

Through-wiring systems:

1,5mm² up to 10A max.

2,5mm² up to max. 16A max.

In case of loads >8A the maximum permissible ambient temperature is reduced by 5°C.

Light fittings with electronic ballasts do have a high inrush current, hence the maximum permissible number of waterproof LED light fittings with through-wiring system per circuit breaker must be observed.

(see <http://www.schuch.de/en/service/photometric-files>)

For light fittings in continuous row installation we do recommend factory-fitted through-wiring systems.

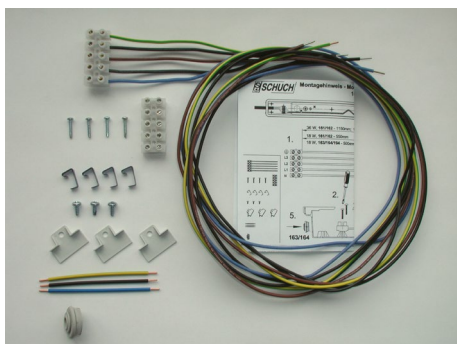
Through-Wiring Systems Installed in the SCHUCH Factory

If through-wiring systems are wanted, we supply our dustproof/waterproof light fittings with standard through-wiring systems: 5x1,5mm² PVC.

5x2,5mm² PVC and Silicone through-wiring systems are available on request.

For retrofitting our retrofit kits must be used.

Through-wiring systems for subsequent installation:



Article no.	Type	Product
Universal retrofit kits, suitable for 161/162/163/164...		
11831 0013	DV/NS P 5x1,5	5x1,5mm ² PVC, 105°C
11831 0022	DV/NS P 5x2,5	5x2,5mm ² PVC, 105°C
11831 0014	DV/NS S 5x1,5	5x1,5mm ² Silicone, 150°C
11831 0024	DV/NS S 5x2,5	5x2,5mm ² Silicone, 150°C
Universal retrofit kits, suitable for 167... G2 LUXANO		
11831 0040	DV/NS P 3x1,5	3x1,5mm ² PVC, 105°C
11831 0041	DV/NS P 3x2,5	3x2,5mm ² PVC, 105°C
11831 0042	DV/NS P 5x1,5	5x1,5mm ² PVC, 105°C
11831 0043	DV/NS P 5x2,5	5x2,5mm ² PVC, 105°C
Retrofit kits for simplified through-wiring by customer with NYM cable up to 2,5mm², can be used for 167... G2 LUXANO		
11831 0044	DV/NS NYM3 167.G2	up to 3x2,5mm ²
11831 0045	DV/NS NYM5 167.G2	up to 5x2,5mm ²
Universal retrofit kits, suitable for 144...		
11831 0030	DV/NS P 5x2,5	5x2,5mm ² PVC, 105°C
11831 0031	DV/NS S 5x2,5	5x2,5mm ² Silicone, 150°C

Dustproof/Waterproof
Light Fittings



High Bay Fittings

Perfect solutions for various requirements

The company has produced light fittings for applications in workshops, industrial, processing and storage areas even in the beginning of its history. When high-pressure lamps appeared, this product line had become one of the main segments in the whole range. As in other manufacturing areas, SCHUCH design engineers covered more and more application fields with severe operating conditions. As a result, along with standard series, many new special versions have been developed over the time. Such special versions have turned into industry solutions due to which SCHUCH is known far beyond Germany by today.

Even in the most severe conditions, such as chlorine electrolysis plants, galvanizing plants or compost systems, SCHUCH light fittings demonstrate reliable operation and withstand the most aggressive environments.

New industrial LED light fittings feature, in particular, excellent temperature control, which is the basic condition of a long service life and one of the most important quality factors for a LED light fitting.

STANDARD OR CUSTOMIZED SOLUTIONS? SCHUCH OFFERS BOTH.

1926

Workplace lights, ceiling and pendant lights up to 1,000 W as well as deep, semi-deep and diagonal spotlights up to 2,000 W for illuminating workshops are part of the product range early in the company's history.

1949

Production of the first industrial reflector-light fitting for mercury vapor lamps.

1975

Production of the first industrial high bay light fitting made of fiberglass-reinforced polyester for application in very aggressive environment, such as in galvanizing plants, compost systems, steeping plants, etc.

1998

Application of inductive lamp systems with a minimum service life of 60,000 hours. This allowed using high bay light fittings in electrical high-current and strong-magnetic-field applications, such as chlorine electrolysis plants.

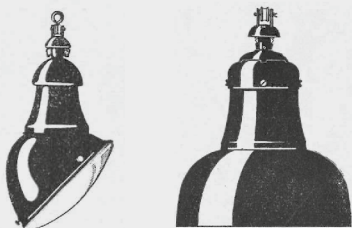
2001

Introduction of the first high bay light fitting having a specific triangular shape, which is designed for dust-loaded and polluted environments with a high ambient temperature and high fire hazard.

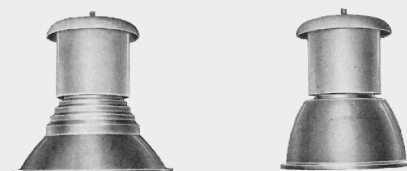
2003

The range of high bay light fittings has been extended significantly by adding special versions for food industry, blast rooms, applications with high ambient temperatures up to +90°C and many others.

Schrägstrahler / Breitstrahler
Baureihe 290... von 1936



Industrie-Reflektorleuchten
Baureihe 30.. von 1971



High Bay Fittings

Product	Series	Page
LIMAS Air		106-107
Smart lighting control for high-bay luminaires		
<i>with 2 point mounting</i>		
DUEVO MID	3301/3302...	108-110
... for use in galvanising plants	3302... V	112
DUEVO XL MID	3305...	113-114
<i>with 1 point mounting</i>		
TRIANO disc	3410/3420/3430...	115-116
... Smart lighting control for high-bay	LIMAS Air	116
TRIANO Generation 2	3401/3402... G2	117-118
... Smart lighting control for high-bay	LIMAS Air	118
TRIANO L	3403...	119-120
... Smart lighting control for high-bay	LIMAS Air	120
TRIANO XL	3405...	121-122
... Smart lighting control for high-bay	LIMAS Air	122
Floodlights		
... for sand/glass blasting areas and cabins		
FOCO L	7700... SSK	123-124
FOCO XL	7800... SSK	123-124

LED TECHNOLOGY

2008

LED reflector light fittings are the first LED high bay light fittings in the product program.

2013

SCHUCH introduces the DUEVO. The first exclusively for LED applications developed LED High bay light fitting with 2 point mounting.

2015

TRIANO Series for 1-point suspension mounting has been added to the range of high bay LED light fittings.

2017/2019

The range is continuously expanded. TRIANO L and XL and DUEVO XL for halls with large mounting heights follow.

2019/20

SCHUCH intensely investigates the influence of harmful gases on LED lights. The RESISTANT luminaire range develops from this.

2020/2021

Introduction of the new TRIANO disc high-bays.

2022

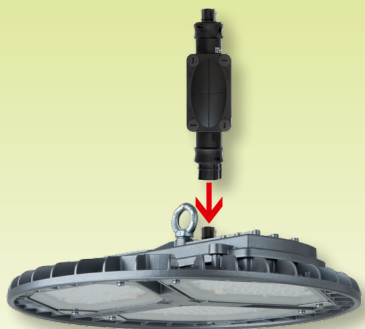
With the LIMAS Air light management system, all SCHUCH high-bay luminaires become smart in no time at all.



NEW

LIMAS Air

Smart lighting control for high-bay luminaires



Whether replacing an existing system or installing a new one, with the LIMAS Air lighting management system you can now make your lighting system smart in no time at all and bring it to a new level. Extremely simple, fast and without additional installation effort.

With the LIMAS Air radio module, which is connected to the luminaire via FastConnect quick plug-in connection, every DIMD high bay luminaire from SCHUCH becomes a smart luminaire. Commissioning is also child's play and extremely convenient with the free smartphone app. Based on CASAMBI® radio technology, you control your lighting system with low power consumption and a long range, whereby the participants are connected and communicate with each other via a self-organised mesh network. Up to 250 luminaires in a system can be controlled and regulated by sensors specially developed for the industry. From simple switching and dimming to complex lighting scenes, everything can be implemented in the simplest way.



Product highlights:

- can be used with all SCHUCH high-bay luminaire series
- simple installation without tools and without additional installation effort (**FastConnect plug-in system**)
- convenient configuration and control via Bluetooth using free smartphone app (Android and iOS) and wall push-button
- up to 250 luminaires can be controlled in one system
- significant reduction of operating costs and CO₂ reduction
- maximum failure safety thanks to autarkic, self-healing mesh network. If one luminaire fails, the other luminaires automatically reconnect via the mesh network
- Radio module can be replaced without tools thanks to FastConnect plug connection
- Version with cable for flexible positioning of the radio module in case of space problems
- extensive portfolio of sensors and actuators
- no gateway and no internet connection required

LIMAS Air FM



LIMAS Air FM MK



Radio module

Article No.	Type	
90547 9001	LIMAS Air FM	CASAMBI® radio module with FastConnect quick-connector for controlling DIMD luminaires
90547 9002	LIMAS Air FM MK	CASAMBI® radio module with FastConnect quick-connector and 1m cable



System components

LIMAS Air BM/DS IR LPH max. 14m



LIMAS Air BM/DS IR LPH max. 2,2m



LIMAS Air TAST INTER UP max. 4 KONT



LIMAS Air DALI PS/C



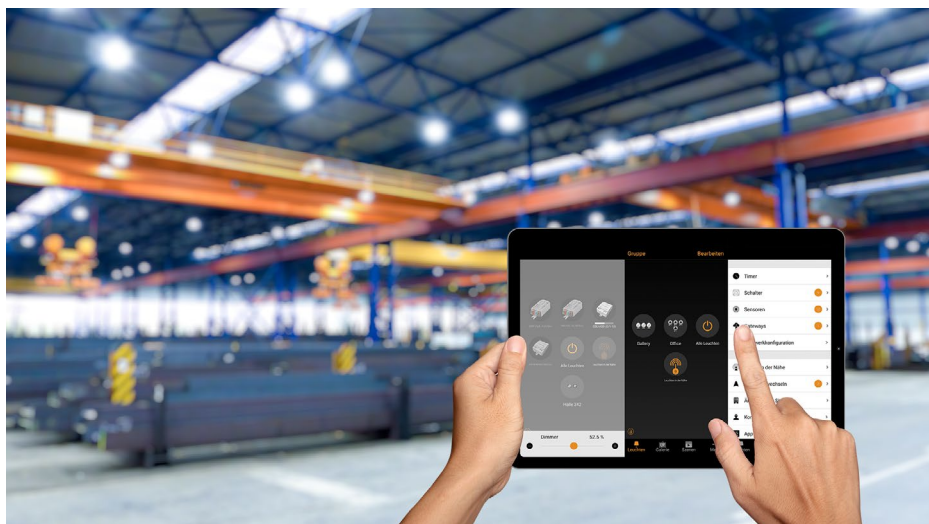
LIMAS Air TAST UP max. 4 KONT



RFL LIMAS Air HUB



Art.-Nr.	Type	
90547 9005	LIMAS Air BM/DS IR LPH max. 14m	Motion and light sensor for a mounting height of max. 14m and a detection area of up to 28m diameter.
90547 9006	LIMAS Air BM/DS IR LPH max. 12m	Motion and light sensor for a mounting height of max. 12m and a detection area of max. 3m x 15m.
90547 9007	LIMAS Air BM/DS IR LPH max. 20m	Motion and light sensor for a mounting height of max. 20m and a detection area of max. 5m diameter.
90547 9008	LIMAS Air BM/DS IR LPH max. 2,2m	Motion and light sensor for a mounting height of max. 2.2m and a detection area of max. 5m diameter.
90547 9009	LIMAS Air TAST INTER UP max. 4 KONT	Push-button interface for connecting up to 4 analogue push-button contacts. Intended for mounting in a flush-mounted box.
90547 9010	LIMAS Air DALI PS/C	Radio module with DALI power supply and broadcast control of up to 60 EVGs (total current 120mA). Power supply 230V.
90547 9011	LIMAS Air TAST UP max. 4 KONT	Battery-free 4-fold „EnOcean“ wireless pushbutton. When the pushbutton is pressed, current is generated to supply the pushbutton electronics.
90547 9012	RFL LIMAS Air HUB	Zhaga book 18 (for RFL) radio module, DALI and DT8 (Tunable white) capable. Max. DALI current 40mA. Can control up to 4 groups.





DUEVO MID

LED High Bay Fitting

Series 3301/3302...

Applications:

Production areas and warehouses, cool storage facilities, walkways in shelf areas, driveways etc.

Design:

Two versions are available: 1 (3301...) or 2 (3302...) LED-segments.

Housing: Die-cast aluminum, DB 702 (mica-iron paint, grey). LED-segment(s) with LED modules, optics behind tempered safety glass (IK08). ECG segment with integrated electronic control gear, prewired on terminals.

Light distribution: Without optics wide beam, with optics wide (B), narrow-wide (TB) or narrow beam (T), respectively oval optics (TO) for illumination of aisles in rack areas.

Entries: 1 gland and 1 blind plug M25 x 1,5.

Mounting: 4 eyelets M6 or see accessories/ spare parts.

Technical Data:

LED module: Complying Zhaga, 4,000K, CRI > 80, lifetime $L_{80} > 100,000h$ at 25°C ambient temperature, lifetime $L_{70} > 100,000h$ at max. ambient temperature
ECG: 220-240V, 50/60Hz, Surge voltage resistance 4kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): via 230V control input. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Further dimming levels possible.

Digital dimming with DALI interface (DIMD) compatible with LIMAS Line and LIMAS Air Light Management System in combination with a FastConnect quick connector.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -20°C up to +50°C / +60°C

Options:

- 5,000K, light colour 850
- PMMA cover frosted (C) for glare limitation
- for low ambient temperatures down to -40°C (T40)
- for high ambient temperatures up to +80°C (H80)
- increased (ER) or high (HR) protection against corrosive atmospheres or harmful gases
- wireless Light Management System LIMAS Air
- with green LED for lighting potato stores

– Version with additional threaded holes:

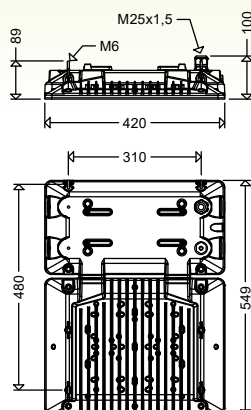
- for swivel arm brackets (swivel range 0° - 45°)
- ball sports proof version with special ceiling fixings for sport halls

- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)
- cable looping (RR)
- various additional cable entries on ceiling and front side
- FastConnect for electrical connection without accessing the internal terminal block

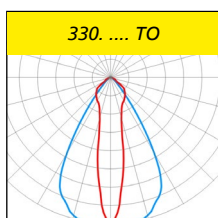
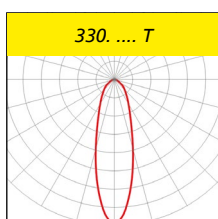
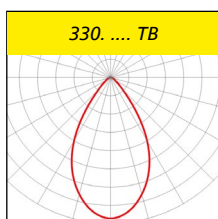
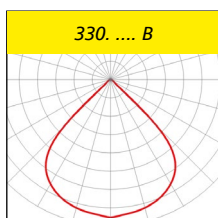
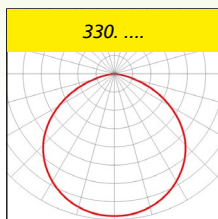
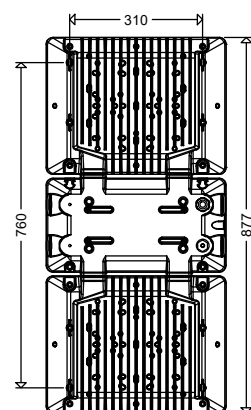
Product highlights:

- high system lifetime of up to 100,000h at maximum ambient temperature
- optimized thermal management due to direct mounting of the LED modules to the housing and separate housings for ECG- and LED-modules, huge heat sink with excellent heat dissipation
- high quality ECG with overload and short circuit protection
- uniform illumination due to the „Multi-Layer Technology“ i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping. No dark zones if any single LED would fail. The uniformity of the illumination is kept.
- colour rendering index CRI > 80
- variable electrical installation methods due to max. 8 cable entries (see options)
- ⚡-symbol, suitable for rooms with increased fire risk
- future proof by using standardized LED-modules (Zhaga)

3301...



3302...



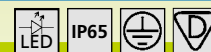
Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Quantity of ECG	Dimmable	Wide beam	Narrow wide beam	Narrow beam	Weight [kg] (without packing material)	Power consumption [W]	Luminous flux [lm]	Light output [lm/W]	Substitute for *

3301...



... for ambient temperatures up to +50°C

1 LED segment

33010 0001	3301 L210	1	•				8,9
33010 0002	3301 L210B	1	•				9,2
33010 0013	3301 L210TB	1		•			9,2
33010 0003	3301 L210T	1			•		9,2
33010 0014	3301 L210TO	1			•		9,2
33010 0200	3301 L210 DIMD	1	•	•			8,9
33010 0201	3301 L210B DIMD	1	•	•			9,2
33010 0212	3301 L210TB DIMD	1	•		•		9,2
33010 0202	3301 L210T DIMD	1	•		•		9,2
33010 0213	3301 L210TO DIMD	1	•		•		9,2

135 20.200 150 HIE 400

... for ambient temperatures up to +60°C

33010 0004	3301 L110 H60	1	•				8,9
33010 0006	3301 L110B H60	1	•				9,2
33010 0015	3301 L110TB H60	1		•			9,2
33010 0008	3301 L110T H60	1			•		9,2
33010 0203	3301 L110 DIMD H60	1	•	•			8,9
33010 0205	3301 L110B DIMD H60	1	•	•			9,2
33010 0214	3301 L110TB DIMD H60	1	•		•		9,2
33010 0207	3301 L110T DIMD H60	1	•		•		9,2
33010 0005	3301 L160 H60	1	•				8,9
33010 0007	3301 L160B H60	1	•				9,2
33010 0016	3301 L160TB H60	1		•			9,2
33010 0009	3301 L160T H60	1			•		9,2
33010 0204	3301 L160 DIMD H60	1	•	•			8,9
33010 0206	3301 L160B DIMD H60	1	•	•			9,2
33010 0215	3301 L160TB DIMD H60	1	•		•		9,2
33010 0208	3301 L160T DIMD H60	1	•		•		9,2

67 10.800 161 HME 250

96 15.000 156 HIT 250/HME 400

3302...



... for ambient temperatures up to +50°C

2 LED segments

33020 0001	3302 L420	2	•				14,5
33020 0002	3302 L420B	2	•				14,6
33020 0013	3302 L420TB	2		•			14,6
33020 0003	3302 L420T	2			•		14,6
33020 0014	3302 L420TO	2			•		14,6
33020 0200	3302 L420 DIMD	2	•	•			14,5
33020 0201	3302 L420B DIMD	2	•	•			14,6
33020 0212	3302 L420TB DIMD	2	•		•		14,6
33020 0202	3302 L420T DIMD	2	•		•		14,6
33020 0213	3302 L420TO DIMD	2	•		•		14,6

270 40.400 150 2 x HIE 400

... for ambient temperatures up to +60°C

33020 0004	3302 L220 H60	2	•				14,5
33020 0006	3302 L220B H60	2	•				14,6
33020 0015	3302 L220TB H60	2		•			14,6
33020 0008	3302 L220T H60	2			•		14,6
33020 0203	3302 L220 DIMD H60	2	•	•			14,5
33020 0205	3302 L220B DIMD H60	2	•	•			14,6
33020 0214	3302 L220TB DIMD H60	2	•		•		14,6
33020 0207	3302 L220T DIMD H60	2	•		•		14,6
33020 0005	3302 L320 H60	2	•				14,5
33020 0007	3302 L320B H60	2	•				14,6
33020 0016	3302 L320TB H60	2		•			14,6
33020 0009	3302 L320T H60	2			•		14,6
33020 0204	3302 L320 DIMD H60	2	•	•			14,5
33020 0206	3302 L320B DIMD H60	2	•	•			14,6
33020 0215	3302 L320TB DIMD H60	2	•		•		14,6
33020 0208	3302 L320T DIMD H60	2	•		•		14,6

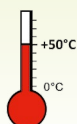
134 21.600 161 HIE 400

192 30.000 156 HIT 400

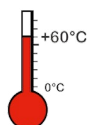
* This date is a rough guideline. In individual cases a lighting calculation is required.

High Bay
Fittings

3301...

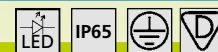


3302...



Article no.	Type	Quantity of ECG	Dimmable	Wide beam	Narrow wide beam	Narrow beam	Weight [kg] (without packing material)	Power consumption [W]	Luminous flux [lm]	Light output [lm/W]	Substitute for *
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3301/3302... IFS



IFS Food/BRC/VDMA/HACCP

SCHUCH Light Fittings designed for food and beverage industry applications are in accordance with IFS Food/BRC/VDMA standards. They can be operated without restrictions in operations that must fulfill the HACCP Concept.

for application in food industry areas

Applications:

Production halls in the food industry, locations which come under the requirements of the IFS Food (International Featured Standard, Food), BRC or HACCP, e.g. manufacture of food packaging.

Design:

With clear PC cover instead of the flat safety glass.

... for ambient temperatures up to +50°C

1 LED segment

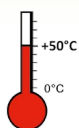
33010 0010	3301 L210 IFS	1	•			8,9
33010 0011	3301 L210B IFS	1	•			9,2
33010 0017	3301 L210TB IFS	1		•		9,2
33010 0012	3301 L210T IFS	1			•	9,2
33010 0209	3301 L210 DIMD IFS	1	•	•		8,9
33010 0210	3301 L210B DIMD IFS	1	•	•		9,2
33010 0216	3301 L210TB DIMD IFS	1	•		•	9,2
33010 0211	3301 L210T DIMD IFS	1	•		•	9,2

135	20.200	150	HIE 400
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2 LED segments

33020 0010	3302 L420 IFS	2	•			14,5
33020 0011	3302 L420B IFS	2	•			14,6
33020 0017	3302 L420TB IFS	2		•		14,6
33020 0012	3302 L420T IFS	2			•	14,6
33020 0209	3302 L420 DIMD IFS	2	•	•		14,5
33020 0210	3302 L420B DIMD IFS	2	•	•		14,6
33020 0216	3302 L420TB DIMD IFS	2	•		•	14,6
33020 0211	3302 L420T DIMD IFS	2	•		•	14,6

270	40.400	150	2 x HIE 400
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Optional also available for ambient temperatures up to +60°C



3301... ER



for use in cattle and horse stables

Applications:

High stables with greater mounting heights from approx. 6 m.

Design:

With stainless steel eye bolts.

Attention: Fastening ropes, ceiling brackets and wall brackets must be made of stainless steel (on demand).

33010 0600	3301 L210 ER	1	•			8,0
33010 0602	3301 L210B ER	1	•			8,1
33010 0603	3301 L210TB ER	1		•		8,1

135	20.200	150	HIE 400
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3301... LW



for use in pig stalls

Applications:

High stables with greater mounting heights from approx. 6 m as well as environments with high pollution.

Design:

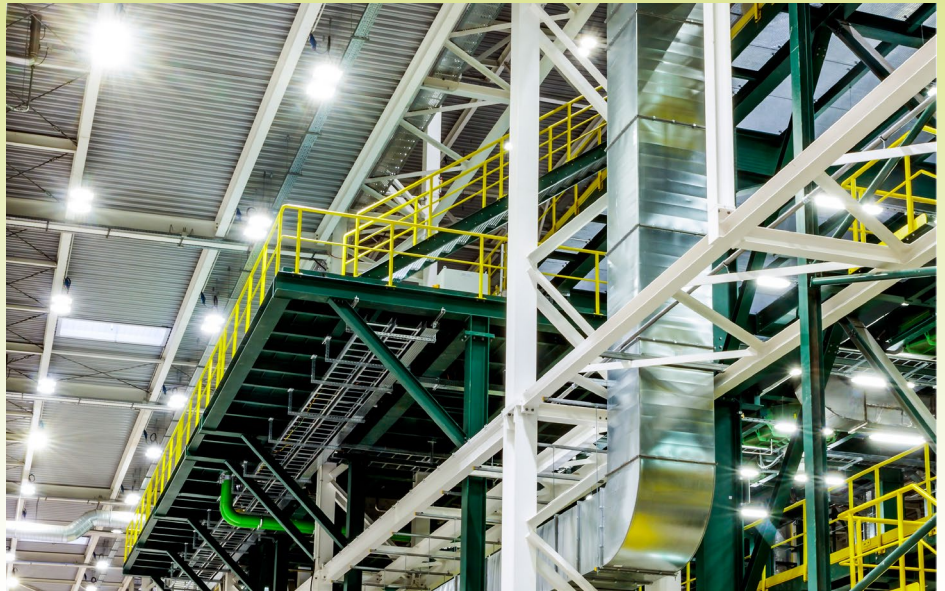
Modified for high protection against ammonia and other corrosive atmospheres or harmful gases.

Attention: Fastening ropes, ceiling brackets and wall brackets must be made of stainless steel (on demand).

33010 0800	3301 L210 LW	1	•			8,0
33010 0801	3301 L210B LW	1	•			8,1
33010 0802	3301 L210TB LW	1		•		8,1

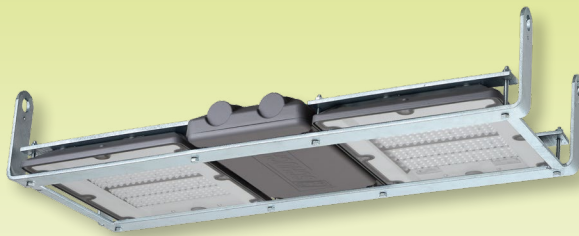
135	20.200	150	HIE 400
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* This date is a rough guideline. In individual cases a lighting calculation is required.



Accessories / Spare Parts

Article no.	Type	
33001 9001	3301/010	spare safety glass for 1 LED segment
33001 9006	3301/010 IFS	PC cover for 1 LED segment, Version IFS
33001 9010	3301/010 C	PMMA-cover, frosted for glare limitation for 1 LED segment
25600 9000	2560	plastic gland M25x1,5
25720 9000	2572	plastic plug M25x1,5
33001 9004	3301/3302 Y P	1 pair of Y-ropes, (2-point-mounting)
33001 9002	3301/3302 D	1 pair of brackets for direct ceiling mounting ¹⁾
33001 9013	3301/3302 SD	vibration absorbing suspension device ¹⁾
¹⁾ Version Sheet Steel painted. Optional available in stainless steel painted.		



DUEVO MID

LED High Bay Fitting for use in galvanising plants

Series 3302... V

Applications:

Specially developed version for use in galvanising plants.

Design:

Housing: Die-cast aluminum, DB 702 (mica-iron paint, grey).

LED-segments with LED modules, optics behind tempered safety glass (IK08).

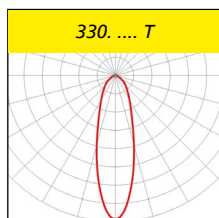
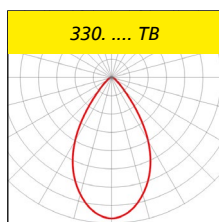
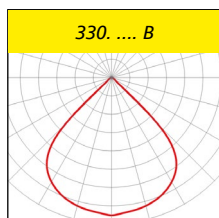
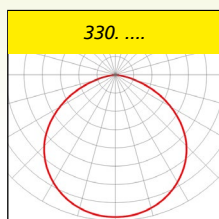
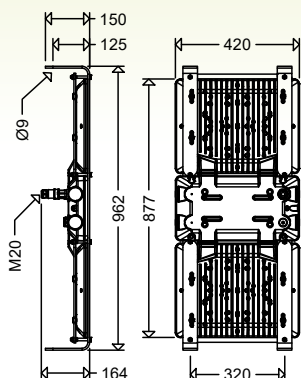
ECG segment with integrated electronic control gear, prewired on terminals.

Robust supporting frame with angle profile.

Light distribution: Wide beam without optic, with optics wide (B), narrow-wide (TB) or narrow beam (T).

Connection: Preinstalled 3-pole (DIMD 5-pole) quick-connector (**FastConnect**), plug mounted to the housing, socket included.

Mounting: 4-point suspension.



Technical Data:

LED module: Complying Zhaga, 4,000K, CRI > 80, lifetime L₈₀ > 100,000h at 25°C ambient temperature, lifetime L₇₀ > 100,000h at max. ambient temperature
ECG: 220-240V, 50/60Hz, Surge voltage resistance 4kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Digital dimming with DALI interface (DIMD) compatible with LIMAS Line and LIMAS Air Light Management System.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -40°C up to +50°C

Options:

– 5,000K, light colour **850**

– for high ambient temperatures up to +60°C (H60) or +70°C (H70)

– wireless Light Management System LIMAS Air

Product highlights:

- extremely robust special-version
- high system lifetime of up to 100,000h at maximum ambient temperature
- high quality ECG with overload and short circuit protection
- optimized thermal management due to direct mounting of the LED modules to the housing and separate housings for ECG- and LED-modules, huge heat sink with excellent heat dissipation
- uniform illumination due to the „Multi-Layer Technology“ i.e. every individual LED illuminates the whole surface, the light curves of the individual LED are overlapping. No dark zones if any single LED would fail. The uniformity of the illumination is kept.
- **FastConnect quick-connector** - electrical connection without opening the fitting
- -symbol, suitable for rooms with increased fire risk
- future proof by using standardized LED-modules (Zhaga)



Article no.	Type	Quantity of ECG	Wide beam	Narrow wide beam	Narrow beam	Weight [kg] (without packing material)	Power consumption [W]	Luminous flux [lm]	Light output [lm/W]	Substitute for *
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3302... V

33020 0100	3302 L420 V	2	•			23,9				
33020 0101	3302 L420B V	2	•			24,0				
33020 0102	3302 L420TB V	2		•		24,0				
33020 0103	3302 L420T V	2			•	24,0				

* This data is a rough guideline. In individual cases a lighting calculation is required.

Accessories / Spare Parts

Type	Article no.	
33001 9001	3301/010	spare safety glass for 1 LED-segment

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



DUEVO XL MID LED High Bay Fitting Series 3305...

Applications:

Production areas and warehouses, maintenance and assembly shops, cool storage facilities, walkways in rack areas, hardware stores etc.

Design:

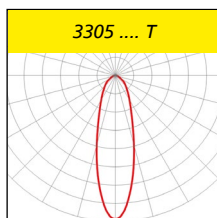
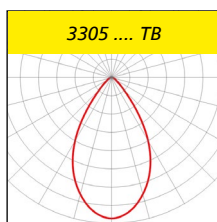
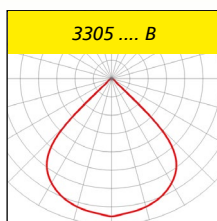
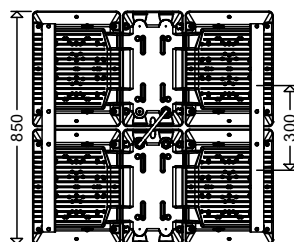
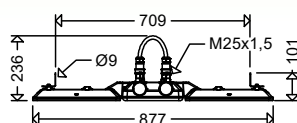
Housing: Die-cast aluminum, DB 702 (mica-iron paint, grey). **4 segments** with LED module, optics behind tempered safety glass (IK08). **2 ECG segments** with integrated electronic control gear, prewired on terminals.

Light distribution: With optics wide (B), Narrow-wide (TB) or narrow beam (T).

Entries: 1 gland and 1 blind plug M25 x 1,5.

Mounting: On angle profile with 4 holes Ø 9mm at a distance of 300mm, see accessories.

Delivery status: Multi-part



Technical Data:

LED module: Complying Zhaga, 4,000K, CRI > 80, lifetime L₈₀ > 100,000h at 25°C ambient temperature, lifetime L₇₀ > 100,000h at max. ambient temperature

ECG: 220-240V, 50/60Hz, Surge voltage resistance 4kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): via 230V control input. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Further dimming levels possible.

Digital dimming with DALI interface (DIMD) compatible with LIMAS Line and LIMAS Air Light Management System in combination with a FastConnect quick connector.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -25°C up to +50°C / +60°C.

Options:

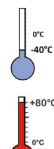
– 5,000K, light colour 850

– PMMA cover frosted (C) for glare limitation

– for low ambient temperatures down to -40°C (T40)

– for high ambient temperatures up to +80°C (H80)

– increased (ER) or high (HR) protection against corrosive atmospheres or harmful gases



– wireless Light Management System LIMAS Air

– for connection to group or central battery systems (ZB) or emergency mains respectively

– additional overvoltage protection (OP)

– cable looping (RR)

– various additional cable entries on ceiling and front side

– **FastConnect quick-connector** for electrical connection without accessing the internal terminal block.

Product highlights:

- high system lifetime of up to 100.000h at maximum ambient temperature
- efficient substitute for conventional high pressure lamps up to HME 1000W or 2 x HIT 400W
- high quality ECG with overload and short circuit protection
- optimized thermal management due to direct mounting of the LED modules to the housing and separate housings for ECG- and LED-modules, huge heat sink with excellent heat dissipation
- uniform illumination due to the „Multi-Layer Technology“ i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping. No dark zones if any single LED would fail. The uniformity of the illumination is kept.
- colour rendering index CRI > 80
- variable electrical installation methods due to max. 8 cable entries (looping in/out at one end on demand)
- ⚡-symbol, suitable for rooms with increased fire risk
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

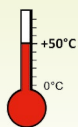
All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Quantity of ECG	Dimmable	Wide beam	Narrow wide beam	Narrow beam	Weight [kg] (without packing material)	Power consumption [W]	Luminous flux [lm]	Light output [lm/W]	Substitute for *
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3305...



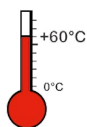
... for ambient temperatures up to +50°C



33050 0050	3305 L840B	4	•				30,3
33050 0058	3305 L840TB	4		•			
33050 0051	3305 L840T	4			•		
33050 0200	3305 L840B DIMD	4	•	•			
33050 0208	3305 L840TB DIMD	4	•		•		
33050 0201	3305 L840T DIMD	4	•		•		

540	80.800	150	2 x HIT 400 1 x HME 1000
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... for ambient temperatures up to +60°C



33050 0052	3305 L440B H60	4	•				30,3
33050 0059	3305 L440TB H60	4		•			
33050 0054	3305 L440T H60	4			•		
33050 0202	3305 L440B DIMD H60	4	•	•			
33050 0209	3305 L440TB DIMD H60	4	•		•		
33050 0204	3305 L440T DIMD H60	4	•		•		

268	43.200	161	2 x HIT 250 HME 400
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33050 0053	3305 L640B H60	4	•				30,3
33050 0060	3305 L640TB H60	4		•			
33050 0055	3305 L640T H60	4			•		
33050 0203	3305 L640B DIMD H60	4	•	•			
33050 0210	3305 L640TB DIMD H60	4	•		•		
33050 0205	3305 L640T DIMD H60	4	•		•		

384	60.000	156	2 x HIT 400 1 x HME 1000
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3305... IFS



for application in food industry areas

Applications:

Production halls in the food industry, locations which come under the requirements of the IFS Food (International Featured Standard, Food), BRC, or HACCP, e.g. manufacture of food packaging.

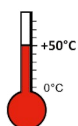
Design:

With clear PC cover instead of the flat safety glass.

Optional also available for ambient temperatures up to +60°C



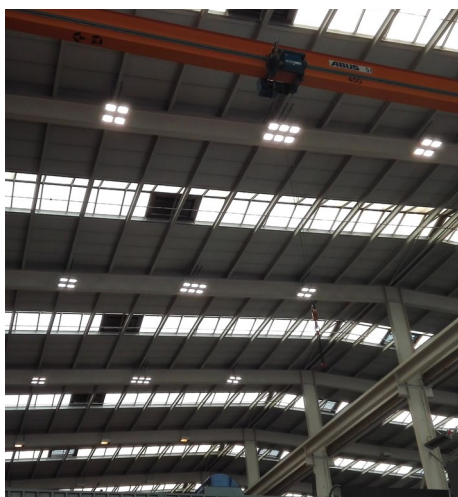
... for ambient temperatures up to +50°C



33050 0056	3305 L840B IFS	4	•				26,7
33050 0061	3305 L840TB IFS	4		•			
33050 0057	3305 L840T IFS	4			•		
33050 0206	3305 L840B DIMD IFS	4	•	•			
33050 0211	3305 L840TB DIMD IFS	4	•		•		
33050 0207	3305 L840T DIMD IFS	4	•		•		

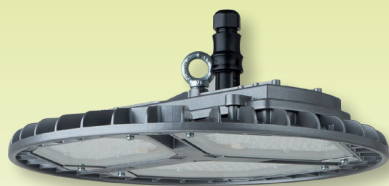
540	80.800	150	2 x HIT 400 1 x HME 1000
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* This date is a rough guideline. In individual cases a lighting calculation is required.



Accessories / Spare Parts

Article no.	Type	
33001 9001	3301/010	spare safety glass for 1 LED-segment
33001 9006	3301/010 IFS	PC cover without optics for 1 LED-segment for versions IFS
33001 9010	3301/010 C	PMMA-cover, frosted for glare limitation for 1 LED-segment
25600 9000	2560	plastic gland M25x1,5
25720 9000	2572	plastic plug M25x1,5
33001 9012	3305 Y P	1 pair of Y-ropes, (2-point-mounting)



TRIANO *disc* LED High Bay Fitting Series 3410/3420/3430...

Applications:

Production and storage halls in trade and industry, maintenance halls, assembly plants, cold rooms, cold stores, hardware stores, rack aisles in warehouses, etc.

Design:

Robust die-cast aluminum body with cooling fins and integrated ECG housing. 1-3 LED-modules with flat safety glasses, Impact resistance IK09. Versions **B**, **TB** or **T** with PC-cover and incorporated optics.

All case parts powder coated in DB 702, smooth, matt.

Light distribution: Without optics wide beam, with optics wide (B), narrow-wide (TB) or narrow beam (T).

Connection: 3-pole (DIMD 5-pole) quick-connector (**FastConnect**), plug mounted to the ECG-housing, socket included.

Mounting: 1-point suspension, eyelet included.

Delivery status:
1 part, ready for immediate use.

Technical Data:

LED module: 5,000K, CRI > 80, lifetime L_{80} > 100,000h at 25°C ambient temperature, lifetime L_{80} > 80,000h at max. ambient temperature

ECG: 220-240V, 50/60Hz, Surge voltage resistance 4kV, overload and short circuit protection.

On request, the luminaires are also available with the following configurations:

Digital dimming with DALI interface (DIMD) compatible with LIMAS Line and LIMAS Air Light Management System.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -20°C up to +45°C/+50°C

Options:

- 4.000K, light-colour **840**
- for connection to group or central battery systems (ZB) or emergency mains respectively (100% luminous flux in emergency mode)
- ball sports proof version (only Series 3420)

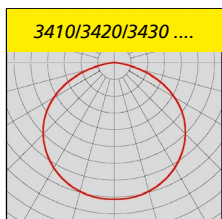
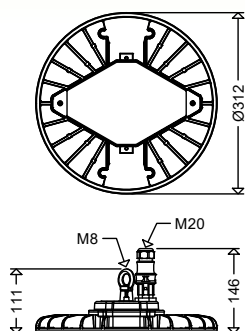


- PC cover for versions without optics, for use in food areas (IFS Food); (-6% Luminous flux)
- PMMA cover with prismatic structure to limit glare (20% lower luminous flux)
- with swivel bracket for ceiling or wall mounting

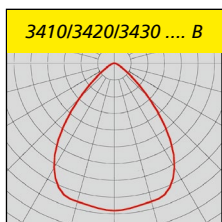
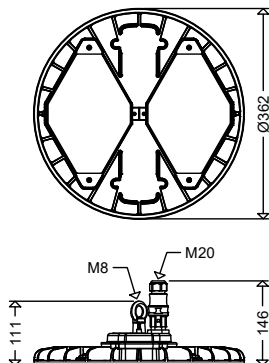
Product highlights:

- fast mounting and commissioning due to 1-point suspension and FastConnect quick-connector
- highly efficient up to 161 lm/W
- Excellent thermal management through cooling fin structure and direct connection of the LED modules to the housing. Huge heat sink, excellent heat dissipation, excellent convection.
- high system lifetime of up to 100,000h (25°C), >70,000h at maximum ambient temperature
- colour reproduction CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- ∇-symbol, suitable for rooms with increased fire risk
- uniform illumination due to the „Multi-Layer Technology“ i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.

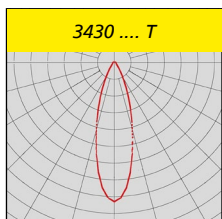
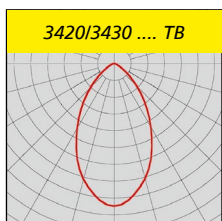
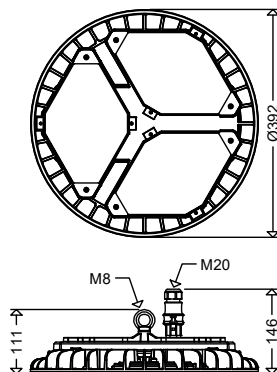
3410 ...



3420 ...



3430 ...



Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Versions with PC optics (B, TB and T) can be used without restrictions in food areas (IFS-Food).

3410...



3420...



3430...

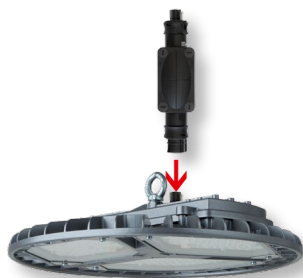


Photo: 3430 L 300 DIMD with LIMAS Air radio module



LIMAS Air FM

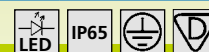


LIMAS Air FM MK



Article no.	Type	Quantity of ECG	Dimmable	Wide beam	Narrow wide beam	Narrow beam	Tmax [°C]	Weight [kg] (without packing material)	Power consumption [W]	Luminous flux [lm]	Light output [lm/W]	Substitute for *
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3410/3420/3430...



34100 0001	3410 L100 D	1	•				50	2,2
34100 0002	3410 L100 D DIMD	1	•	•			50	2,2
34100 0003	3410 L100B D	1		•			50	2,1
34100 0004	3410 L100B D DIMD	1	•	•			50	2,1

65	10.000	154	HME250
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34200 0001	3420 L200 D	1		•			45	2,9
34200 0002	3420 L200 D DIMD	1	•	•			45	2,9
34200 0003	3420 L200B D	1		•			45	2,8
34200 0004	3420 L200B D DIMD	1	•	•			45	2,8
34200 0005	3420 L200TB D	1			•		45	2,8
34200 0006	3420 L200TB D DIMD	1	•		•		45	2,8

112	18.000	161	HIT250/HME400/ HIE 400 (HI-VG)
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34300 0001	3430 L300 D	2		•			45	4,2
34300 0002	3430 L300 D DIMD	2	•	•			45	4,2
34300 0003	3430 L300B D	2		•			45	4,0
34300 0004	3430 L300B D DIMD	2	•	•			45	4,0
34300 0005	3430 L300TB D	2			•		45	4,0
34300 0006	3430 L300TB D DIMD	2	•		•		45	4,0
34300 0007	3430 L300T D	2				•	45	4,0
34300 0008	3430 L300T D DIMD	2	•			•	45	4,0

195	30.000	154	HIE400 (HS-VG)/ HIT400
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* The given information is for rough orientation only. In each individual case a lighting calculation is necessary. (VG = ballast)



LIMAS Air - Smart lighting control

Applications:

Areas where luminaires are to be intelligently controlled to lower operating costs and reduce CO₂ emissions.

Design:

CASAMBI® radio module with FastConnect quick-connector for easy plugging onto DIMD luminaires.

Article No.	Type	
90547 9001	LIMAS Air FM	CASAMBI® radio module with FastConnect quick-connector for controlling DIMD luminaires
90547 9002	LIMAS Air FM MK	CASAMBI® radio module with FastConnect quick-connector and 1m cable

Explanations of the Light Management System LIMAS Air and the system components (sensors, switches, push-buttons, etc.) can be found at the beginning of the chapter „High Bay Fittings“.

Accessories / Spare Parts

Article no.	Type	
34011 9001	3401/010	spare safety glass, for 1 LED-module
34011 9003	3401/011 PRA	PMMA spare cover , prismatic structure for 1 LED-module
34011 9002	3401/010 IFS	PC cover without optics for 1 LED-module for versions IFS
34011 9004	3401/012 B	PC spare cover with wide beam optik for 1 LED-module, version B
34011 9005	3401/012 TB	PC spare cover with narrow-wide beam optics for 1 LED-module, version TB
34011 9006	3401/012 T	PC spare cover with narrow beam optics for 1 LED-module, version T



TRIANO 2nd Generation

LED High Bay Fitting

Series 3401/3402... G2

Applications:

Production areas and warehouses, maintenance and assembly shops, cool storage facilities, walkways in rack areas, hardware stores etc.

Design:

LED-segment: Robust three-part cast aluminium housing with cooling fins, LED-modules and flat safety glasses (IK09), versions B, TB or T with PC-cover and incorporated optics.

ECG-housing 3401...: Cast aluminium

ECG-housing 3402...: Extruded aluminium with cooling fins. All case parts powder coated in DB 702 (mica-iron paint, grey).

Light distribution: Without optics wide beam, with optics wide (B), narrow-wide (TB) or narrow beam (T).

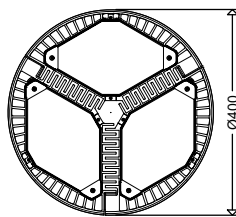
Connection: 3-pole (DIMD 5-pole) quick-connector (**FastConnect**), plug mounted to the housing, socket included.

Mounting: 1-point suspension, eyelet included.

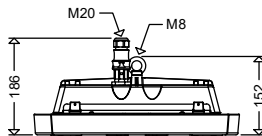
Delivery status:

Series 3402...: 2 parts, LED-segments and ECG-housing.

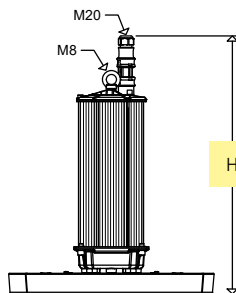
Series 3401...: 1 part



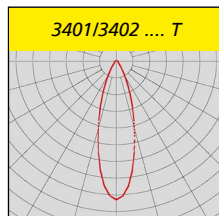
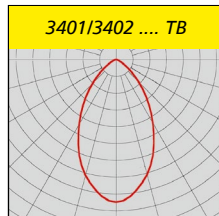
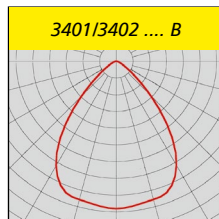
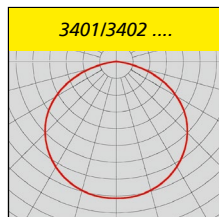
3401 L... G2



3402 L... G2



Series	H [mm]
3402 L180 DIMD	590
3402 L250	510
3402 L250 DIMD	510



Technical Data:

LED module: 5,000K, CRI > 80, lifetime L₈₀ > 100,000h at 25°C ambient temperature, lifetime L₈₀ > 80,000h at max. ambient temperature

ECG: 220-240V, 50/60Hz, Surge voltage resistance 4kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Digital dimming with DALI interface (DIMD) compatible with LIMAS Line and LIMAS Air Light Management System.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -20°C up to see article tables

Options:

- 4.000K, light-colour 840
- for connection to group or central battery systems (ZB) or emergency mains respectively
- ball sports proof version (only Series 3402)



- PC cover for application in food industry areas (IFS Food)
- silicone free
- for high ambient temperatures up to +70°C (H70)



Product highlights:

- fast mounting and commissioning due to 1-point suspension and FastConnect quick-connector
- high quality ECG with overload and short circuit protection
- optimized thermal management due to segmentation of the LED modules and direct mounting to the housing. Huge heat sink, excellent heat dissipation, excellent convection
- high system lifetime of up to 100,000h (25°C), >70,000h at maximum ambient temperature
- colour reproduction CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- V-symbol, suitable for rooms with increased fire risk
- uniform illumination due to the „Multi-Layer Technology“ i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.

High Bay Fittings



! Properties, limitations and details for controlling LED-light fittings:

■ See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Versions with PC-Optics are suitable for use in IFS-applications!

3401...



3402...



Photo: 3430 L 300 DIMD with LIMAS Air radio module



LIMAS Air FM

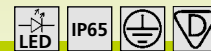


LIMAS Air FM MK



Article no.	Type	Quantity of ECG	Dimmable	Wide beam	Narrow wide beam	Narrow beam	Tmax [°C]	Weight [kg] (without packing material)	Power consumption [W]	Luminous flux [lm]	Light output [lm/W]	Substitute for *
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3401/3402... G2



34010 0100	3401 L120 G2	1	•				55	6,3	84	13.500	161	HME250
34010 0102	3401 L120 G2 DIMD	1	•	•			55	6,3				
34010 0101	3401 L180 G2	1	•				50	6,3				
34010 0112	3401 L180B G2	1	•				50	6,1				
34010 0111	3401 L180TB G2	1			•		50	6,1				
34010 0122	3401 L180T G2	1				•	50	6,1	123	20.000	163	HIT250 HME400 HIE 400 (HI-VG)
34010 0401	3402 L180 G2 DIMD	1	•	•			60	8,2				
34010 0414	3402 L180B G2 DIMD	1	•	•			60	8,0				
34010 0413	3402 L180TB G2 DIMD	1	•		•		60	8,0				
34010 0432	3402 L180T G2 DIMD	1	•			•	60	8,0				
34010 0400	3402 L250 G2	3	•				45	8,1				
34010 0416	3402 L250B G2	3	•				45	7,9				
34010 0415	3402 L250TB G2	3			•		45	7,9				
34010 0433	3402 L250T G2	3				•	45	7,9	198	29.500	149	HIT400 HIE400 (HS-VG)
34010 0402	3402 L250 G2 DIMD	3	•	•			45	8,1				
34010 0417	3402 L250B G2 DIMD	3	•	•			45	7,9				
34010 0412	3402 L250TB G2 DIMD	3	•		•		45	7,9				
34010 0434	3402 L250T G2 DIMD	3	•			•	45	7,9				

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary. (VG = ballast)



LIMAS Air - Smart lighting control

Applications:

Areas where luminaires are to be intelligently controlled to lower operating costs and reduce CO₂ emissions.

Design:

CASAMBI® radio module with FastConnect quick-connector for easy plugging onto DIMD luminaires.

Article No.	Type	
90547 9001	LIMAS Air FM	CASAMBI® radio module with FastConnect quick-connector for controlling DIMD luminaires
90547 9002	LIMAS Air FM MK	CASAMBI® radio module with FastConnect quick-connector and 1m cable

Explanations of the Light Management System LIMAS Air and the system components (sensors, switches, push-buttons, etc.) can be found at the beginning of the chapter „High Bay Fittings“.

Accessories / Spare Parts

Article no.	Type	
34011 9001	3401/010	spare safety glass, for 1 LED-module
34011 9003	3401/011 PRA	PMMA spare cover , prismatic structure for 1 LED-module
34011 9002	3401/010 IFS	PC cover withouts optics for 1 LED-module for versions IFS
34011 9004	3401/012 B	PC spare cover with wide beam optik for 1 LED-module, version B
34011 9005	3401/012 TB	PC spare cover with narrow-wide beam optics for 1 LED-module, version TB
34011 9006	3401/012 T	PC spare cover with narrow beam optics for 1 LED-module, version T



TRIANO L

LED High Bay Fitting

Series 3403...

Applications:

Production areas and warehouses, maintenance and assembly shops, cool storage facilities, walkways in rack areas, hardware stores etc.

Design:

LED-segments: Robust four-part cast aluminium housing with cooling fins, LED-modules and flat safety glasses (IK09), versions (B, TB or T) with PC cover with integrated optics.

ECG-housing: Extruded aluminium with cooling fins. All case parts powder coated in DB 702 (mica-iron paint, grey).

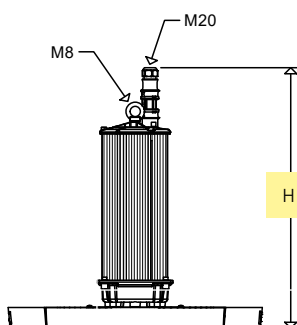
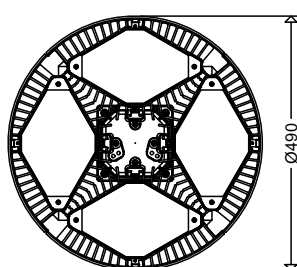
Light distribution: Without optics wide beam, with optics wide (B) narrow-wide (TB) or narrow-beam (T).

Connection: Preinstalled 3-pole (DIMD 5-pole) quick-connector (**FastConnect**), plug mounted to the housing, socket included.

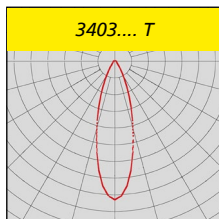
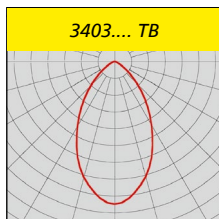
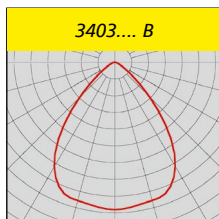
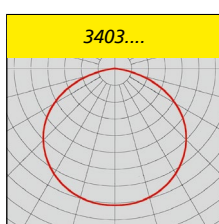
Mounting: 1-point suspension, eyelet included.

Delivery status:

2 parts: LED-segments and ECG-housing



Series	H [mm]
3403 ...	510
3403 L380.. DIMD	590



Technical Data:

LED module: 5,000K, CRI > 80, lifetime L₈₀ > 100,000h at 25°C ambient temperature, lifetime L₈₀ > 80,000h at max. ambient temperature

ECG: 220-240V, 50/60Hz, Surge voltage resistance 4kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): via 230V control input. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Further dimming levels possible.

Digital dimming with DALI interface (DIMD) compatible with LIMAS Line and LIMAS Air Light Management System.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.


Ambient temperature: -25°C up to see article tables

Options:

- 4.000K, light-colour **840**
- for connection to group or central battery systems (ZB) or emergency mains respectively
- PC cover for application in food industry areas (IFS Food)
- silicone free
- for high ambient temperatures to +70°C (H70)



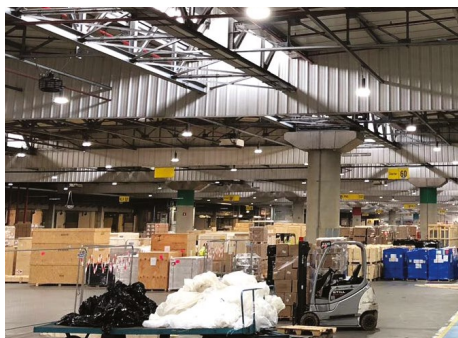
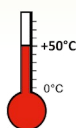
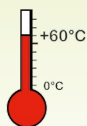
Product highlights:

- fast mounting and commissioning due to 1-point suspension and FastConnect quick-connector
- high quality ECG with overload and short circuit protection
- optimized thermal management due to segmentation of the LED modules and direct mounting to the housing. Huge heat sink, excellent heat dissipation, excellent convection
- high system lifetime of up to 100,000h (25°C), >70,000h at maximum ambient temperature
- colour reproduction Ra > 80, according to the workplace guide lines suitable for nearly all plant locations
- -symbol, suitable for rooms with increased fire risk
- uniform illumination due to the „Multi-Layer Technology“ i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.

! Properties, limitations and details for controlling LED-light fittings:
■ See "Technical Supplement"

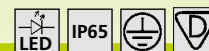
All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Versions with PC-Optics are suitable for use in IFS-applications!



Article no.	Type	Quantity of ECG	Dimmable	Wide beam	Narrow wide beam	Narrow beam	Tmax [°C]	Weight [kg] (without packing material)	Power consumption [W]	Luminous flux [lm]	Light output [lm/W]	Substitute for *
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3403...



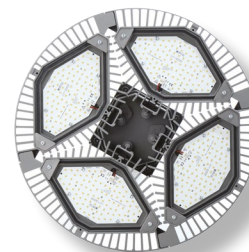
34030 0001	3403 L260	2	•				60	8,9
34030 0003	3403 L260B	2	•				60	8,9
34030 0004	3403 L260TB	2		•			60	8,9
34030 0008	3403 L260T	2			•		60	8,9
34030 0200	3403 L260 DIMD	2	•	•			60	8,9
34030 0202	3403 L260B DIMD	2	•	•			60	8,9
34030 0203	3403 L260TB DIMD	2	•		•		60	8,9
34030 0206	3403 L260T DIMD	2	•			•	60	8,9

166	27.000	163	HIT400 HIE400 (HS-VG)
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34030 0002	3403 L380	2	•				50	8,9
34030 0005	3403 L380B	2	•				50	8,9
34030 0006	3403 L380TB	2		•			50	8,9
34030 0009	3403 L380T	2			•		50	8,9
34030 0201	3403 L380 DIMD	2	•	•			50	9,7
34030 0204	3403 L380B DIMD	2	•	•			50	9,7
34030 0205	3403 L380TB DIMD	2	•		•		50	9,7
34030 0207	3403 L380T DIMD	2	•			•	50	9,7

256	39.500	154	HME700 HPI400
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* The given information is for rough orientation only. In each individual case a lighting calculation is necessary. (VG = ballast)



Excellent thermal management by unique design!

Each LED-Segment is completely surrounded by a highly efficient cooling fin structure. Such design creates a permanent air flow within the LED-Segments. It cools perfectly and avoids dust deposit that could prevent heat dissipation.

Outcome: Operation in high ambient temperature environment plus long life cycle.



LIMAS Air FM



LIMAS Air FM MK



NEW

LIMAS Air - Smart lighting control

Applications:

Areas where luminaires are to be intelligently controlled to lower operating costs and reduce CO₂ emissions.

Design:

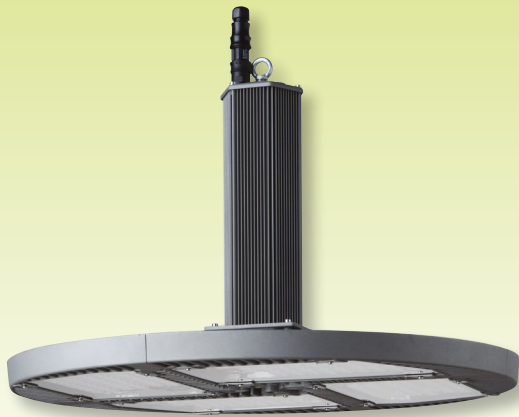
CASAMBI® radio module with FastConnect quick-connector for easy plugging onto DIMD luminaires.

Article No.	Type	
90547 9001	LIMAS Air FM	CASAMBI® radio module with FastConnect quick-connector for controlling DIMD luminaires
90547 9002	LIMAS Air FM MK	CASAMBI® radio module with FastConnect quick-connector and 1m cable

Explanations of the Light Management System LIMAS Air and the system components (sensors, switches, push-buttons, etc.) can be found at the beginning of the chapter „High Bay Fittings“.

Accessories / Spare Parts

Article no.	Type	
34011 9001	3401/010	spare safety glass, for 1 LED-module
34011 9003	3401/011 PRA	PMMA spare cover , prismatic structure for 1 LED-module
34011 9002	3401/010 IFS	PC cover without optics for 1 LED-module for versions IFS
34011 9004	3401/012 B	PC spare cover with wide beam optik for 1 LED-module, version B
34011 9005	3401/012 TB	PC spare cover with narrow-wide beam optics for 1 LED-module, version TB
34011 9006	3401/012 T	PC spare cover with narrow beam optics for 1 LED-module, version T



TRIANO XL LED High Bay Fitting Series 3405...

Applications:

Indoor areas with high mounting heights or with a requirement for high illumination levels. E.g. shipyards, hangars, machine-, maintenance- and assembly shops, hardware stores etc..

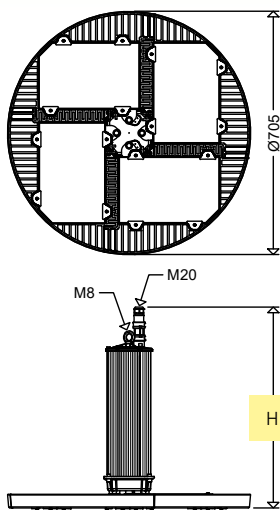
Design:

LED-segments: Robust four-part extruded aluminium housing with cooling fins, LED-modules and flat safety glasses (IK 09)
All case parts powder coated in DB 702 (mica-iron paint, grey).

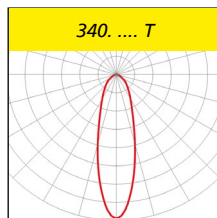
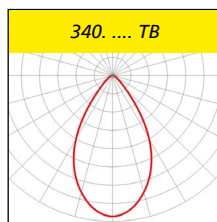
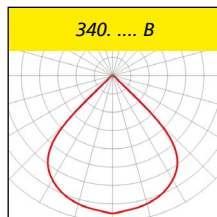
ECG-housing: Extruded aluminium with cooling fins.

Light distribution: With optics wide (B), narrow-wide (TB) or narrow beam (T).

Connection: 3-pole (DIMD 5-pole) quick-connector (**FastConnect**). Plug mounted to the housing.
Socket included
Mounting: 1-point suspension, eyelet included.
Delivery status:
2 parts: LED-segments and ECG-housing.



Series	H [mm]
3405 ...	510
3405 L630.. DIMD	590



Technical Data:

LED module: Complying Zhaga, 4,000K, CRI > 80, lifetime L₈₀ > 100,000h at 25°C ambient temperature, lifetime L₇₀ > 100,000h at max. ambient temperature
ECG: 220-240V, 50/60Hz, Surge voltage resistance 4kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): via 230V control input. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Further dimming levels possible.

Digital dimming with DALI interface (DIMD) compatible with LIMAS Line and LIMAS Air Light Management System.

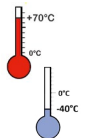
Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -25°C up to +50°C / +60°C

Options:

- 5,000K, light colour 850, e.g. in combination with LED high bay light fittings TRIANO or TRIANO L
- PC cover for application in food industry areas (IFS Food)
- silicone free

- for high ambient temperatures up to +70°C (H70)
- for low ambient temperatures down to -40°C (T40)



Product highlights:

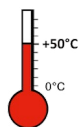
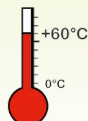
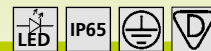
- efficient 1 : 1 - substitute for conventional high bay fittings with 1 x HME 1000W or 2 x HIT 400W
- fast mounting and commissioning due to 1-point suspension and FastConnect quick-connector
- high quality, durable ECG with overload and short circuit protection
- optimized thermal management due to segmentation of the LED modules and direct mounting to the housing. Huge heat sink, excellent heat dissipation, excellent convection
- high expectancy of life > 100.000 hours at maximum admissible ambient temperature
- colour reproduction CRI > 80, according to the workplace guide lines suitable for nearly all plant locations
- ⚠-symbol, suitable for rooms with increased fire risk
- uniform illumination due to the „Multi-Layer Technology“ i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.
- future proof by using standardized LED-modules (Zhaga)

! Properties, limitations and details for controlling LED-light fittings:
■ See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Quantity of ECG	Dimmable	Wide beam	Narrow wide beam	Narrow beam	Tmax [°C]	Weight [kg] (without packing material)	Power consumption [W]	Luminous flux [lm]	Light output [lm/W]	Substitute for *
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3405...



34050 0050	3405 L340B	3	•				60	19,8
34050 0056	3405 L340TB	3			•		60	19,8
34050 0053	3405 L340T	3				•	60	19,8
34050 0200	3405 L340B DIMD	3	•	•			60	20,4
34050 0206	3405 L340TB DIMD	3	•		•		60	20,4
34050 0203	3405 L340T DIMD	3	•			•	60	20,4

200	32.000	160	HIT 400
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34050 0051	3405 L470B	3	•				60	19,8
34050 0057	3405 L470TB	3			•		60	19,8
34050 0054	3405 L470T	3				•	60	19,8
34050 0201	3405 L470B DIMD	3	•	•			60	20,4
34050 0207	3405 L470TB DIMD	3	•		•		60	20,4
34050 0204	3405 L470T DIMD	3	•			•	60	20,4

285	45.000	158	HIT 400 HME 700
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34050 0052	3405 L630B	3	•				50	19,8
34050 0058	3405 L630TB	3			•		50	19,8
34050 0055	3405 L630T	3				•	50	19,8
34050 0202	3405 L630B DIMD	3	•	•			50	20,4
34050 0208	3405 L630TB DIMD	3	•		•		50	20,4
34050 0205	3405 L630T DIMD	3	•			•	50	20,4

405	60.000	148	2 x HIT 400 HME 1000
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* The given information is for rough orientation only. In each individual case a lighting calculation is necessary. (VG = ballast)



LIMAS Air FM



LIMAS Air FM MK



LIMAS Air - Smart lighting control

Applications:

Areas where luminaires are to be intelligently controlled to lower operating costs and reduce CO₂ emissions.

Design:

CASAMBI® radio module with FastConnect quick-connector for easy plugging onto DIMD luminaires.

Explanations of the Light Management System LIMAS Air and the system components (sensors, switches, push-buttons, etc.) can be found at the beginning of the chapter „High Bay Fittings“.

Article No.	Type	
90547 9001	LIMAS Air FM	CASAMBI® radio module with FastConnect quick-connector for controlling DIMD luminaires
90547 9002	LIMAS Air FM MK	CASAMBI® radio module with FastConnect quick-connector and 1m cable

Explanations of the Light Management System LIMAS Air and the system components (sensors, switches, push-buttons, etc.) can be found at the beginning of the chapter „High Bay Fittings“.



Accessories / Spare Parts

Article no.	Type	
34011 9011	3405/010	spare safety glass, for 1 LED-segment



FOCO L / XL

LED Floodlight for sand/glass blasting area

Series 7700... SSK / 7800... SSK

Application:

Blasting cubicles and areas in which products are sand and glasspearl blasted

Design:

Housing: Die-cast aluminium, 2-parts, powder coated DB 702 (mica-iron paint, grey).

Upper part: With LED- and optic-modules

Lower part: With electronic ballast, glass cover, cable entry with cable relief, retractable.

Glass: Flat safety glass pane, resistant to temperature changes, impact resistant IK10. Additionally, one easy replaceable

polycarbonate protective cover in a stainless steel frame in front of the glass pane, silicone gasket.

Light distribution: Narrow-wide

Connection: 3-pole terminal, max. clamping range 2,5 mm².

Cable entry: 2 cable entries M20 x 1.5 (1 cable gland and 1 screw plug).

Mounting: Mounting bracket, swivel range 180°, with 3 drillings for wall- or ceiling mounting.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 80$, lifetime $L_{80} > 100,000$ h at 25°C ambient temperature, lifetime $L_{70} > 100,000$ h at max. ambient temperature

ECG: 220-240V, 50/60Hz, Surge voltage resistance 10kV, excess temperature protection, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

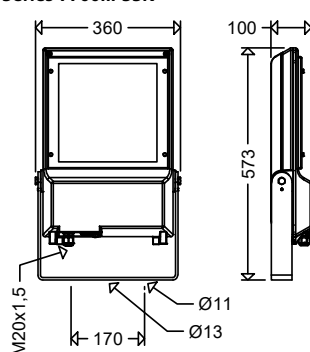
Digital dimming with DALI interface (DIMD) compatible with Light Management System LIMAS Line and LIMAS Air (MK) in combination with FastConnect quick- connector

Ambient temperature: -40°C up to +40°C

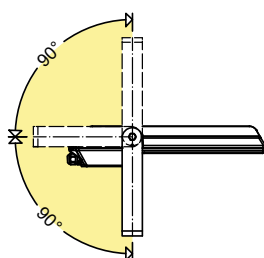
Options:

- various other light distributions e. g. TB (narrow-wide beam) and T (narrow beam) available
- special painting in all RAL colours

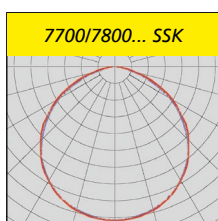
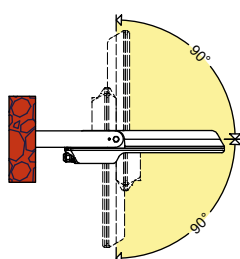
Series 7700... SSK




Swivel range



Standard Mounting



Product highlights:

- Reliable protection of the safety glass against damage and „blindness“ due to blasting material
- ECG with surge voltage resistance, reliable due to overload, short-circuit and overheating protection
- optimized thermal management due to direct adaption of the LED-modules to the die-cast aluminium housing, large cooling surface, excellent heat dissipation
- optimal light distribution due to highly efficient optics
- -symbol, suitable for rooms with increased fire risk
- homogeneous illumination due to the Multi-Layer-Technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping
- comfortable maintenance due to removable lower part of the housing, large opening allows easy access to the terminal box and the electrical components, ECG replaceable on-site
- future proof by using standardized LED-modules (Zhaga)

Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [ca. kg] (without packaging)
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7700... SSK



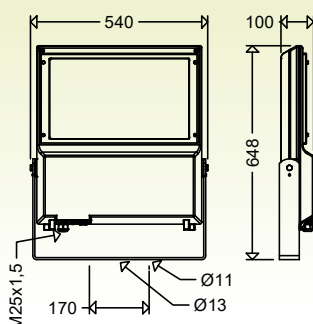
77005 0001	7700 L100 SSK	70	9.220	132	10,0
77005 0002	7700 L150 SSK	106	13.780	130	10,4
77005 0003	7700 L210 SSK	140	17.770	127	10,5

Properties, limitations and details for controlling LED-light fittings:

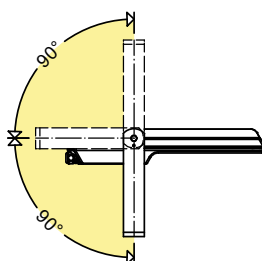
See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

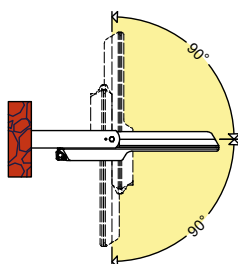
Series 7800... SSK



Swivel range



Standard Mounting



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [ca. kg] (without packaging)
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7800... SSK



78005 0001	7800 L420 SSK	280	36.720	131	18,0
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Accessories / Spare Parts

Article no.	Type	
78001 9003	7700 SSK	spare polycarbonate protective cover without frame
78001 9002	7700/010	spare safety glas
78001 9004	7800 SSK	spare polycarbonate protective cover without frame
78001 9001	7800/010	spare safety glas
90120 9011	2530	plastic cable gland M20 x 1,5 black for 7700
90121 9008	2600	plastic plug M20 x 1,5 black for 7700
90117 9000	2537	plastic cable gland M25 x 1,5 black for 7800
90118 9000	2538	plastic plug M25 x 1,5 black for 7800



Outdoor Light Fittings

LED technology expands the scope

Since the first outdoor light fitting was produced in 1906, this area of production has become an integral part of the SCHUCH manufacturing program.

With this extremely long experience, SCHUCH now offers a wide range of technical and decorative LED light fittings which provide cost-effective lighting for streets, roads and squares, in compliance to the standards.

A good outdoor light fitting shall meet various requirements. It shall provide visibility conditions according to the standards, be photometrically optimized, be easy to install and maintain, and have a long service life.

With its design, a light fitting shall harmonically fit in the environment or set deliberately individual accents.

Economic efficiency and environmental compatibility have achieved new heights due to LED technology. In this regard, modern LED light fittings set completely new standards.

FROM OUTDOOR LIGHT FITTINGS WITH INCANDESCENT LAMPS TO OUTDOOR LED LIGHT FITTINGS

1906

Production of first street light fittings for incandescent lamps

1912

The outdoor lighting range has developed into a remarkable size and variety. Cast lid fittings for metal filament lamps, spherical light fittings and wall light fittings with cut glass are just as much a part of this as street lighting fixtures with reflectors and a large number of brackets and wall arms with elaborate decorations.

1935/1936

The "elegant and inexpensive" Type 10538 is the first modern mushroom-shaped top luminaire for parks and commercial gardens.

1949

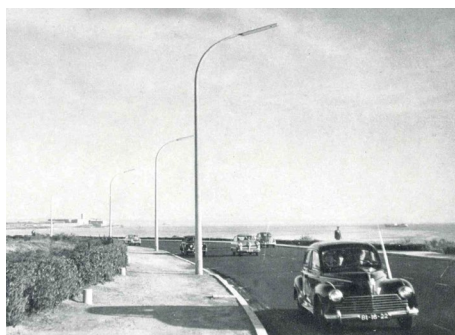
Street light fittings for mercury vapor lamps were included in the manufacturing program.

1957

Production of the first street light fitting with a housing made of fiberglass-reinforced polyester using own "PREPEG".

1985

Production start of legendary street light fittings Series 43 and 44.



LED TECHNOLOGY

2009

First LED street light fittings were manufactured at the plant in Worms.

2011-2014

Production of first die-cast aluminium street light fittings (Series 47) specially designed for LEDs.

Until 2014, the production range will be continuously expanded to include LED rope light fittings, LED floodlights and LED plane surface floodlights.

2015-2017

Introduction of the decorative LED-Street-Light-Fittings KONIC, CUPINA and PLANE0

2016

The lighting becomes smart! Launch of Light-Management-System „LIMAS“. A unique remote control system for energy-saving and on-demand control of public and industrial street lighting.

2018

With the FILOS VARIO the first LED outdoor light fitting with variable

adjustable luminous flux is launched to the market.

One type only replaces the whole range of conventional lighting. Due to this big success, the pole light fitting 48 VARIO as well as the Plane Surface Floodlight / Floodlight FOCO 7600 VARIO follows in short intervals.

2019

Fit for Future!

With the RFL-concept the light fittings are prepared for the subsequent use of light management systems.

2020

The new AREALO large-area LED spotlight for illuminating sports facilities and large areas completes the LED floodlight and spotlight range.

2021

With luminaires whose luminous flux can be adjusted using a smartphone app, we offer our customers maximum flexibility.

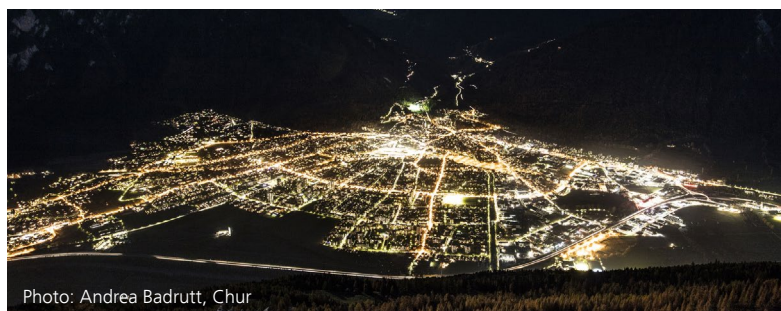


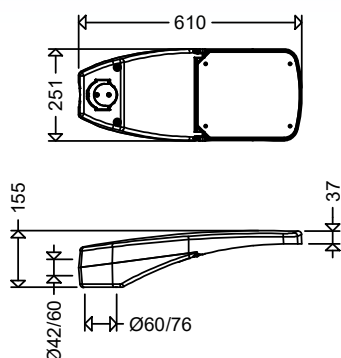
Photo: Andrea Badrutt, Chur

Outdoor Light Fittings

Product	Series	Page
Technical outdoor light fittings		
Series 48...	48... / 48... A	128-130
Series 48... VARIO	48... VARIO	131-132
Series 48... VARIO NFC	48... VARIO NFC	133-134
Series 48... RFL	48... RFL	135-137
Series 47...	47... / 47... A	138-140
Series 47... VARIO	47... VARIO	140a-140b
Series 47... VARIO NFC	47... VARIO NFC	140a-140b
Series 47... RFL	47... RFL	141-143
FILOS VARIO	42... VARIO	
with adjustable luminous flux		
• die-cast aluminium housing with Highpower-LED	42AL... VARIO	144-145
• variable setting of the luminous flux via app	42AL... VARIO NFC	146-147
• polyester housing with Midpower-LED	42... VARIO M	148-149
Series 46...	46...	150-151
Rope supported		
Series 59...	59...	152-153
Series 59... RFL	59... RFL	154-155
Series 49...	49...	156-157
Series 49... RFL	49... RFL	158-159
Polyester outdoor light fitting		
Series 287...	287...	160
Decorative outdoor light fittings		
Pole-top light fittings		
KONIC	544...	161-162
KONIC	544... RFL	163-164
CUPINA	556...	165-166
PLANE0	557...	167-168
CILA	558...	169-170
Series 541...	541...	171-172
Series 543...	543...	173-174
Series 553...	553...	175-176
Pendant light fittings		
Series 564/565...	564/565...	177-178
Plane surface floodlights		
Series 7571/7572... A	no longer available	179-180
FOCO VARIO with variable setting of the luminous flux	7600... / 7600... A	181-182
Series 7600... RFL	7600... RFL	183-184
FOCO L	7700... / 7700... A	185-186
Series 7700... RFL	7700... RFL	187-188
FOCO XL	7800... / 7800... A	189-190
Series 7800... RFL	7800... RFL	191-192
Large-Area Spotlight		
AREALO		193-195
Series 7850... SP	7850... SP	194
Series 7850... SP OV	7850... SPOV	194a
Internal pole mounting unit	7850... ME...	194a
External pole mounting unit	7850... MA...	195
Pole arm carriers		
		196
Pole-top brackets / Reducing Adapters		
		197



Now more efficient and more powerful!



Outstanding mounting advantage



LED Outdoor Light Fitting Series 48...

Applications:

Residential streets, by-roads, traffic-calmed zones, parks, walkways and cycle tracks, pedestrian zones, car parks, gateways

Design:

Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Upper section** with LED-Module, optics, glass cover and ECG, hinged and detachable. **Lower section** with pole mounting system, adjustment of inclination, cable retainer, cable entry with pressure compensation system.

Glass cover: Flat safety glass, impact

resistance IK09.

Light distribution: Asymmetrical wide, asymmetrical extremely wide (ABX) or asymmetrical (A) beam.

Connection: With isolating plug connection with cable relief.

Pole mounting device: Die-cast aluminium, universal system for post top mounting Ø 60/76mm and side entry mounting Ø 42/60mm x 100mm.

Inclination: Post top mounting 0°, 5° and 10° (factory setting 0°). Side entry mounting 0°, -5°, -10° and -15° depending on inclination of the cantilever.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

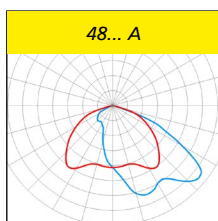
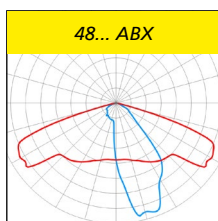
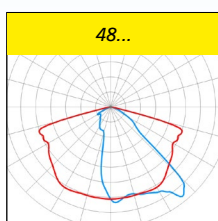
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- optics for cycle track (RWX)
- optics for M-classes (AB3)
- low glare optics (ABL)
- seawater-resistant version (SWP)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)
- Light Management System (LIMAS) in protection class I (SKI)
- with bird deterrence (BD)
- special painting in RAL colours (SL)



Product highlights:

- ECG with surge voltage resistance 10kV
- optimized thermal management due to direct adaption of the LED-modules to the housing
- lifetime $L_{90} > 100,000$ h
- integrated pressure compensation system prevents condensation in the interior
- homogeneous illumination due to the Multi-Layer-Technology
- universal pole mounting system, foldable without tools, for post top or side entry mounting, no additional pole flanges or adapter pieces required
- removable upper part of the housing allows a comfortable, time- and cost-saving mounting in 2 steps:
 - 1st step:** Mount bottom part on the pole and connect the mains
 - 2nd step:** Hinge upper part, connect isolating plug and shut the housing. READY
- adjustable inclination of the light fitting, no tools required
- upgrades or converts in regards to technical development by easy change of the upper part of the housing. After the change of the LED-modules the upper part of the housing can be used again.
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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48...



asymmetrical wide beam

	48001 0030	48 0801	9		1.350	150	7,0
	48001 0045	48 0802	13		1.850	142	7,0
* Replaces HME 80 / HIE 50	48001 0046	48 0803	18		2.500	139	7,0
Replaces HME 125 / HIE 70	48001 0005	48 1601	17		2.610	154	7,0
	48001 0006	48 1602	25		3.550	142	7,0
	48001 0007	48 1603	35		4.800	137	7,0
	48001 0047	48 2401	26		4.000	154	7,1
	48001 0048	48 2402	37		5.430	147	7,1
	48001 0049	48 2403	53		7.330	138	7,4
	48001 0015	48 3201	34		5.250	154	7,5
	48001 0016	48 3202	50		7.120	142	7,5
	48001 0017	48 3203	70		9.610	137	7,5
	48001 0288	48 0801 CL	8	9	1.220	153	7,0
	48001 0056	48 0802 CL	12	13	1.670	139	7,0
	48001 0057	48 0803 CL	16	18	2.250	141	7,0
	48001 0105	48 1601 CL	15	17	2.350	157	7,0
	48001 0106	48 1602 CL	23	25	3.200	139	7,0
	48001 0107	48 1603 CL	32	35	4.320	135	7,0
	48001 0058	48 2401 CL	23	26	3.600	157	7,1
	48001 0059	48 2402 CL	33	37	4.890	148	7,1
	48001 0060	48 2403 CL	48	53	6.600	138	7,4
	48001 0115	48 3201 CL	31	34	4.730	153	7,5
	48001 0116	48 3202 CL	45	50	6.410	142	7,5
	48001 0117	48 3203 CL	63	70	8.650	137	7,5

48... ABX



asymmetrical extremely wide beam (for large mast distances)

	48001 0001	48 0801ABX	9		1.350	150	7,0
	48001 0011	48 0802ABX	13		1.850	142	7,0
* Replaces HME 80 / HIE 50	48001 0013	48 0803ABX	18		2.500	139	7,0
Replaces HME 125 / HIE 70	48001 0002	48 1601ABX	17		2.610	154	7,0
	48001 0012	48 1602ABX	25		3.550	142	7,0
	48001 0014	48 1603ABX	35		4.800	137	7,0
	48001 0003	48 2401ABX	26		4.000	154	7,1
	48001 0004	48 2402ABX	37		5.430	147	7,1
	48001 0009	48 2403ABX	53		7.330	138	7,4
	48001 0079	48 3201ABX	34		5.250	154	7,5
	48001 0080	48 3202ABX	50		7.120	142	7,5
	48001 0081	48 3203ABX	70		9.610	137	7,5
	48001 0101	48 0801ABX CL	8	9	1.220	153	7,0
	48001 0111	48 0802ABX CL	12	13	1.670	139	7,0
	48001 0113	48 0803ABX CL	16	18	2.250	141	7,0
	48001 0102	48 1601ABX CL	15	17	2.350	157	7,0
	48001 0112	48 1602ABX CL	23	25	3.200	139	7,0
	48001 0114	48 1603ABX CL	32	35	4.320	135	7,0
	48001 0103	48 2401ABX CL	23	26	3.600	157	7,1
	48001 0166	48 2402ABX CL	33	37	4.890	148	7,1
	48001 0109	48 2403ABX CL	48	53	6.600	138	7,4
	48001 0082	48 3201ABX CL	31	34	4.730	153	7,5
	48001 0083	48 3202ABX CL	45	50	6.410	142	7,5
	48001 0084	48 3203ABX CL	63	70	8.650	137	7,5

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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48... A



asymmetrical beam (Plane Surface Floodlight)

	48001 0202	48 0801A	9		1.350	150	7,0
	48001 0203	48 0802A	13		1.850	142	7,0
* Replaces HME 80 / HIE 50	48001 0204	48 0803A	18		2.500	139	7,0
Replaces HME 125 / HIE 70	48001 0205	48 1601A	17		2.610	154	7,0
	48001 0206	48 1602A	25		3.550	142	7,0
	48001 0207	48 1603A	35		4.800	137	7,0
	48001 0213	48 2401A	26		4.000	154	7,1
	48001 0214	48 2402A	37		5.430	147	7,1
	48001 0216	48 2403A	53		7.330	138	7,4
	48001 0208	48 3201A	34		5.250	154	7,5
	48001 0209	48 3202A	50		7.120	142	7,5
	48001 0210	48 3203A	70		9.610	137	7,5
	48001 0384	48 0801A CL	8	9	1.220	153	7,0
	48001 0385	48 0802A CL	12	13	1.670	139	7,0
	48001 0386	48 0803A CL	16	18	2.250	141	7,0
	48001 0387	48 1601A CL	15	17	2.350	157	7,0
	48001 0149	48 1602A CL	23	25	3.200	139	7,0
	48001 0307	48 1603A CL	32	35	4.320	135	7,0
	48001 0388	48 2401A CL	23	26	3.600	157	7,1
	48001 0389	48 2402A CL	33	37	4.890	148	7,1
	48001 0390	48 2403A CL	48	53	6.600	138	7,4
	48001 0215	48 3201A CL	31	34	4.730	153	7,5
	48001 0224	48 3202A CL	45	50	6.410	142	7,5
	48001 0217	48 3203A CL	63	70	8.650	137	7,5

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

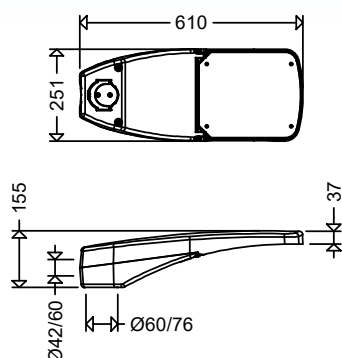
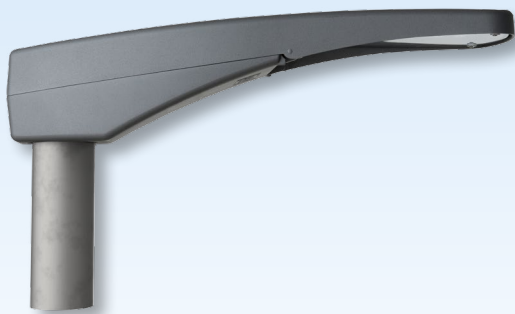
Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).



Accessories / Spare Parts

Article No.	Type	
48002 9000	48/010	flat safety glass cover
90113 0002	HA 08	backside light shielding for 48 08..
90113 0003	HA 16	backside light shielding for 48 16..
90113 0004	HA 24	backside light shielding for 48 24..
90113 0005	HA 32	backside light shielding for 48 32..

Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.



Outstanding mounting advantage



Properties, limitations and details for controlling LED-light fittings:
 ■ See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

LED Outdoor Light Fitting with variable setting of the luminous flux Series 48... VARIO

Applications:

Residential streets, by-roads, arterial roads, cycle tracks and sidewalk, traffic-calmed zones, car parks and factory roads etc.

Design:

Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Upper section** with LED-Module, optics, glass cover and ECG, hinged and detachable. **Lower section** with pole mounting system, adjustment of inclination, cable retainer, cable entry with pressure compensation system.

Glass cover: Flat safety glass, impact resistance IK09.

Switch for setting the luminous flux of the luminaire.

Light distribution: Asymmetrical wide beam.

Connection: With isolating plug connection with cable relief.

Mounting device: Die-cast aluminium, universal system for post top mounting Ø 60/76mm and side entry mounting Ø 42/60mm x 100mm.

Inclination: Post top mounting 0°, 5° and 10° (factory setting 0°). Side entry mounting 0°, -5°, -10° and -15° depending on inclination of the cantilever.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

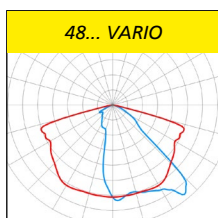
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower light output)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower light output)
- protection class I (SKI)
- asymmetrical beam (A), plane surface floodlight-optics
- optics asymmetrical extremely wide beam (ABX)
- optics for cycle tracks (RWX)
- optics for M-classes (AB3)
- low glare optics (ABL)
- seawater resistant version (SWP)
- additional overvoltage protection (OP)
- with bird deterrence (BD)
- special painting in RAL colours (SL)



Product highlights:

- simple, fast, tool-free setting of the luminous flux on site, by means of integrated switch, can be changed at any time
- two types replace several conventional lights and thus reduce the variety of types
- highly economical storage due to standardisation
- integrated pressure compensation system prevents condensation in the interior
- integrated universal pole mounting system (side entry mounting Ø 42/60mm or post top mounting Ø 60/76mm), no additional flanges or adapter pieces required
- removable upper part of the housing allows a comfortable, time- and cost-saving mounting in 2 steps:
1st step: Mount bottom part on the pole and connect the mains
2nd step: Hinge upper part, connect isolating plug and shut the housing. **READY**
- tiltable universal pole mounting system for post top and side entry mounting, no tools required
- adjustable inclination of the light fitting, no tools required
- removable ECG upper part of the housing allows a comfortable maintenance, no painful overhead working.
- upgrades or converts by easy change of the upper-part of the housing. After the change of the LED modules the upper part of the housing can be used again.
- optimal light distribution due to highly efficient lens optics
- homogeneous illumination due to the Multi-Layer-Technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)



Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Substitute for ca. *	Weight [kg] (without packing material)
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48... VARIO



The luminous flux is variably adjustable. The Power consumption will change depending on the setting of the luminous flux. In the table, you will find examples of settings with reference to the most common conventional versions. Intermediate values are also possible. Setting table on request.

48001 0703	48 L50 VARIO	9	1.120	124	HME 50, HST 35	7,5
		15	2.230	149	HME 80, HST 50	
		18	2.760 ²⁾	153	HME 125, HST 70	
		35	4.800	137	2 x HST 70	
48001 0750	48 L100 VARIO	16	2.250	141	HME 80, HST 50	7,6
		38	5.880	155	2 x HST 70	
		54	7.740 ²⁾	143	HME 250	
		70	9.610	137	HSE 150	

1) Examples of possible settings
2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).

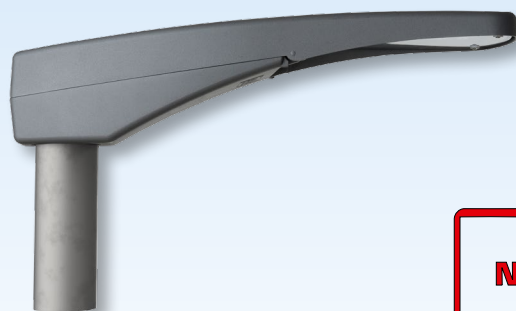
Accessories / Spare Parts

Article No.	Type	
48002 9000	48/010	flat safety glass cover
90113 0003	HA 16	backside light shielding for 48 L50
90113 0005	HA 32	backside light shielding for 48 L100

Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.

NEW

LED Outdoor Light Fitting with variable setting of the luminous flux via app Series 48... VARIO NFC



Applications:

Residential streets, by-roads, arterial roads, cycle tracks and sidewalk, traffic-calmed zones, car parks and factory roads etc.

Design:

Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Upper section** with LED-Module, optics, glass cover and ECG, hinged and detachable. **Lower section** with pole mounting system, adjustment of inclination, cable retainer, cable entry with pressure compensation system.

Glass cover: Flat safety glass, impact

resistance IK09.

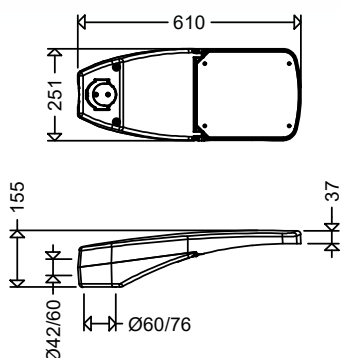
Setting the luminous flux: information sign with link to the app in the luminaire.

Light distribution: Asymmetrical wide beam.

Connection: With isolating plug connection with cable relief.

Mounting device: Die-cast aluminium, universal system for post top mounting Ø 60/76mm and side entry mounting Ø 42/60mm x 100mm.

Inclination: Post top mounting 0°, 5° and 10° (factory setting 0°). Side entry mounting 0°, -5°, -10° and -15° depending on inclination of the cantilever.



Outstanding mounting advantage



Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection. **Settings on the ECG can be made with an app via NFC.** For this purpose, the NFC interface in the device can be used for devices with Android operating system. The setting must be made before mounting the light fitting. For interference-free communication, we recommend the use of a Bluetooth/NFC adapter. For devices with iOS, the adapter (see accessories) is always required, since the NFC interface is not released for such purposes by Apple.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

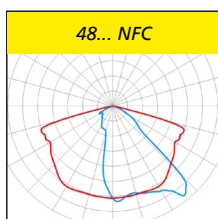
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour **730** (6% lower light output)
- 2,200K, light colour **722** (20% lower luminous flux)
- 1,800K, light colour **518** „Amber“ (35% lower light output)
- protection class **I (SKI)**
- asymmetrical beam (A), plane surface floodlight-optics
- optics asymmetrical extremely wide beam (ABX)
- optics for cycle tracks (RWX)
- optics for M-classes (AB3)
- low glare optics (ABL)
- seawater resistant version (SWP)
- additional overvoltage protection (OP)
- with bird deterrence (BD)
- special painting in RAL colours (SL)



Product highlights:

- simple, fast, tool-free adjustment of the luminous flux on site via **app (iOS or Android)**, subsequently changeable at any time. With LA version, the power reduction can additionally be set with different times and levels.
- Luminaire can be parameterized voltage-free before mounting
- highly economical storage due to reduction of type variety
- integrated pressure compensation system prevents condensation in the interior
- integrated universal pole mounting system (side entry mounting Ø 42/60mm or post top mounting Ø 60/76mm), no additional flanges or adapter pieces required
- removable upper part of the housing allows a comfortable, time- and cost-saving mounting in 2 steps:
1st step: Mount bottom part on the pole and connect the mains
2nd step: Hinge upper part, connect isolating plug and shut the housing. **READY**
- tiltable universal pole mounting system for post top and side entry mounting, no tools required
- adjustable inclination of the light fitting, no tools required
- removable ECG upper part of the housing allows a comfortable maintenance, no overhead working.
- upgrades or converts by easy change of the upper-part of the housing. After the change of the LED modules the upper part of the housing can be used again.
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Substitute for ca. *	Weight [kg] (without packing material)
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48... VARIO NFC



The luminous flux is variably adjustable. The Power consumption will change depending on the setting of the luminous flux. In the table, you will find examples of settings with reference to the most common conventional versions. Intermediate values are also possible. Setting table on request.

48003 0001	48 L50 NFC	9	1.120	124	HME 50, HST 35	7,5
		15	2.230	149	HME 80, HST 50	
		18	2.760 ²⁾	153	HME 125, HST 70	
		35	4.800	137	2 x HST 70	
48003 0002	48 L100 NFC	16	2.250	141	HME 80, HST 50	7,6
		38	5.880	155	2 x HST 70	
		54	7.740 ²⁾	143	HME 250	
		70	9.610	137	HSE 150	

1) Examples of possible settings
2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).

Accessories / Spare Parts

Article No.	Type	
48002 9000	48/010	flat safety glass cover
90113 0003	HA 16	backside light shielding for 48 L50
90113 0005	HA 32	backside light shielding for 48 L100
90545 0029	NFC-Scanner Bluetooth/NFC	for interference-free communication and for iOS operating system

Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.



LED Outdoor Light Fitting Ready for Light Management System Series 48... RFL

Applications:

Residential streets, by-roads, traffic-calmed zones, parks, walkways and cycle tracks, pedestrian zones, car parks, gateways

Design:

The luminaires are prepared for the subsequent use of a light management system. An integrated socket allows retrofitting of light management components without tools.

Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Upper section** with LED-Module, optics, glass cover and ECG, hinged and detachable. **Lower section** with pole mounting system, adjustment of inclination, cable retainer, cable entry with pressure compensation system.

Zhaga compliant socket on the top and/or bottom side of the housing.

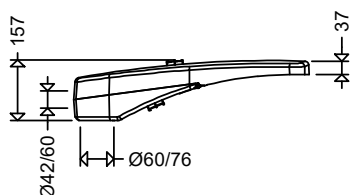
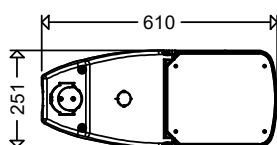
Glass cover: Flat safety glass, impact resistance IK09.

Light distribution: Asymmetrical wide or asymmetrical (A) beam.

Connection: With isolating plug connection with cable relief.

Pole mounting device: Die-cast aluminium, universal system for post top mounting Ø 60/76mm and side entry mounting Ø 42/60mm x 100mm.

Inclination: Post top mounting 0°, 5° and 10° (factory setting 0°). Side entry mounting 0°, -5°, -10° and -15° depending on inclination of the cantilever.



Exclusively D4i control gear is being used in RFL luminaires from Schuch. All D4i Zhaga Book 18 certified controllers and D4i Zhaga Book 18 certified sensors available on the market can be used in combination with RFL luminaires from Schuch.

Controllers and sensors which do not comply with the D4i standard can limit the functionality of the luminaires and components. Moreover, in individual cases, such non-certified components may cause damage to both the luminaires and the components.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

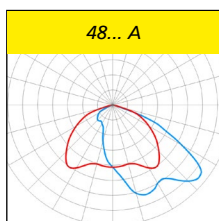
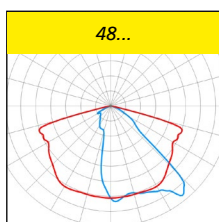
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- asymmetrical beam (A), plane surface floodlight-optics
- optics asymmetrical extremely wide beam (ABX)
- optics for cycle track (RWX)
- optics for M-classes (AB3)
- low glare optics (ABL)
- seawater-resistant version (SWP)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)
- special painting in RAL colours (SL)

Outstanding mounting advantage



Product highlights:

- subsequent use of a lighting management system possible at any time
- tool-free, quick assembly of the light management system components
- standardized Zhaga compliant sockets allow free choice of light management system
- ECG with surge voltage resistance 10kV
- optimized thermal management due to direct adaption of the LED-modules to the housing
- lifetime $L_{90} > 100,000h$
- integrated pressure compensation system prevents condensation in the interior
- homogeneous illumination due to the Multi-Layer-Technology
- universal pole mounting system, foldable without tools, for post top or side entry mounting, no additional pole flanges or adapter pieces required
- removable upper part of the housing allows a comfortable, time- and cost-saving mounting in 2 steps:
 - 1st step: Mount bottom part on the pole and connect the mains
 - 2nd step: Hinge upper part, connect isolating plug and shut the housing. READY
- adjustable inclination of the light fitting, no tools required
- upgrades or converts in regards to technical development by easy change of the upper part of the housing. After the change of the LED-modules the upper part of the housing can be used again.
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga) and Socket

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article no.	Type	Power consumption W	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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48... RFLO



with a socket on the top side of the luminaire
asymmetrical wide beam

48004 0001	48 0803 RFLO	18	2.500	139	7,0
48004 0002	48 1603 RFLO	35	4.800	137	7,0
48004 0003	48 2403 RFLO	53	7.330	138	7,4
48004 0004	48 3203 RFLO	70	9.610	137	7,5

asymmetrical beam (Plane Surface Floodlight)

48004 0034	48 0803A RFLO	18	2.500	139	7,0
48004 0035	48 1603A RFLO	35	4.800	137	7,0
48004 0036	48 2403A RFLO	53	7.330	138	7,4
48004 0037	48 3203A RFLO	70	9.610	137	7,5



48... RFLU

with a socket on the bottom side of the luminaire
asymmetrical wide beam

48004 0005	48 0803 RFLU	18	2.500	139	7,0
48004 0006	48 1603 RFLU	35	4.800	137	7,0
48004 0007	48 2403 RFLU	53	7.330	138	7,4
48004 0008	48 3203 RFLU	70	9.610	137	7,5

asymmetrical beam (Plane Surface Floodlight)

48004 0038	48 0803A RFLU	18	2.500	139	7,0
48004 0039	48 1603A RFLU	35	4.800	137	7,0
48004 0040	48 2403A RFLU	53	7.330	138	7,4
48004 0041	48 3203A RFLU	70	9.610	137	7,5



48... RFLOU

with a socket on the top and bottom side of the luminaire
asymmetrical wide beam

48004 0009	48 0803 RFLOU	18	2.500	139	7,0
48004 0010	48 1603 RFLOU	35	4.800	137	7,0
48004 0011	48 2403 RFLOU	53	7.330	138	7,4
48004 0012	48 3203 RFLOU	70	9.610	137	7,5

asymmetrical beam (Plane Surface Floodlight)

48004 0042	48 0803A RFLOU	18	2.500	139	7,0
48004 0025	48 1603A RFLOU	35	4.800	137	7,0
48004 0043	48 2403A RFLOU	53	7.330	138	7,4
48004 0044	48 3203A RFLOU	70	9.610	137	7,5

! Also available with output reduction LA or constant luminous flux function CL as well as combinations of these functions CL LA.



RFL LIMAS HUB3



RFL LIMAS BM RAD HUB LPH max. 8m



RFL LIMAS BM RAD MA LPH max. 10m



RFL DS20 HUB 20lux ON/OFF



RFL BM/DS IR HUB LPH max. 12m



LIMAS USB-Dongle



LIMAS Gateway 3 EU



Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.

System components

Article No.	Type	
90546 9009	RFL LIMAS HUB3	control element
90546 9010	RFL LIMAS HUB3 GPS	control element with GPS
90546 9011	RFL LIMAS BM RAD HUB LPH max. 8m	control element / radar motion detector
90546 9012	RFL LIMAS BM RAD MA LPH max. 10m	control element / radar motion detector
90546 9000	RFL DS20 HUB 20lux ON/OFF	Twilight switch
90546 9006	RFL BM/DS IR HUB LPH max. 12m	infrared motion detector / twilight switch

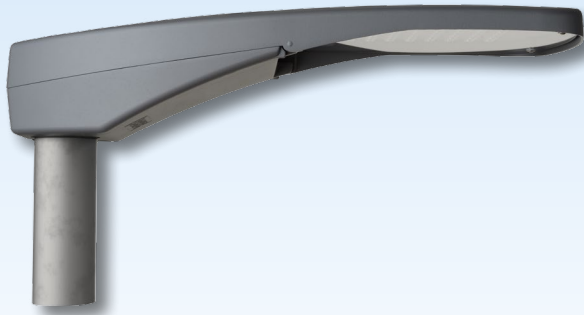
Other sensors, e.g. environmental sensors (fine dust, CO₂, weather station etc.) on request.

Control components

Article No.	Type	
90545 0001	LIMAS USB-Dongle	For setting up / programming or retrospectively adapting the light fittings in the field
90545 0004	LIMAS Gateway 3 EU	For extensive monitoring and control of the light fittings from afar with a SIM card via the mobile network or Ethernet (LAN / WLAN) including data logging functionality

Accessories / Spare Parts

Article No.	Type	
48002 9000	48/010	flat safety glass cover
90113 0002	HA 08	backside light shielding for 48 08..
90113 0003	HA 16	backside light shielding for 48 16..
90113 0004	HA 24	backside light shielding for 48 24..
90113 0005	HA 32	backside light shielding for 48 32..



LED Outdoor Light Fitting

Series 47...

Applications:

Side and main streets, roundabouts, factory streets and tracks in industrial plants, car parks, gateways etc.

Design:

Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Upper section** with LED-Module, optics, glass cover and electro kit, hinged and detachable. **Lower section** with pole mounting system, adjustment of inclination, cable retainer, cable entry with pressure compensation system.

Glass cover: Flat safety glass, impact resistance IK09.

Light distribution: Asymmetrical wide, asymmetrical extremely wide (ABX) or asymmetrical (A) beam.

Connection: With isolating plug connection with cable relief

Pole mounting device: Die-cast aluminium, universal system for post top mounting Ø 60/76mm and side entry mounting Ø 42/60mm x 100mm.

Inclination: Post top mounting 0°, 5° and 10° (factory setting 0°). Side entry mounting 0°, -5°, -10° and -15° depending on inclination of the cantilever.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

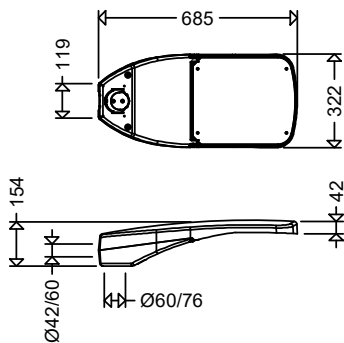
Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

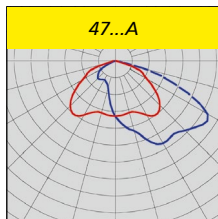
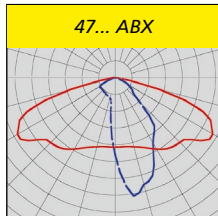
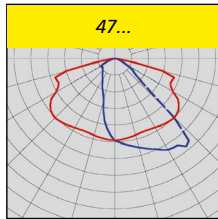
- 3,000K, light colour 730 (6% lower luminous flux) respectively
- 2,200K, light colour 722 (20% lower luminous flux) – for illumination of ship locks
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux) – seawater-resistant version (SWP)
- protection class I (SKI) – additional overvoltage protection (OP)
- optics for M-classes (AB3) – Light Management System (LIMAS) in protection class I (SKI)
- low glare optics (ABL) – with bird deterrence (BD)
- for connection to group or central battery systems (ZB) or emergency mains – VARIO version (VARIO)
- special painting in RAL colours (SL)



standardized by Deutsche Bahn AG



Outstanding mounting advantage



Product highlights:

- ECG with surge voltage resistance 10kV
- optimized thermal management due to direct adaption of the LED-modules to the housing
- lifetime $L_{90} > 100,000$ h
- integrated pressure compensation system prevents condensation in the interior
- homogeneous illumination due to the Multi-Layer-Technology
- universal pole mounting system, foldable without tools, for post top or side entry mounting, no additional pole flanges or adapter pieces required
- removable upper part of the housing allows a comfortable, time- and cost-saving mounting in 2 steps:
 - 1st step: Mount bottom part on the pole and connect the mains
 - 2nd step: Hinge upper part, connect isolating plug and shut the housing. READY
- adjustable inclination of the light fitting, no tools required
- upgrades or converts in regards to technical development by easy change of the upper part of the housing. After the change of the LED-modules the upper part of the housing can be used again.
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)



Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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47...



asymmetrical wide beam

47000 0003	47 3201	34		5.470	161	10,2
47000 0009	47 3202	50		7.410	148	10,2
47000 0004	47 3203	70		10.000	143	10,2
47000 0005	47 4801	52		8.180	157	10,2
47000 0010	47 4802	75		11.040	147	10,2
47000 0047	47 4803	106		14.860	140	10,2
47000 0007	47 6401	69		11.080	161	10,3
47000 0011	47 6402	99		14.730	149	10,3
47000 0048	47 6403	140		19.600	140	10,3
47000 0063	47 3201 CL	31	34	4.920	159	10,2
47000 0070	47 3202 CL	45	50	6.670	148	10,2
47000 0064	47 3203 CL	63	70	9.000	143	10,2
47000 0065	47 4801 CL	47	52	7.360	157	10,2
47000 0071	47 4802 CL	68	75	9.940	146	10,2
47000 0066	47 4803 CL	95	106	13.370	141	10,2
47000 0067	47 6401 CL	62	69	9.970	161	10,3
47000 0072	47 6402 CL	89	99	13.260	149	10,3
47000 0068	47 6403 CL	126	140	17.640	140	10,3

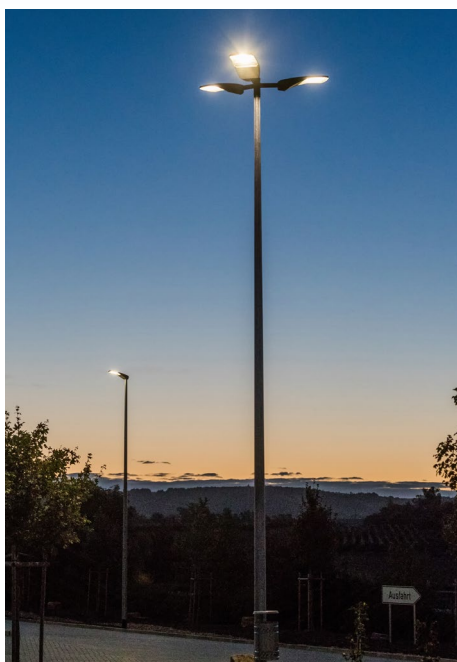
47... ABX



asymmetrical extremely wide beam

47000 0155	47 3201ABX	34		5.470	161	10,2
47000 0156	47 3202ABX	50		7.410	148	10,2
47000 0408	47 3203ABX	70		10.000	143	10,2
47000 0157	47 4801ABX	52		8.180	157	10,2
47000 0158	47 4802ABX	75		11.040	147	10,2
47000 0159	47 4803ABX	106		14.860	140	10,2
47000 0160	47 6401ABX	69		11.080	161	10,3
47000 0161	47 6402ABX	99		14.730	149	10,3
47000 0166	47 6403ABX	140		19.600	140	10,3
47000 0167	47 3201ABX CL	31	34	4.920	159	10,2
47000 0428	47 3202ABX CL	45	50	6.670	148	10,2
47000 0427	47 3203ABX CL	63	70	9.000	143	10,2
47000 0175	47 4801ABX CL	47	52	7.360	157	10,2
47000 0176	47 4802ABX CL	68	75	9.940	146	10,2
47000 0177	47 4803ABX CL	95	106	13.370	141	10,2
47000 0178	47 6401ABX CL	62	69	9.970	161	10,3
47000 0179	47 6402ABX CL	89	99	13.260	149	10,3
47000 0180	47 6403ABX CL	126	140	17.640	140	10,3

! Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).



Endurance tests in Dubai confirm excellent thermal management of Series 47 ..

Test conditions:

- LED-fitting with maximum power consumption
- maximum current supply
- operation during daytime and at direct sunlight

Result:

The light fitting performed at any time correctly and reliably.

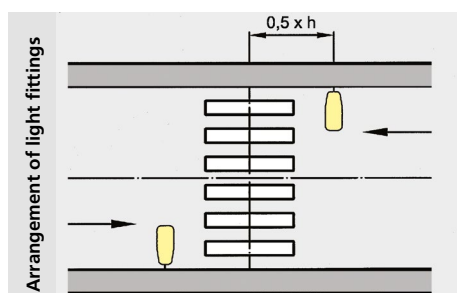
Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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47... A



asymmetrical beam (Plane Surface Floodlight)

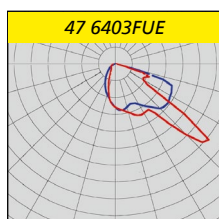
47000 0103	47 3201A	34		5.470	161	10,2
47000 0132	47 3202A	50		7.410	148	10,2
47000 0104	47 3203A	70		10.000	143	10,2
47000 0105	47 4801A	52		8.180	157	10,2
47000 0131	47 4802A	75		11.040	147	10,2
47000 0109	47 4803A	106		14.860	140	10,2
47000 0107	47 6401A	69		11.080	161	10,3
47000 0134	47 6402A	99		14.730	149	10,3
47000 0110	47 6403A	140		19.600	140	10,3
47000 0163	47 3201A CL	31	34	4.920	159	10,2
47000 0162	47 3202A CL	45	50	6.670	148	10,2
47000 0164	47 3203A CL	63	70	9.000	143	10,2
47000 0165	47 4801A CL	47	52	7.360	157	10,2
47000 0242	47 4802A CL	68	75	9.940	146	10,2
47000 0169	47 4803A CL	95	106	13.370	141	10,2
47000 0356	47 6401A CL	62	69	9.970	161	10,3
47000 0174	47 6402A CL	89	99	13.260	149	10,3
47000 0168	47 6403A CL	126	140	17.640	140	10,3



47... FUE



For pedestrian crossings or for object protection



Applications:

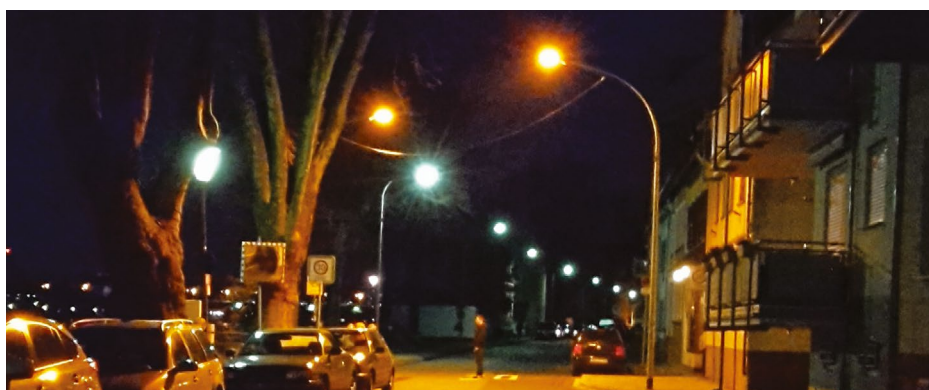
Pedestrian crossings, object protection, fence, apron, area illumination ...

Design:

Asymmetrical light distribution. Major light beam crosswise to longitudinal axis of the luminaire with limited backward light beam.

47000 0448	47 6403FUE	140		19.600	140	10,3
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! Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).



Pedestrian crossing illuminated with 1.800K (Amber)

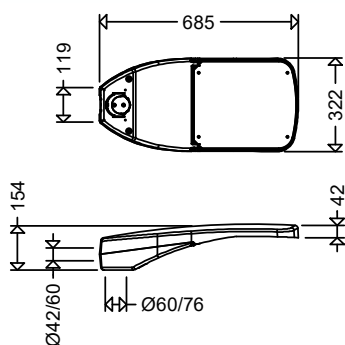
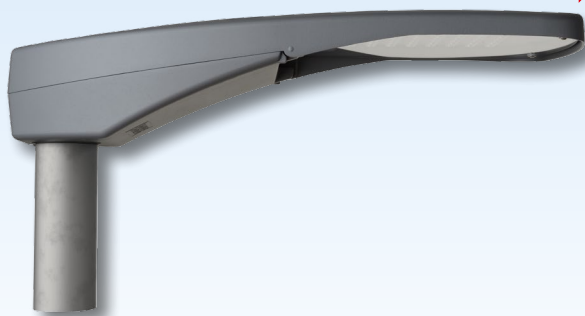
Accessories / Spare Parts

Article no.	Type	
47001 9002	47/010	flat safety glass
90113 0005	HA 32	backside light shielding for 47 32..
90113 0006	HA 48	backside light shielding for 47 48..
90113 0007	HA 64	backside light shielding for 47 64..

Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.

NEW

LED Outdoor Light Fitting with variable setting of the luminous flux Series 47... VARIO



Outstanding mounting advantage



Applications:

Side and main streets, roundabouts, factory streets and tracks in industrial plants, car parks, gateways etc.

Design:

Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Upper section** with LED-Module, optics, glass cover and electro kit, hinged and detachable. **Lower section** with pole mounting system, adjustment of inclination, cable retainer, cable entry with pressure compensation system. **Glass cover:** Flat safety glass, impact resistance IK09.

Switch for setting the luminous flux of the luminaire.

Light distribution: Asymmetrical wide beam.

Connection: With isolating plug connection with cable relief

Pole mounting device: Die-cast aluminium, universal system for post top mounting Ø 60/76mm and side entry mounting Ø 42/60mm x 100mm.

Inclination: Post top mounting 0°, 5° and 10° (factory setting 0°). Side entry mounting 0°, -5°, -10° and -15° depending on inclination of the cantilever.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

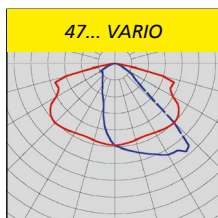
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower light output)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower light output)
- protection class I (SKI)
- asymmetrical beam (A), plane surface floodlight-optics
- optics asymmetrical extremely wide beam (ABX)
- optics for cycle tracks (RWX)
- optics for M-classes (AB3)
- low glare optics (ABL)
- seawater resistant version (SWP)
- additional overvoltage protection (OP)
- with bird deterrence (BD)
- special painting in RAL colours (SL)



Product highlights:

- simple, fast, tool-free setting of the luminous flux on site, by means of integrated switch, can be changed at any time
- two types replace several conventional lights and thus reduce the variety of types
- highly economical storage due to standardisation
- integrated pressure compensation system prevents condensation in the interior
- integrated universal pole mounting system (side entry mounting Ø 42/60mm or post top mounting Ø 60/76mm), no additional flanges or adapter pieces required
- removable upper part of the housing allows a comfortable, time- and cost-saving mounting in 2 steps:
 - 1st step: Mount bottom part on the pole and connect the mains
 - 2nd step: Hinge upper part, connect isolating plug and shut the housing. READY
- tiltable universal pole mounting system for post top and side entry mounting, no tools required
- adjustable inclination of the light fitting, no tools required
- removable ECG upper part of the housing allows a comfortable maintenance, no painful overhead working.
- upgrades or converts by easy change of the upper-part of the housing. After the change of the LED modules the upper part of the housing can be used again.
- optimal light distribution due to highly efficient lens optics
- homogeneous illumination due to the Multi-Layer-Technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Substitute for ca. *	Weight [kg] (without packing material)
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47... VARIO



The luminous flux is variably adjustable. The Power consumption will change depending on the setting of the luminous flux. In the table, you will find examples of settings with reference to the most common conventional versions. Intermediate values are also possible. Setting table on request.

47000 0366	47 L100 VARIO	16	2.340	146	HME 80, HST 50	10,2
		38	6.120	161	2 x HST 70	
		54	8.060 ²⁾	149	HME 250	
		70	10.000	143	HSE 150	
47000 0364	47 L150 VARIO	24	3.510	146	2 x HME 80	10,2
		45	7.010	156	2 x HME 125, HST 100	
		82	12.000	146	2 x HSE 100, HST 150	
		106	14.860 ²⁾	140	2 x HME 250	
47000 0365	47 L200 VARIO	32	4.750	148	2 x HST 70	10,3
		79	12.300	156	2 x HSE 100, HST 150	
		99	14.730	149	2 x HME 250	
		140	19.600 ²⁾	140	HME 400	

1) Examples of possible settings
2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).

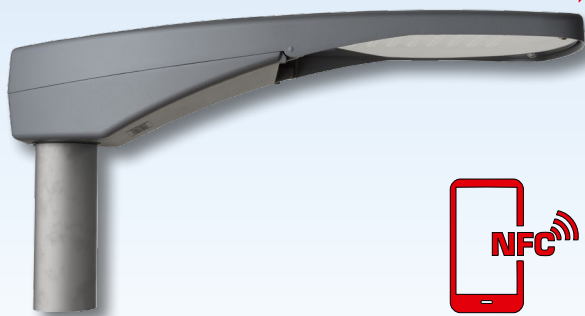
Accessories / Spare Parts

Article no.	Type	
47001 9002	47/010	flat safety glass
90113 0005	HA 32	backside light shielding for 47 L100
90113 0006	HA 48	backside light shielding for 47 L150
90113 0007	HA 64	backside light shielding for 47 L200

Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.

NEW

LED Outdoor Light Fitting with variable setting of the luminous flux Series 47... VARIO NFC



Applications:

Side and main streets, roundabouts, factory streets and tracks in industrial plants, car parks, gateways etc.

Design:

Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Upper section** with LED-Module, optics, glass cover and electro kit, hinged and detachable. **Lower section** with pole mounting system, adjustment of inclination, cable retainer, cable entry with pressure compensation system. **Glass cover:** Flat safety glass, impact resistance IK09.

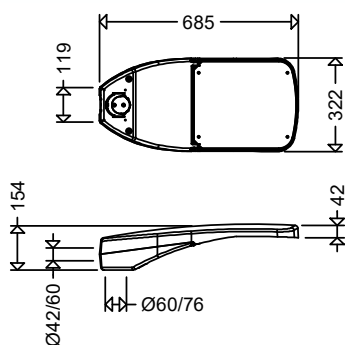
Setting the luminous flux: information sign with link to the app in the luminaire.

Light distribution: Asymmetrical wide beam.

Connection: With isolating plug connection with cable relief

Pole mounting device: Die-cast aluminium, universal system for post top mounting Ø 60/76mm and side entry mounting Ø 42/60mm x 100mm.

Inclination: Post top mounting 0°, 5° and 10° (factory setting 0°). Side entry mounting 0°, -5°, -10° and -15° depending on inclination of the cantilever.



Outstanding mounting advantage



Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection. **Settings on the ECG can be made with an app via NFC.** For this purpose, the NFC interface in the device can be used for devices with Android operating system. The setting must be made before mounting the light fitting. For interference-free communication, we recommend the use of a Bluetooth/NFC adapter. For devices with iOS, the adapter (see accessories) is always required, since the NFC interface is not released for such purposes by Apple.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

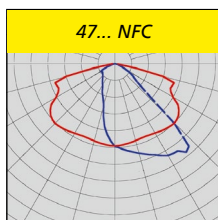
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower light output)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower light output)
- protection class I (SKI)
- asymmetrical beam (A), plane surface floodlight-optics
- optics asymmetrical extremely wide beam (ABX)
- optics for cycle tracks (RWX)
- optics for M-classes (AB3)
- low glare optics (ABL)
- seawater resistant version (SWP)
- additional overvoltage protection (OP)
- with bird deterrence (BD)
- special painting in RAL colours (SL)



Product highlights:

- simple, fast, tool-free adjustment of the luminous flux on site via app (iOS or Android), subsequently changeable at any time. With LA version, the power reduction can additionally be set with different times and levels.
- Luminaire can be parameterized voltage-free before mounting
- highly economical storage due to reduction of type variety
- integrated pressure compensation system prevents condensation in the interior
- integrated universal pole mounting system (side entry mounting Ø 42/60mm or post top mounting Ø 60/76mm), no additional flanges or adapter pieces required
- removable upper part of the housing allows a comfortable, time- and cost-saving mounting in 2 steps:
 - 1st step: Mount bottom part on the pole and connect the mains
 - 2nd step: Hinge upper part, connect isolating plug and shut the housing. READY
- tiltable universal pole mounting system for post top and side entry mounting, no tools required
- adjustable inclination of the light fitting, no tools required
- removable ECG upper part of the housing allows a comfortable maintenance, no overhead working.
- upgrades or converts by easy change of the upper-part of the housing. After the change of the LED modules the upper part of the housing can be used again.
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Substitute for ca. *	Weight [kg] (without packing material)
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47... VARIO NFC



The luminous flux is variably adjustable. The Power consumption will change depending on the setting of the luminous flux. In the table, you will find examples of settings with reference to the most common conventional versions. Intermediate values are also possible. Setting table on request.

47003 0001	47 L100 NFC	16	2.340	146	HME 80, HST 50	10,2
		38	6.120	161	2 x HST 70	
		54	8.060 ²⁾	149	HME 250	
		70	10.000	143	HSE 150	
47003 0002	47 L150 NFC	24	3.510	146	2 x HME 80	10,2
		45	7.010	156	2 x HME 125, HST 100	
		82	12.000	146	2 x HSE 100, HST 150	
		106	14.860 ²⁾	140	2 x HME 250	
47003 0003	47 L200 NFC	32	4.750	148	2 x HST 70	10,3
		79	12.300	156	2 x HSE 100, HST 150	
		99	14.730	149	2 x HME 250	
		140	19.600 ²⁾	140	HME 400	

1) Examples of possible settings

2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).

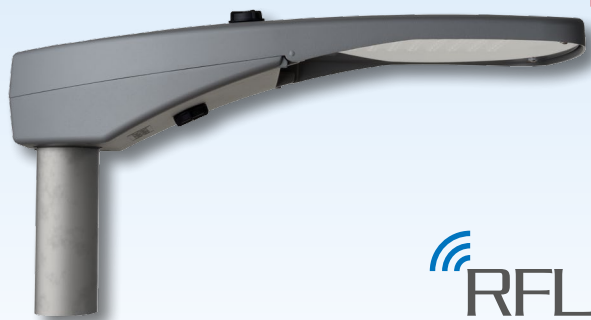
Accessories / Spare Parts

Article no.	Type	
47001 9002	47/010	flat safety glass
90113 0005	HA 32	backside light shielding for 47 32..
90113 0006	HA 48	backside light shielding for 47 48..
90113 0007	HA 64	backside light shielding for 47 64..
90545 0029	NFC-Scanner Bluetooth/NFC	for interference-free communication and for iOS operating system

Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.

NEW

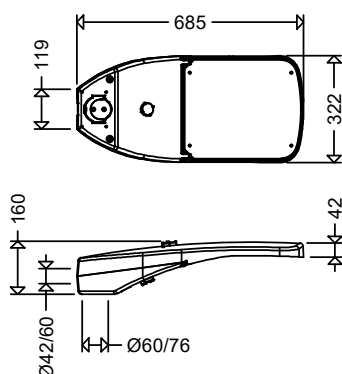
LED Outdoor Light Fitting Ready for Light Management System Series 47... RFL



RFL



standardized by Deutsche Bahn AG



Outstanding mounting advantage



Exclusively D4i control gear is being used in RFL luminaires from Schuch. All D4i Zhaga Book 18 certified controllers and D4i Zhaga Book 18 certified sensors available on the market can be used in combination with RFL luminaires from Schuch.

Controllers and sensors which do not comply with the D4i standard can limit the functionality of the luminaires and components. Moreover, in individual cases, such non-certified components may cause damage to both the luminaires and the components.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

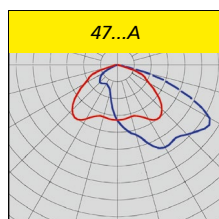
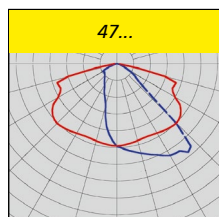
ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.



Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- optics asymmetrical extremely wide beam (ABX)
- optics for M-classes (AB3)
- low glare optics (ABL)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- seawater-resistant version (SWP)
- additional overvoltage protection (OP)
- special painting in RAL colours (SL)

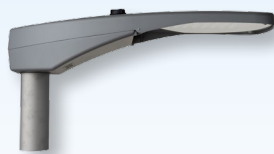
Product highlights:

- subsequent use of a lighting management system possible at any time
- tool-free, quick assembly of the light management system components
- standardized Zhaga compliant sockets allow free choice of light management system
- ECG with surge voltage resistance 10kV
- optimized thermal management due to direct adaption of the LED-modules to the housing
- lifetime $L_{90} > 100,000h$
- integrated pressure compensation system prevents condensation in the interior
- homogeneous illumination due to the Multi-Layer-Technology
- universal pole mounting system, foldable without tools, for post top or side entry mounting, no additional pole flanges or adapter pieces required
- removable upper part of the housing allows a comfortable, time- and cost-saving mounting in 2 steps:
 - 1st step:** Mount bottom part on the pole and connect the mains
 - 2nd step:** Hinge upper part, connect isolating plug and shut the housing. **READY**
- adjustable inclination of the light fitting, no tools required
- upgrades or converts in regards to technical development by easy change of the upper part of the housing. After the change of the LED-modules the upper part of the housing can be used again.
- eco-friendly, no light emission into the upper half-space. **Dark-Sky requirements are fulfilled**
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga) and Socket

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article no.	Type	Power consumption W	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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47... RFLO



with a socket on the top side of the luminaire
asymmetrical wide beam

47002 0001	47 3203 RFLO	70	10.000	143	10,2
47002 0002	47 4803 RFLO	106	14.860	140	10,2
47002 0003	47 6403 RFLO	140	19.600	140	10,3

asymmetrical beam (Plane Surface Floodlight)

47002 0019	47 3203A RFLO	70	10.000	143	10,2
47002 0020	47 4803A RFLO	106	14.860	140	10,2
47002 0021	47 6403A RFLO	140	19.600	140	10,3



47... RFLU

with a socket on the bottom side of the luminaire
asymmetrical wide beam

47002 0004	47 3203 RFLU	70	10.000	143	10,2
47002 0005	47 4803 RFLU	106	14.860	140	10,2
47002 0006	47 6403 RFLU	140	19.600	140	10,3

asymmetrical beam (Plane Surface Floodlight)

47002 0022	47 3203A RFLU	70	10.000	143	10,2
47002 0023	47 4803A RFLU	106	14.860	140	10,2
47002 0024	47 6403A RFLU	140	19.600	140	10,3



47... RFLOU

with a socket on the top and bottom side of the luminaire
asymmetrical wide beam

47002 0007	47 3203 RFLOU	70	10.000	143	10,2
47002 0008	47 4803 RFLOU	106	14.860	140	10,2
47002 0009	47 6403 RFLOU	140	19.600	140	10,3

asymmetrical beam (Plane Surface Floodlight)

47002 0025	47 3203A RFLOU	70	10.000	143	10,2
47002 0026	47 4803A RFLOU	106	14.860	140	10,2
47002 0027	47 6403A RFLOU	140	19.600	140	10,3

! Also available with output reduction LA or constant luminous flux function CL as well as combinations of these functions CL LA.



RFL LIMAS HUB3



RFL LIMAS BM RAD HUB LPH max. 8m



RFL LIMAS BM RAD MA LPH max. 10m



RFL DS20 HUB 20lux ON/OFF



RFL BM/DS IR HUB LPH max. 12m



LIMAS USB-Dongle



LIMAS Gateway 3 EU



Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.

System components

Article No.	Type	
90546 9009	RFL LIMAS HUB3	control element
90546 9010	RFL LIMAS HUB3 GPS	control element with GPS
90546 9011	RFL LIMAS BM RAD HUB LPH max. 8m	control element / radar motion detector
90546 9012	RFL LIMAS BM RAD MA LPH max. 10m	control element / radar motion detector
90546 9000	RFL DS20 HUB 20lux ON/OFF	Twilight switch
90546 9006	RFL BM/DS IR HUB LPH max. 12m	infrared motion detector / twilight switch

Other sensors, e.g. environmental sensors (fine dust, CO₂, weather station etc.) on request.

Control components

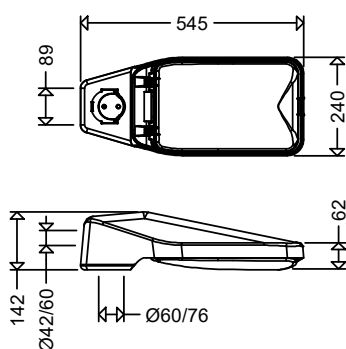
Article No.	Type	
90545 0001	LIMAS USB-Dongle	For setting up / programming or retrospectively adapting the light fittings in the field
90545 0004	LIMAS Gateway 3 EU	For extensive monitoring and control of the light fittings from afar with a SIM card via the mobile network or Ethernet (LAN / WLAN) including data logging functionality

Accessories / Spare Parts

Article no.	Type	
47001 9002	47/010	flat safety glass
90113 0005	HA 32	backside light shielding for 47 32..
90113 0006	HA 48	backside light shielding for 47 48..
90113 0007	HA 64	backside light shielding for 47 64..



Die-cast aluminum housing!



FILOS LED Outdoor Light Fitting with variable setting of the luminous flux Series 42AL... VARIO

Applications:

Residential-, side roads und through traffic streets, footpaths and cycle tracks, traffic-calmed areas, factory streets in industrial plants, car parks, gateways etc..

Design :

Housing: Die-cast aluminium, DB 702.

Diffuser: UV-stabilized PC, clear, hingeable and detachable.

Gear tray: Aluminium, with LED modul, optics and all electrical components in compact unit protected against accidental contact, isolating plug connection and cable retainer.

Switch for setting the luminous flux of the luminaire.

Central closing: Stainless steel.

Light distribution: Asymmetrical wide beam.

Mounting system: Die-cast aluminium, universal on pole end Ø of 60/76mm or for pole outreaches Ø of 42/60 x 100mm. Side entry mounting 0°, -5°, -10° and -15° depending on inclination of the cantilever.

Electrical design:

LED module: Highpower-LED, Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

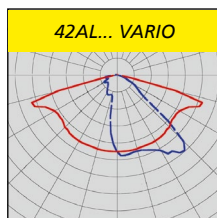
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (8% lower light output)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (38% lower light output)
- protection class I (SKI)
- asymmetrical beam (A), plane surface floodlight-optics
- optics asymmetrical extremely wide beam (ABX)
- optics for cycle track (RWX)
- seawater resistant version (SWP)
- additional overvoltage protection (OP)
- Ready for Light Management Systems (RFL)
- Glass fibre reinforced polyester housing
- special painting in RAL colours (SL)



Product highlights:

- one types replace several conventional lights and thus reduce the variety of types
- simple, fast, tool-free setting of the luminous flux on site, by means of integrated switch, can be changed at any time
- highly economical storage due to standardisation
- ECG with high over-voltage protection reliable due to overload and short circuit protection
- integrated pressure compensation system prevents condensation in the interior
- protection of the LEDs against mechanical and electrostatic discharge due to sandwich-design of gear tray and cover
- homogeneous illumination due to the Multi-Layer technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping. No dark zones in the road if any single LED would fail and the uniformity of the illumination is kept.
- Quick an easy mounting due to
 - tool-free opening of the luminaire by means of a central toggle clamp made of stainless steel
 - gear tray hingeable and detachable
- removable multi-function cable entry enables pre-assembly of the connection cable
 - integrated universal pole mounting system (side entry mounting Ø 42/60mm or post top mounting Ø 60/76mm), no additional flanges or adapter pieces required
- quick changeover due to easily replaceable gear-tray with disconnecter
- eco-friendly, light emission into the upper half-space < 1%
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Substitute for ca. *	Weight [kg] (without packing material)
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42AL... VARIO



Wind load
area
A = 0,06m²

The luminous flux is variably adjustable. The Power consumption will change depending on the setting of the luminous flux. In the table, you will find examples of settings with reference to the most common conventional versions. Intermediate values are also possible. Setting table on request.

42003 0001	42AL L50 VARIO	9	1.180	131	HME 50, HST 35	4,9
		15	2.350	157	HME 80, HST 50	
		18	2.910 ²⁾	162	HME 125, HST 70	
		35	5.000	143	2 x HST 70	

1) Examples of possible settings
2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).



Accessories / Spare Parts

Article no.	Type	
42001 9003	42000 PC	spare glass PC, UV stabilized, clear
90113 0003	HA 16	backside light shielding for 42AL L50

Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.

NEW

FILOS

LED Outdoor Light Fitting

with variable setting of the luminous flux via app
Series 42AL... VARIO NFC



Die-cast aluminum housing!



Applications:

Residential-, side roads und through traffic streets, footpaths and cycle tracks, traffic-calmed areas, factory streets in industrial plants, car parks, gateways etc..

Design :

Housing: Die-cast aluminium, DB 702.

Diffuser: UV-stabilized PC, clear, hingeable and detachable.

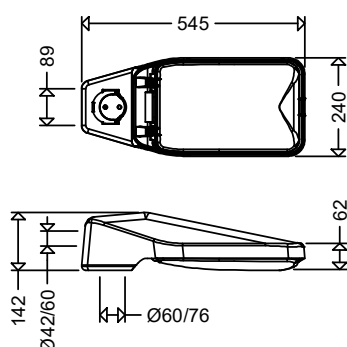
Gear tray: Aluminium, with LED modul, optics and all electrical components in compact unit protected against accidental contact, isolating plug connection and cable retainer.

Setting the luminous flux: information sign with link to the app in the luminaire.

Central closing: Stainless steel.

Light distribution: Asymmetrical wide beam.

Mounting system: Die-cast aluminium, universal on pole end Ø of 60/76mm or for pole outreaches Ø of 42/60 x 100mm. Side entry mounting 0°, -5°, -10° and -15° depending on inclination of the cantilever.



Electrical design:

LED module: Highpower-LED, Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection. **Settings on the ECG can be made with an app via NFC.** For this purpose, the NFC interface in the device can be used for devices with Android operating system. The setting must be made before mounting the light fitting. For interference-free communication, we recommend the use of a Bluetooth/ NFC adapter. For devices with iOS, the adapter (see accessories) is always required, since the NFC interface is not released for such purposes by Apple.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

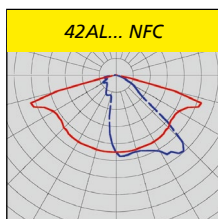
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (8% lower light output)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (38% lower light output)
- protection class I (SKI)
- asymmetrical beam (A), plane surface floodlight-optics
- optics asymmetrical extremely wide beam (ABX)
- optics for cycle track (RWX)
- seawater resistant version (SWP)
- additional overvoltage protection (OP)
- Ready for Light Management Systems (RFL)
- Glass fibre reinforced polyester housing
- special painting in RAL colours (SL)



Product highlights:

- simple, fast, tool-free adjustment of the luminous flux on site via app (iOS or Android), subsequently changeable at any time. With LA version, the power reduction can additionally be set with different times and levels.
- Luminaire can be parameterized voltage-free before mounting
- one types replace several conventional lights and thus reduce the variety of types
- ECG with high over-voltage protection reliable due to overload and short circuit protection
- integrated pressure compensation system prevents condensation in the interior
- protection of the LEDs against mechanical and electrostatic discharge due to sandwich-design of gear tray and cover
- Quick an easy mounting due to
 - tool-free opening of the luminaire by means of a central toggle clamp made of stainless steel
 - gear tray hingeable and detachable
- removable multi-function cable entry enables pre-assembly of the connection cable
- integrated universal pole mounting system (side entry mounting Ø 42/60mm or post top mounting Ø 60/76mm), no additional flanges or adapter pieces required
- quick changeover due to easily replaceable gear-tray with disconnecter
- eco-friendly, light emission into the upper half-space < 1%
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article No.	Type	Power consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]	Substitute for ca. *	Weight [kg] (without packing material)
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42AL... VARIO NFC



The luminous flux is variably adjustable. The Power consumption will change depending on the setting of the luminous flux. In the table, you will find examples of settings with reference to the most common conventional versions. Intermediate values are also possible. Setting table on request.

42005 0001	42AL L50 NFC	9	1.180	131	HME 50, HST 35	4,9
		15	2.350	157	HME 80, HST 50	
		18	2.910 ²⁾	162	HME 125, HST 70	
		35	5.000	143	2 x HST 70	

1) Examples of possible settings

2) Factory setting

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).



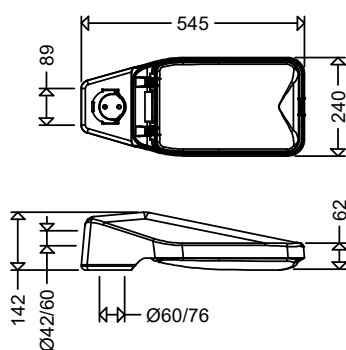
Accessories / Spare Parts

Article no.	Type	
42001 9003	42000 PC	spare glass PC, UV stabilized, clear
90113 0003	HA 16	backside light shielding for 42AL L50
90545 0029	NFC-Scanner Bluetooth/NFC	for interference-free communication and for iOS operating system

Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.



Polyester housing



FILOS LED Outdoor Light Fitting with variable setting of the luminous flux Series 42... VARIO M

Applications:

Residential-, through traffic streets, footpaths and cycle tracks, traffic-calmed areas, factory streets, car parks, gateways etc.

Design :

Housing: Glass fibre reinforced polyester resin, unpainted, or painting DB703 (mica-iron).

Diffuser: UV-stabilized PC, clear, hingeable and detachable.

Gear tray: Aluminium, with LED modul, optics and all electrical components in compact unit protected against acciden-

tal contact, isolating plug connection and cable retainer.

Switch for setting the luminous flux of the luminaire.

Central closing: Stainless steel.

Light distribution: Asymmetrical wide beam.

Mounting system: Die-cast aluminium, universal on pole end Ø of 60/76mm or for pole outreaches Ø of 42/60 x 100mm. Side entry mounting 0°, -5°, -10° and -15° depending on inclination of the cantilever.

Electrical design:

LED module: Midpower-LED, Zhaga compliant, 4,000K, $R_g > 80$, lifetime $L_{80} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

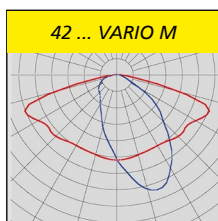
On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.



Options:

- 3,000K, light colour **830** (3% lower luminous flux)
- 2,200K, light colour **822** (17% lower luminous flux)
- protection class II (SKII)
- asymmetrical beam (A), plane surface floodlight-optics
- optics for cycle track (RWX)
- seawater resistant version (SWP)
- UV-protected and weather-resistant housing painted RAL 7035
- additional overvoltage protection (OP)
- Die-cast aluminium housing

Product highlights:

- one type replace several conventional lights and thus reduce the variety of types
- simple, fast, tool-free setting of the luminous flux on site, by means of integrated switch, can be changed at any time
- highly economical storage due to standardisation
- ECG with high over-voltage protection reliable due to overload and short circuit protection
- protection of the LEDs against mechanical and electrostatic discharge due to sandwich-design of gear tray and cover
- homogeneous illumination due to the Multi-Layer technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping. No dark zones in the road if any single LED would fail and the uniformity of the illumination is kept.
- Quick an easy mounting due to
 - tool-free opening of the luminaire by means of a central toggle clamp made of stainless steel
 - gear tray hingeable and detachable
 - removable multi-function cable entry enables pre-assembly of the connection cable
 - integrated universal pole mounting system (side entry mounting Ø 42/60mm or post top mounting Ø 60/76mm), no additional flanges or adapter pieces required
- more than 50% weight reduction compared to luminaires with die-cast aluminium housing
- quick changeover due to easily replaceable gear-tray with disconnecter
- eco-friendly, light emission into the upper half-space < 1%
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

42... VARIO M



painted DB703 (mica-iron)

Special painting in RAL colours (SL)

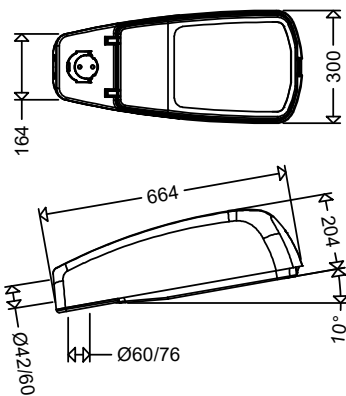
Article no.	Type	D	L	Weight ca. [kg]
48700 0001	4870	42	100	0,6
48700 0503	4870 DB703	42	100	0,6
48700 0002	4871	60	100	0,7
48700 0504	4871 DB703	60	100	0,7

Outdoor Light Fittings

Modern LED Outdoor Light Fitting with Multi-Purpose Mounting System Series 46...



with UV resistant coating



Compact unit with all electrical components,
detachable without tools.

Applications:

Residential streets, by-roads and thoroughfares, walkways and bicycle lanes, traffic-calmed zones, factory streets in industrial plants etc.

Design:

Housing: Glass fibre reinforced polyester resin with UV resistant coating, integrated pressure compensation system.

Diffuser: Flat safety glass, hinged and detachable. Profile gasket, UV stabilized, hinged and detachable.

Fasteners: Stainless steel.

Gear tray: Aluminium, with LED module,

optical and all electrical components, in compact unit connected with aluminium frame and glass pane, hinged and detachable, isolating plug connection and cable retainer.

Light distribution: Asymmetrical wide beam.

Mounting system: Universal pole mounting system made from die-cast aluminium for pole top and side entry mounting. Pole end Ø of 60mm and 76mm (inclination: 10°).

Supporting section: Ø42 x 100mm or 60 x 100mm.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime L_{90} 100,000h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

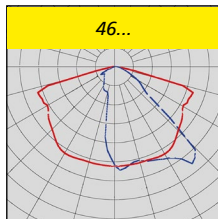
Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000 K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- asymmetrical beam (A), plane surface floodlight-optics
- optics asymmetrical extremely wide

- beam (ABX)
- optics for cycle track (RWX)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- seawater-resistant version (SWP)
- UV-protected and weather-resistant housing painted RAL 7035
- aluminium housing (AL)



Product highlights:

- ECG with surge voltage resistance, reliable due to overload and short circuit protection
- protection of the LEDs against mechanical and electrostatic discharge due to sandwich-design of gear tray and cover
- high quality housing made glass fibre reinforced from polyester with UV-protected and weather-resistant coating
- integrated pressure compensation system prevents condensation in the interior
- removable multi-function cable entry enables pre-assembly of the connection cable outside the luminaire
- tool free turnable pole mounting system for quick post top or side entry mounting
- one hinged and detachable compact unit, consisting of glass, aluminum frame, gear tray and LED, to be opened without tool, thus allowing a comfortable maintenance and a quick change of components or upgrade in case of technical development of LED
- high energy saving compared to existing installation with HPMV lamps
- optimal light distribution due to highly efficient lens optics
- homogeneous illumination due to the Multi-Layer-Technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for
controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual
technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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46...



asymmetrical extremely wide beam

46004 0001	46 1601	17		2.620	154	6,8
46004 0004	46 1602	25		3.560	142	6,8
46004 0002	46 1603	35		4.800	137	6,8
46004 0005	46 3201	34		5.360	158	6,9
46004 0003	46 3202	50		7.180	144	6,9
46004 0031	46 1601 CL	15	17	2.360	157	6,8
46004 0034	46 1602 CL	23	25	3.200	139	6,8
46004 0032	46 1603 CL	32	35	4.320	135	6,8
46004 0035	46 3201 CL	31	34	4.820	155	6,9
46004 0033	46 3202 CL	45	50	6.460	144	6,9

! Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).

NEW

Optionally also as G2



For retrofitting conventional lighting systems.

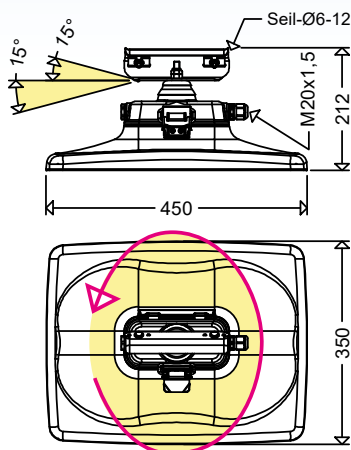


Outdoor
Light Fittings

Accessories / Spare Parts

Article no.	Type	
46001 9002	46/010	flat glass pane with aluminium frame
90113 0003	HA 16	backside light shielding for 46 16.
90113 0005	HA 32	visor to avoid backwards radiation flux for 46 32.

Pipe brackets for wall, pole and corner mounting, and post top brackets please see end of this chapter.



Outstanding mounting advantage



Rope Supported LED Light Fitting Series 59 ...

Applications:

Residential and service roads, by-roads and main roads etc.

Design:

Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Lower section** with LED-Module, optics, glass cover and ECG, tool-free hingeable and detachable. **Upper section** with bracket, adjustment of inclination, cable entry with pressure compensation system.

Glass cover: Flat safety glass, impact resistance IK10.

Light distribution: Symmetrical wide beam.

Connecting terminal: With plug-in connection in junction box between upper and lower section, tool-free separation of upper and lower section.

Mounting: Stainless steel. Turnable (all directions) and adjustable by 15°, mountable on ropes of 6 - 12mm diameter.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

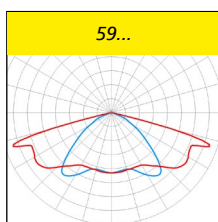
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class II (SKII), with additional ESD protection
- seawater-resistant version (SWP)
- additional overvoltage protection (OP)
- Light Management System (LIMAS) in protection class I (SKI)
- 3-point supporting bracket (3P)
- special painting in RAL colours (SL)



Product highlights:

- ECG with surge voltage resistance, reliable due to overload and short circuit protection
- optimized thermal management due to direct adaption of the LED-modules to the die-cast aluminium housing, large cooling surface, excellent heat dissipation
- long-lasting, corrosion resistant die-cast aluminium housing with plain surface. Deposit of greenery and dirt is not possible
- integrated pressure compensation system prevents condensation in the interior
- time- and cost-saving mounting in 2 steps due to tool-free removable lower part of the housing:
 - 1st step: Hinge upper part with bracket onto the rope and connect the mains
 - 2nd step: Hinge lower part, connect isolating plug, shut the housing and close. READY
- universal usage on cross- and longitudinal ropes, inclined ropes or 3-point rope supports (see accessories) due to all-side rotatable and up to 15° inclinable stainless steel bracket
- tool-free disconnection (also electrical!) of the lower part from the upper part allows a comfortable replacement of the components at site or in the workshop, extensive dismounting of the fitting or uncomfortable "over-head working" is not necessary
- efficient and optimal light distribution due to highly efficient lens optics
- homogeneous illumination due to the Multi-Layer technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping. No dark zones in the road if any single LED would fail and the uniformity of the illumination is kept.
- eco-friendly, no light emission into the upper half-space. „Dark-Sky“ requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

! Properties, limitations and details for controlling LED-light fittings:
■ See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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59...



59001 0021	59 1601	17		2.900	171	6,6
59001 0022	59 1602	25		3.940	158	6,6
59001 0023	59 1603	35		5.340	153	6,6
59001 0001	59 3201	34		5.580	164	7,0
59001 0002	59 3202	50		7.570	151	7,0
59001 0003	59 3203	70		10.230	146	7,0
59001 0024	59 1601 CL	15	17	2.610	174	6,6
59001 0025	59 1602 CL	23	25	3.550	154	6,6
59001 0026	59 1603 CL	32	35	4.810	150	6,6
59001 0004	59 3201 CL	31	34	5.020	162	7,0
59001 0005	59 3202 CL	45	50	6.810	151	7,0
59001 0006	59 3203 CL	63	70	9.210	146	7,0

! Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).



Optionally also with 3-point mounting (3P)

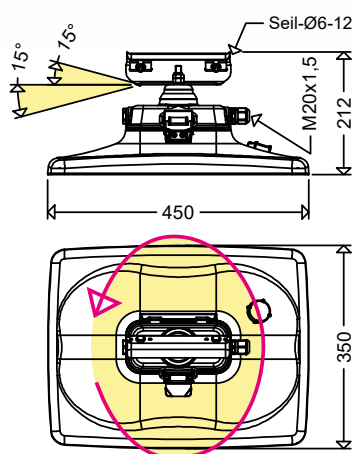


Accessories / Spare Parts

Article no.	Type	
49001 9003	59/010	flat safety glass

NEW

Rope Supported LED Light Fitting Ready for Light Management System Series 59 ... RFL



Outstanding mounting advantage



Applications:

Residential and service roads, by-roads and main roads etc.

Design:

The luminaires are prepared for the subsequent use of a light management system. An integrated socket allows retrofitting of light management components without tools.

Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Lower section** with LED-Module, optics, glass cover and ECG, tool-free hingeable and detachable.

Upper section with bracket, adjustment of inclination, cable entry with pressure

compensation system.

Zhaga compliant socket on the top side of the housing.

Glass cover: Flat safety glass, impact resistance IK10.

Light distribution: Symmetrical wide beam.

Connecting terminal: With plug-in connection in junction box between upper and lower section, tool-free separation of upper and lower section.

Mounting: Stainless steel. Turnable (all directions) and adjustable by 15°, mountable on ropes of 6 - 12mm diameter.

Exclusively D4i control gear is being used in RFL luminaires from Schuch. All D4i Zhaga Book 18 certified controllers and D4i Zhaga Book 18 certified sensors available on the market can be used in combination with RFL luminaires from Schuch.

Controllers and sensors which do not comply with the D4i standard can limit the functionality of the luminaires and components. Moreover, in individual cases, such non-certified components may cause damage to both the luminaires and the components.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

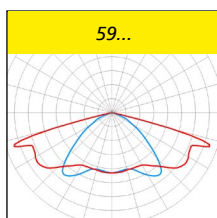
ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.



Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class II (SKII), with additional ESD protection
- seawater-resistant version (SWP)
- additional overvoltage protection (OP)
- 3-point supporting bracket (3P)
- special painting in RAL colours (SL)

Product highlights:

- subsequent use of a lighting management system possible at any time
- tool-free, quick assembly of the light management system components
- standardized Zhaga compliant socket allows free choice of light management system
- ECG with surge voltage resistance 10kV
- optimized thermal management due to direct adaption of the LED-modules to the housing
- lifetime $L_{90} > 100,000$ h
- long-lasting, corrosion resistant die-cast aluminium housing with plain surface. Deposit of greenery and dirt is not possible
- integrated pressure compensation system prevents condensation in the interior
- homogeneous illumination due to the Multi-Layer-Technology
- time- and cost-saving mounting in 2 steps due to tool-free removable lower part of the housing:
 - 1st step:** Hinge upper part with bracket onto the rope and connect the mains
 - 2nd step:** Hinge lower part, connect isolating plug, shut the housing and close. **READY**
- universal usage on cross- and longitudinal ropes, inclined ropes or 3-point rope supports (see accessories) due to all-side rotatable and up to 15° inclinable stainless steel bracket
- tool-free disconnection (also electrical!) of the lower part from the upper part allows a comfortable replacement of the components at site or in the workshop, extensive dismantling of the fitting or uncomfortable "over-head working" is not necessary
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga) and Socket

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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59... RFLO



with a socket on the top side of the luminaire

59002 0001	59 1603 RFLO	35	5.340	153	6,6
59002 0002	59 3203 RFLO	70	10.230	146	7,0

Also available with output reduction LA or constant luminous flux function CL as well as combinations of these functions CL LA.

RFL LIMAS HUB3



RFL DS20 HUB 20lux ON/OFF



LIMAS USB-Dongle



LIMAS Gateway 3 EU



System components

Article No.	Type	
90546 9009	RFL LIMAS HUB3	control element
90546 9010	RFL LIMAS HUB3 GPS	control element with GPS
90546 9000	RFL DS20 HUB 20lux ON/OFF	Twilight switch

Other sensors, e.g. environmental sensors (fine dust, CO₂, weather station etc.) on request.

Control components

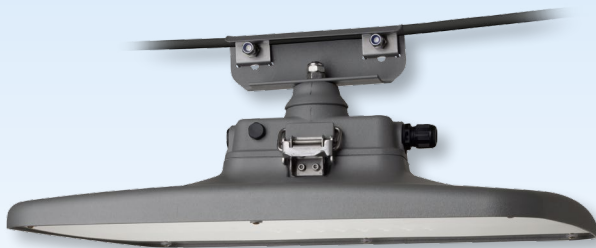
Article No.	Type	
90545 0001	LIMAS USB-Dongle	For setting up / programming or retrospectively adapting the light fittings in the field
90545 0004	LIMAS Gateway 3 EU	For extensive monitoring and control of the light fittings from afar with a SIM card via the mobile network or Ethernet (LAN / WLAN) including data logging functionality

Optionally also with 3-point mounting (3P)



Accessories / Spare Parts

Article no.	Type	
49001 9003	59/010	flat safety glass



Rope Supported LED Light Fitting Series 49 ...

Applications:

Through, collecting and main roads etc.

Design:

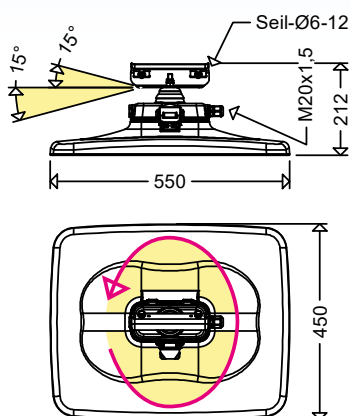
Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Lower section** with LED-Module, optics, glass cover and ECG, tool-free hingeable and detachable. **Upper section** with bracket, adjustment of inclination, cable entry with pressure compensation system.

Glass cover: Flat safety glass, impact resistance IK10.

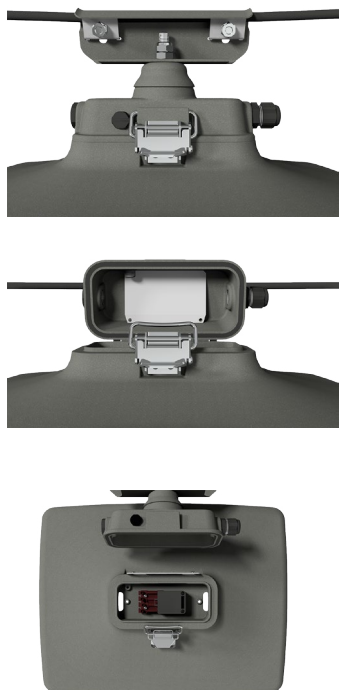
Light distribution: Symmetrical wide beam.

Connecting terminal: With plug-in connection in junction box between upper and lower section, tool-free operation of upper and lower section.

Mounting: Stainless steel. Turnable (all directions) and adjustable by 15°, mountable on ropes of 6 - 12mm diameter.



Outstanding mounting advantage



Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

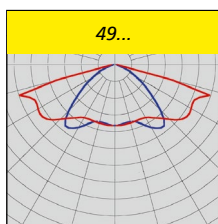
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class II (SKII), with additional ESD protection
- seawater-resistant version (SWP)
- additional overvoltage protection (OP)
- Light Management System (LIMAS) in protection class I (SKI)
- 3-point supporting bracket (3P)
- special painting in RAL colours (SL)



Product highlights:

- ECG with surge voltage resistance, reliable due to overload and short circuit protection
- optimized thermal management due to direct adaption of the LED-modules to the die-cast aluminium housing, large cooling surface, excellent heat dissipation
- long-lasting, corrosion resistant die-cast aluminium housing with plain surface. Deposit of greenery and dirt is not possible
- integrated pressure compensation system prevents condensation in the interior
- time- and cost-saving mounting in 2 steps due to tool-free removable lower part of the housing:
 - 1st step: Hinge upper part with bracket onto the rope and connect the mains.
 - 2nd step: Hinge lower part, connect isolating plug, shut the housing and close. READY
- universal usage on cross- and longitudinal ropes, inclined ropes or 3-point rope supports (see accessories) due to all-side rotatable and up to 15° inclinable stainless steel bracket
- tool-free disconnection (also electrical!) of the lower part from the upper part allows a comfortable replacement of the components at site or in the workshop, extensive dismounting of the fitting or uncomfortable "over-head working" is not necessary
- efficient and optimal light distribution due to highly efficient lens optics
- homogeneous illumination due to the Multi-Layer technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping. No dark zones in the road if any single LED would fail and the uniformity of the illumination is kept.
- eco-friendly, no light emission into the upper half-space. „Dark-Sky“ requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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49...



49000 0054	49 6401	69		11.150	162	11,8
49000 0055	49 6402	99		15.070	152	11,8
49000 0056	49 6403	140		20.300	145	11,8
49000 0074	49 6401 CL	62	69	10.040	162	11,8
49000 0075	49 6402 CL	89	99	13.560	152	11,8
49000 0076	49 6403 CL	126	140	18.270	145	11,8

! Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).

Optionally also with 3-point mounting (3P)

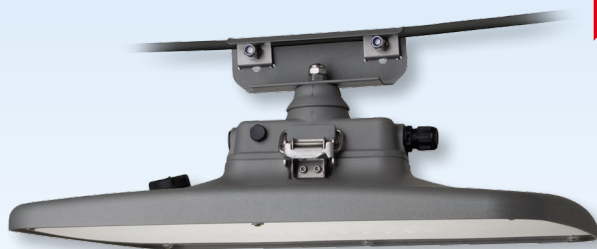


Accessories / Spare Parts

Article no.	Type	
49001 9001	49/010	flat safety glass

NEW

Rope Supported LED Light Fitting Ready for Light Management System Series 49 ... RFL



Applications:

Through, collecting and main roads etc.

Design:

The luminaires are prepared for the subsequent use of a light management system. An integrated socket allows retrofitting of light management components without tools.

Housing: Die-cast aluminium, 2-parts, powder coated in DB 702 (mica-iron paint, grey). **Lower section** with LED-Module, optics, glass cover and ECG, tool-free hingeable and detachable. **Upper section** with bracket, adjustment of inclination, cable entry with pressure compensation system.

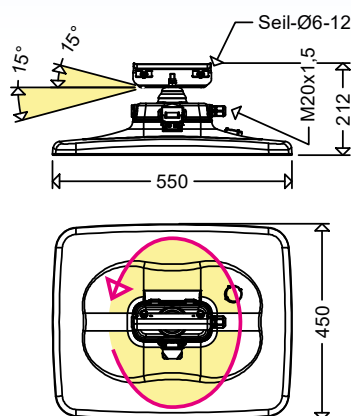
Zhaga compliant socket on the top side of the housing.

Glass cover: Flat safety glass, impact resistance IK10.

Light distribution: Symmetrical wide beam.

Connecting terminal: With plug-in connection in junction box between upper and lower section, tool-free operation of upper and lower section.

Mounting: Stainless steel. Turnable (all directions) and adjustable by 15°, mountable on ropes of 6 - 12mm diameter.



Exclusively D4i control gear is being used in RFL luminaires from Schuch. All D4i Zhaga Book 18 certified controllers and D4i Zhaga Book 18 certified sensors available on the market can be used in combination with RFL luminaires from Schuch.

Controllers and sensors which do not comply with the D4i standard can limit the functionality of the luminaires and components. Moreover, in individual cases, such non-certified components may cause damage to both the luminaires and the components.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

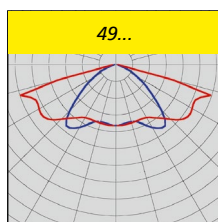
On request, the luminaires are also available with the following configurations:

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

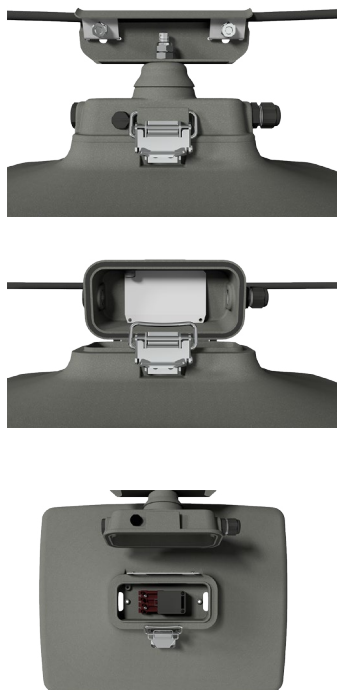
Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class II (SKII), with additional ESD protection
- seawater-resistant version (SWP)
- additional overvoltage protection (OP)
- 3-point supporting bracket (3P)
- special painting in RAL colours (SL)



Outstanding mounting advantage



Product highlights:

- subsequent use of a lighting management system possible at any time
- tool-free, quick assembly of the light management system components
- standardized Zhaga compliant socket allows free choice of light management system
- ECG with surge voltage resistance 10kV
- optimized thermal management due to direct adaption of the LED-modules to the housing
- lifetime $L_{90} > 100,000h$
- long-lasting, corrosion resistant die-cast aluminium housing with plain surface. Deposit of greenery and dirt is not possible
- integrated pressure compensation system prevents condensation in the interior
- homogeneous illumination due to the Multi-Layer-Technology
- time- and cost-saving mounting in 2 steps due to tool-free removable lower part of the housing:
 - 1st step:** Hinge upper part with bracket onto the rope and connect the mains
 - 2nd step:** Hinge lower part, connect isolating plug, shut the housing and close. **READY**
- universal usage on cross- and longitudinal ropes, inclined ropes or 3-point rope supports (see accessories) due to all-side rotatable and up to 15° inclinable stainless steel bracket
- tool-free disconnection (also electrical!) of the lower part from the upper part allows a comfortable replacement of the components at site or in the workshop, extensive dismantling of the fitting or uncomfortable "over-head working" is not necessary
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga) and Socket

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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49... RFLO



with a socket on the top side of the luminaire

49002 0002	49 6402 RFLO	99	15.070	152	11,8
49002 0001	49 6403 RFLO	140	20.300	145	11,8

! Also available with output reduction LA or constant luminous flux function CL as well as combinations of these functions CL LA.

RFL LIMAS HUB3



RFL DS20 HUB 20lux ON/OFF



LIMAS USB-Dongle



LIMAS Gateway 3 EU



System components

Article No.	Type	
90546 9009	RFL LIMAS HUB3	control element
90546 9010	RFL LIMAS HUB3 GPS	control element with GPS
90546 9000	RFL DS20 HUB 20lux ON/OFF	Twilight switch

Other sensors, e.g. environmental sensors (fine dust, CO₂, weather station etc.) on request.

Control components

Article No.	Type	
90545 0001	LIMAS USB-Dongle	For setting up / programming or retrospectively adapting the light fittings in the field
90545 0004	LIMAS Gateway 3 EU	For extensive monitoring and control of the light fittings from afar with a SIM card via the mobile network or Ethernet (LAN / WLAN) including data logging functionality

Optionally also with 3-point mounting (3P)



Accessories / Spare Parts

Article no.	Type	
49001 9001	49/010	flat safety glass

LED Polyester Outdoor Light Fitting Series 287...

Applications:

Side and main streets, through roads etc.

Design:

Housing: Glass fibre reinforced polyester resin.

Cover: Clear, pearled acrylic glass (PMMA), hinged and detachable, silicon gasket

Closure: Internal central closing device, latches and operating lever made from

stainless steel.

Reflector: White sheet steel carrying all electrical components with additional elements for glare limitation, hinged and detachable, plug-type device to the mains connection terminal in the housing.

Mounting system: On outreach end sections of 42 x 250 (287 06L) 42 x 400 (287 12L).

Electrical design:

LED module: Zhaga compliant, neutral white, 4,000K, $R_a > 80$, lifetime $L_{80} > 60,000h$.

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

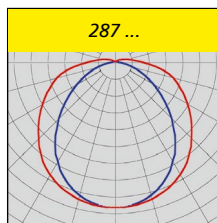
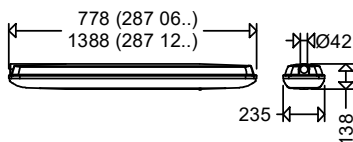
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 830 (3% lower luminous flux)
- protection class II (SKII)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)



Product highlights:

- ECG with high surge voltage resistance protection reliable due to overload and short circuit protection
- homogeneous illumination by using frosted diffusers, no particular light points visible, comfortable perception of light, brilliant glare limitation
- tool-free central locking system
- fast to maintain or to change components
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)



Article No.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
287... <div> </div>					
28703 0001	287 06L42	30	4.410	147	5,5
28703 0004	287 12L42	30	4.410	147	8,0
28703 0007	287 12L60	45	6.500	144	8,5

! Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).

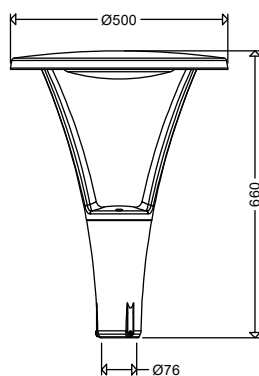
Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Accessories / Spare Parts

Article no.	Type	
28701 9003	28706L	spare glass for 287 06L..
28701 9004	28712L	spare glass for 287 12L..



KONIC LED Pole-Top Light Fitting Series 544...

Applications:

544.. ABX and ... AB:

Residential areas, residential and side streets, low traffic areas, footpaths and cycle tracks etc.

544... R:

Promenades, public parks, pedestrian areas etc.

Design:

Housing: Die-cast aluminium, threepart, powder coated DB 702 (mica-iron paint, grey).

Lower section with electrical components, cable entry, plug-type device and cable

retainer for connection cable.

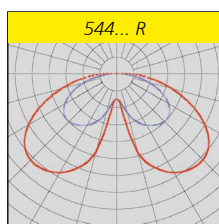
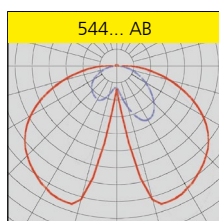
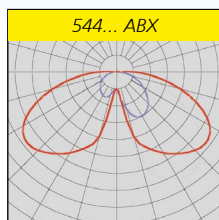
Connecting struts with cable feed-through.

Upper part with LED-modules and optics.

Cover: Acrylic glass (PMMA), frosted.

Light distribution: Asymmetrical extremely wide beam (ABX), asymmetrical wide beam (AB) or symmetrical circular beam (R).

Mounting system: 3 non-corrosive steel locking screws serve for fixation on straight pole end Ø of 76mm. Adapter (RZ 1) for pole end Ø of 60mm (see accessories).



Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000 K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- optics for cycle track (RWX)
- seawater-resistant version (SWP)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- with increased luminous flux
- special painting in RAL colours (SL)

Product highlights:

- ECG with surge voltage resistance, reliable due to overload and short circuit protection
- optimized thermal management due to direct adaption of the LED-modules to the die-cast aluminium housing, large cooling surface, excellent heat dissipation
- long-lasting, corrosion resistant aluminium housing with plain surface
- optimal light distribution due to highly efficient lens optics
- homogeneous illumination due to the Multi-Layer-Technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.
- good glare limitation due to frosted cover
- easy to install, to maintain and to retrofit
 - removable upper part of the housing allows time- and cost-saving mounting, mains connection terminal within the supporting section
 - fast maintenance due to an easily interchangeable gear-tray system (modular concept) within the supporting section, ECG can be replaced on-site
 - upgrades or converts in regards to technical development of the LED without problems by change of the upper part of the housing, after the change of the LED-modules the upper part of the housing can be used again
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article No.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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544... ABX



asymmetrical extremely wide beam

54400 0001	544 0801ABX	9	1.250	139	9,5
54400 0002	544 0802ABX	13	1.710	132	9,5
54400 0003	544 0803ABX	18	2.310	128	9,5
54400 0004	544 1601ABX	17	2.490	146	9,6
54400 0005	544 1602ABX	25	3.390	136	9,6
54400 0006	544 1603ABX	35	4.590	131	9,6
54400 0007	544 2401ABX	26	3.750	144	9,7
54400 0008	544 2402ABX	37	5.080	137	9,7
54400 0009	544 2403ABX	53	6.860	129	9,7

544... AB



asymmetrical wide beam distribution

54400 0104	544 1601AB	17	2.490	146	9,6
54400 0105	544 1602AB	25	3.390	136	9,6
54400 0106	544 1603AB	35	4.590	131	9,6
54400 0107	544 3201AB	34	4.980	146	9,8
54400 0108	544 3202AB	50	6.750	135	9,8

544... R



symmetrical circular beam

54400 0201	544 0801R	9	1.250	139	9,6
54400 0202	544 0802R	13	1.710	132	9,6
54400 0203	544 0803R	18	2.310	128	9,6
54400 0204	544 1601R	17	2.490	146	9,7
54400 0205	544 1602R	25	3.390	136	9,7
54400 0206	544 1603R	35	4.590	131	9,7
54400 0207	544 2401R	26	3.750	144	9,7
54400 0208	544 2402R	37	5.080	137	9,7
54400 0209	544 2403R	53	6.860	129	9,7

Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).



Accessories / Spare Parts

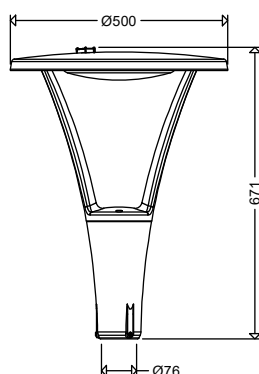
Article No.	Type	
90544 9000	10044	spare glass PMMA frosted
90113 0002	HA 08	backside light shielding for 544 08..
90113 0003	HA 16	backside light shielding for 544 16..
90113 0004	HA 24	backside light shielding for 544 24..
90113 0005	HA 32	backside light shielding for 544 32..

NEW

KONIC

Ready for Light Management System

Series 544... RFL



Applications:

544... ABX and ... AB:

Residential areas, residential and side streets, low traffic areas, footpaths and cycle tracks etc.

544... R:

Promenades, public parks, pedestrian areas etc.

Design:

The luminaires are prepared for the subsequent use of a light management system. An integrated socket allows retrofitting of light management components without tools.

Housing: Die-cast aluminium, threepart, powder coated DB 702 (mica-iron paint, grey).

Lower section with electrical components, cable entry, plug-type device and cable retainer for connection cable.

Connecting struts with cable feed-through.

Upper part with LED-modules and optics.

Zhaga compliant socket on the top side of the housing.

Cover: Acrylic glass (PMMA), frosted.

Light distribution: Asymmetrical extremely wide beam (ABX), asymmetrical wide beam (AB) or symmetrical circular beam (R).

Mounting system: 3 non-corrosive steel locking screws serve for fixation on straight pole end Ø of 76mm. Adapter (RZ 1) for pole end Ø of 60mm (see accessories).



Exclusively D4i control gear is being used in RFL luminaires from Schuch.

All D4i Zhaga Book 18 certified controllers and D4i Zhaga Book 18 certified sensors available on the market can be used in combination with RFL

luminaires from Schuch.

Controllers and sensors which do not comply with the D4i standard can limit the functionality of the luminaires and components. Moreover, in individual cases, such non-certified components may cause damage to both the luminaires and the components.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

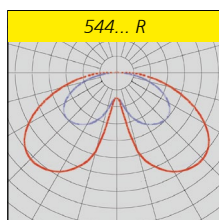
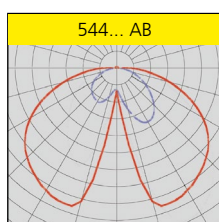
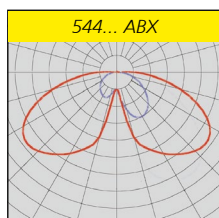
ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.



Options:

- 3,000 K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)

- optics for cycle track (RWX)
- seawater-resistant version (SWP)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- with increased luminous flux
- special painting in RAL colours (SL)

Product highlights:

- subsequent use of a lighting management system possible at any time
- tool-free, quick assembly of the light management system components
- standardized Zhaga compliant socket allows free choice of light management system
- ECG with surge voltage resistance 10kV
- optimized thermal management due to direct adaption of the LED-modules to the housing
- lifetime $L_{90} > 100,000h$
- long-lasting, corrosion resistant aluminium housing with plain surface
- optimal light distribution due to highly efficient lens optics
- **easy to install, to maintain and to retrofit**
 - removable upper part of the housing allows time- and cost-saving mounting, mains connection terminal within the supporting section
 - fast maintenance due to an easily interchangeable gear-tray system (modular concept) within the supporting section, ECG can be replaced on-site
 - upgrades or converts in regards to technical development of the LED without problems by change of the upper part of the housing, after the change of the LED-modules the upper part of the housing can be used again
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga) and Socket

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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544... ABX RFLO



with a socket on the top side of the luminaire

asymmetrical extremely wide beam

54402 0005	544 0803ABX RFLO	18	2.310	128	9,5
54402 0006	544 1603ABX RFLO	35	4.590	131	9,6
54402 0007	544 2403ABX RFLO	53	6.860	129	9,7

544... AB RFLO



with a socket on the top side of the luminaire

asymmetrical wide beam distribution

54402 0002	544 0803AB RFLO	18	2.310	128	9,5
54402 0003	544 1603AB RFLO	35	4.590	131	9,6
54402 0004	544 2403AB RFLO	53	6.860	129	9,7

544... R RFLO



with a socket on the top side of the luminaire

symmetrical circular beam

54402 0008	544 0803R RFLO	18	2.310	128	9,5
54402 0009	544 1603R RFLO	35	4.590	131	9,6
54402 0010	544 2403R RFLO	53	6.860	129	9,7

Also available with output reduction LA or constant luminous flux function CL as well as combinations of these functions CL LA.

RFL LIMAS HUB3



RFL DS20 HUB 20lux ON/OFF



LIMAS USB-Dongle



LIMAS Gateway 3 EU



System components

Article No.	Type	
90546 9009	RFL LIMAS HUB3	control element
90546 9010	RFL LIMAS HUB3 GPS	control element with GPS
90546 9000	RFL DS20 HUB 20lux ON/OFF	Twilight switch

Other sensors, e.g. environmental sensors (fine dust, CO₂, weather station etc.) on request.

Control components

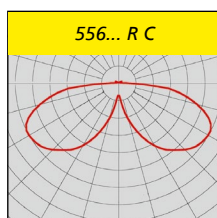
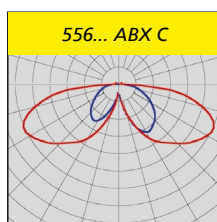
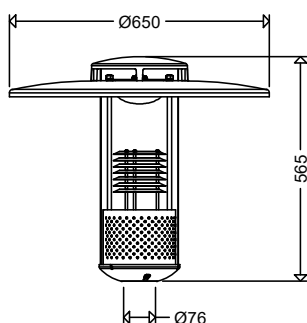
Article No.	Type	
90545 0001	LIMAS USB-Dongle	For setting up / programming or retrospectively adapting the light fittings in the field
90545 0004	LIMAS Gateway 3 EU	For extensive monitoring and control of the light fittings from afar with a SIM card via the mobile network or Ethernet (LAN / WLAN) including data logging functionality

Accessories / Spare Parts

Article No.	Type	
90544 9000	10044	spare glass PMMA frosted
90113 0002	HA 08	backside light shielding for 544 08..
90113 0003	HA 16	backside light shielding for 544 16..
90113 0004	HA 24	backside light shielding for 544 24..
90113 0005	HA 32	backside light shielding for 544 32..



Picture: Special paint colour RAL 9005



without frosted cover



without louver stack
(C OR)



without frosted cover/louver
stack (OR)

CUPINA LED Pole-Top Light Fitting Series 556... C

Applications:

556... ABX:

Residential areas, residential and side streets, low traffic areas, footpaths and cycle tracks etc.

556... R:

Promenades, public parks, pedestrian areas etc.

Design :

Roof and supporting section: Aluminium, powder-coated DB 702 (mica-iron paint, grey).

Cover: PMMA, clear, cylindrical.

Electrical kit: Wired ready for installation,

plug-type device to the mains connection terminal, cable retainer for connection cable, with LED module, frosted cover, heat sink and ECG.

Light distribution: Asymmetrical extremely wide beam (ABX) or circular beam (R). Optics and anodized pure aluminium louver stack, frosted cover for glare limitation.

Mounting system: 3 non-corrosive steel locking screws serve for fixation on straight poles Ø 76 mm. + (RZ 1) for pole end Ø of 60 mm (see accessories / spare parts).

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- without frosted cover (appr. 10% higher luminous flux)
- without louver stack (OR)
- satined cover with shielding on the building side
- for connection to group or central battery systems (ZB) or emergency mains respectively
- seawater-resistant version (SWP)
- Light Management System (LIMAS) in protection class I (SKI)
- Ready for Light Management Systems (RFL) only in combination with (OR)
- special painting in RAL colours (SL)

Product highlights:

- ECG with high surge voltage resistance, reliable due to overload and short circuit protection
- optimal light distribution due to direct beam LED with highly efficient optics
- excellent glare limitation due to frosted cover of the LED module
- homogeneous illumination due to Multi-Layer technology i.e. every individual LED illuminates the total area, the light curves of the individual LEDs are overlapping. Any failure of a particular single LED will not create any dark zones in the road. The uniformity of the illumination is kept
- quick maintenance and change of components due to an easily interchangeable gear-tray system (modular concept)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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556... C



asymmetrical extremely wide beam

11556 0060	556 0801ABX C	9		1.150	128	6,7
11556 0061	556 0802ABX C	13		1.560	120	6,7
11556 0062	556 0803ABX C	18		2.100	117	6,7
11556 0063	556 1601ABX C	17		2.300	135	6,8
11556 0064	556 1602ABX C	25		3.070	123	6,8
11556 0107	556 1603ABX C	35		4.100	117	6,8
11556 0066	556 0801ABX C CL	8	9	1.040	130	6,7
11556 0067	556 0802ABX C CL	12	13	1.400	117	6,7
11556 0068	556 0803ABX C CL	16	18	1.890	118	6,7
11556 0069	556 1601ABX C CL	15	17	2.070	138	6,8
11556 0070	556 1602ABX C CL	23	25	2.760	120	6,8
11556 0108	556 1603ABX C CL	32	35	3.690	115	6,8

symmetrical circular beam

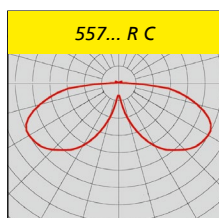
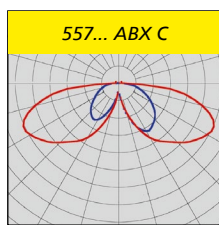
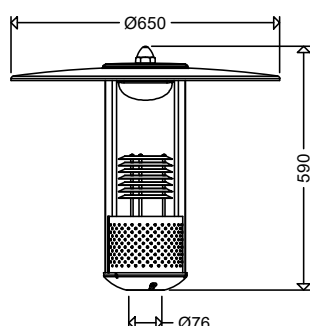
11556 0078	556 0801R C	9		1.150	128	6,7
11556 0079	556 0802R C	13		1.560	120	6,7
11556 0080	556 0803R C	18		2.100	117	6,7
11556 0081	556 1601R C	17		2.300	135	6,8
11556 0082	556 1602R C	25		3.070	123	6,8
11556 0083	556 1603R C	35		4.100	117	6,8
11556 0084	556 0801R C CL	8	9	1.040	130	6,7
11556 0085	556 0802R C CL	12	13	1.400	117	6,7
11556 0086	556 0803R C CL	16	18	1.890	118	6,7
11556 0087	556 1601R C CL	15	17	2.070	138	6,8
11556 0088	556 1602R C CL	23	25	2.760	120	6,8
11556 0109	556 1603R C CL	32	35	3.690	115	6,8

! Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).



Accessories / Spare Parts

Article no.	Type	
10051 9000	10051	clear PMMA glass cover, cylindrical.
10041 9001	10041 C	frosted cover for glare limitation
90113 0002	HA 08	backside light shielding for 556 08.. C
90113 0003	HA 16	backside light shielding for 556 16.. C
90116 9003	RS LED	louver stack, aluminium, LED design for series 543/553/556...
90126 0001	RZ 1 RAL9005	adapter for pole-top Ø 60mm



without frosted cover



without louver stack
(C OR)



without frosted cover/louver
stack (OR)

PLaneo LED Pole-Top Light Fitting Series 557... C

Applications:

557... ABX:

Residential areas, residential and side streets, low traffic areas, footpaths and cycle tracks etc.

557... R:

Promenades, public parks, pedestrian areas etc.

Design :

Roof and supporting section: Aluminium, powder-coated DB 702 (mica-iron paint, grey).

Cover: PMMA, clear, cylindrical.

Electrical kit: Wired ready for installation,

plug-type device to the mains connection terminal, cable retainer for connection cable, with LED module, frosted cover, heat sink and ECG.

Light distribution: Asymmetrical extremely wide beam (ABX) or circular beam (R). LED optics and anodized pure aluminium louver stack.

Mounting system: 3 non-corrosive steel locking screws serve for fixation on straight poles Ø 76 mm. + (RZ 1) for pole end Ø of 60 mm (see accessories / spare parts).

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- without frosted cover (appr. 10% higher luminous flux)
- without louver stack (OR)
- satined cover with shielding on the building side
- for connection to group or central battery systems (ZB) or emergency mains respectively
- seawater-resistant version (SWP)
- Light Management System (LIMAS) in protection class I (SKI)
- Ready for Light Management Systems (RFL) only in combination with (OR)
- special painting in RAL colours (SL)

Product highlights:

- ECG with high surge voltage resistance, reliable due to overload and short circuit protection
- optimal light distribution due to direct beam LED with highly efficient optics
- excellent glare limitation due to frosted cover of the LED module
- homogeneous illumination due to Multi-Layer technology i.e. every individual LED illuminates the total area, the light curves of the individual LEDs are overlapping. Any failure of a particular single LED will not create any dark zones in the road. The uniformity of the illumination is kept
- quick maintenance and change of components due to an easily interchangeable gear-tray system (modular concept)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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557... C



asymmetrical extremely wide beam

55700 0041	557 0802ABX C	13		1.560	120	5,9
55700 0042	557 0803ABX C	18		2.100	117	5,9
55700 0043	557 1601ABX C	17		2.300	135	6,0
55700 0044	557 1602ABX C	25		3.070	123	6,0
55700 0075	557 1603ABX C	35		4.100	117	6,0
55700 0017	557 0801ABX C CL	8	9	1.040	130	5,9
55700 0047	557 0802ABX C CL	12	13	1.400	117	5,9
55700 0048	557 0803ABX C CL	16	18	1.890	118	5,9
55700 0049	557 1601ABX C CL	15	17	2.070	138	6,0
55700 0050	557 1602ABX C CL	23	25	2.760	120	6,0
55700 0076	557 1603ABX C CL	32	35	3.690	115	6,0

symmetrical circular beam

55700 0059	557 0802R C	13		1.560	120	5,9
55700 0060	557 0803R C	18		2.100	117	5,9
55700 0061	557 1601R C	17		2.300	135	6,0
55700 0062	557 1602R C	25		3.070	123	6,0
55700 0064	557 1603R C	35		4.100	117	6,0
55700 0018	557 0801R C CL	8	9	1.040	130	5,9
55700 0065	557 0802R C CL	12	13	1.400	117	5,9
55700 0066	557 0803R C CL	16	18	1.890	118	5,9
55700 0067	557 1601R C CL	15	17	2.070	138	6,0
55700 0068	557 1602R C CL	23	25	2.760	120	6,0
55700 0077	557 1603R C CL	32	35	3.690	115	6,0

! Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).



Accessories / Spare Parts

Article no.	Type	
10051 9000	10051	clear PMMA glass cover, cylindrical.
10041 9001	10041 C	frosted cover for glare limitation
90113 0002	HA 08	backside light shielding for 557 08.. C
90113 0003	HA 16	backside light shielding for 557 16.. C
90116 9003	RS LED	louver stack, aluminium, LED design for series 543/553/556/557...
90126 0001	RZ 1 RAL9005	adapter for pole-top Ø 60mm

CILA

LED Pole-Top Light Fitting

Series 558... C

Applications:

558... ABX:

Residential areas, residential and side streets, low traffic areas, footpaths and cycle tracks etc.

558... R:

Promenades, public parks, pedestrian areas etc.

Design :

Roof and supporting section: Aluminium, powder-coated DB 702 (mica-iron paint, grey).

Cover: PMMA, clear, cylindrical.

Electrical kit: Wired ready for installation,

plug-type device to the mains connection terminal, cable retainer for connection cable, with LED module, frosted cover, heat sink and ECG.

Light distribution: Asymmetrical extremely wide beam (ABX) or circular beam (R).

Optics and anodized pure aluminium louver stack, frosted cover for glare limitation.

Mounting system: 3 non-corrosive steel locking screws serve for fixation on straight poles Ø 76 mm. + (RZ 1) for pole end Ø of 60 mm (see accessories / spare parts).

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

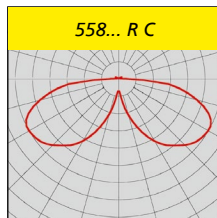
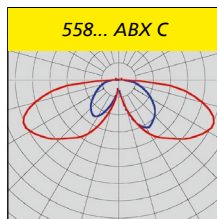
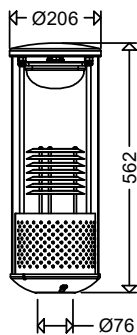
Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- without frosted cover (appr. 10% higher luminous flux)
- without louver stack (OR)
- satinized cover with shielding on the

- building side
- for connection to group or central battery systems (ZB) or emergency mains respectively
- seawater-resistant version (SWP)
- Light Management System (LIMAS) in protection class I (SKI)
- Ready for Light Management Systems (RFL) only in combination with (OR)
- special painting in RAL colours (SL)



without frosted cover



without louver stack
(C OR)



without frosted cover/louver
stack (OR)

Product highlights:

- ECG with high surge voltage resistance, reliable due to overload and short circuit protection
- optimal light distribution due to direct beam LED with highly efficient optics
- excellent glare limitation due to frosted cover of the LED module
- homogeneous illumination due to Multi-Layer technology i.e. every individual LED illuminates the total area, the light curves of the individual LEDs are overlapping. Any failure of a particular single LED will not create any dark zones in the road. The uniformity of the illumination is kept
- quick maintenance and change of components due to an easily interchangeable gear-tray system (modular concept)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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558... C



asymmetrical extremely wide beam

55800 0001	558 0801ABX C	9		1.150	128	4,7
55800 0002	558 0802ABX C	13		1.560	120	4,7
55800 0003	558 0803ABX C	18		2.100	117	4,7
55800 0013	558 1601ABX C	17		2.300	135	4,8
55800 0014	558 1602ABX C	25		3.070	123	4,8
55800 0025	558 1603ABX C	35		4.100	117	4,8
55800 0004	558 0801ABX C CL	8	9	1.040	130	4,7
55800 0005	558 0802ABX C CL	12	13	1.400	117	4,7
55800 0006	558 0803ABX C CL	16	18	1.890	118	4,7
55800 0015	558 1601ABX C CL	15	17	2.070	138	4,8
55800 0016	558 1602ABX C CL	23	25	2.760	120	4,8
55800 0026	558 1603ABX C CL	32	35	3.690	115	4,8

symmetrical circular beam

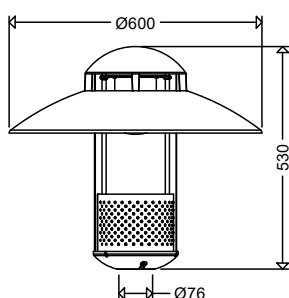
55800 0007	558 0801R C	9		1.150	128	4,7
55800 0008	558 0802R C	13		1.560	120	4,7
55800 0009	558 0803R C	18		2.100	117	4,7
55800 0017	558 1601R C	17		2.300	135	4,8
55800 0018	558 1602R C	25		3.070	123	4,8
55800 0027	558 1603R C	35		4.100	117	4,8
55800 0010	558 0801R C CL	8	9	1.040	130	4,7
55800 0011	558 0802R C CL	12	13	1.400	117	4,7
55800 0012	558 0803R C CL	16	18	1.890	118	4,7
55800 0019	558 1601R C CL	15	17	2.070	138	4,8
55800 0020	558 1602R C CL	23	25	2.760	120	4,8
55800 0028	558 1603R C CL	32	35	3.690	115	4,8

Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).



Accessories / Spare Parts

Article no.	Type	
10051 9000	10051	clear PMMA glass cover, cylindrical.
10041 9001	10041 C	frosted cover for glare limitation
90113 0002	HA 08	backside light shielding for 558 08.. C
90113 0003	HA 16	backside light shielding for 558 16.. C
90116 9003	RS LED	louver stack, aluminium, LED design for series 543/553/556/558...
90126 0001	RZ 1 RAL9005	adapter for pole-top Ø 60mm



LED Pole-Top Light Fitting Series 541... C OR

Applications:

541... /ABX:

Residential areas, residential and side streets, low traffic areas, footpaths and cycle tracks etc.

541... /R:

Promenades, public parks, pedestrian areas etc.

Design:

Supporting section, roof and top cover:

Aluminium powder coated in jet black (RAL 9005).

Glass cover: Clear, acrylic glass (PMMA).

Electrical kit:

Wired ready for installation, plug-type device to the mains connection terminal, cable retainer for connection cable, with LED module, heat sink and ECG.

Light distribution: Asymmetrical extremely wide beam (ABX) or symmetrical circular beam (R). Frosted cover for glare limitation.

Mounting system: 3 non-corrosive steel locking screws serve for fixation on straight pole end Ø of 76mm. Adapter (RZ 1) for pole end Ø of 60mm (see accessories).

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

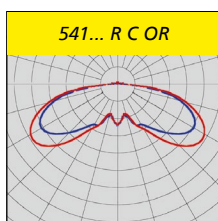
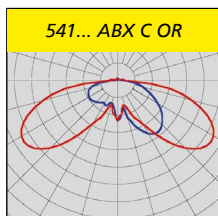
Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- without frosted cover for glare limitation (appr. 7% higher luminous flux)
- with louver stack (appr. 8% lower luminous flux)
- satined cover with shielding on the building side
- for connection to group or central battery systems (ZB) or emergency mains respectively
- seawater-resistant version (SWP)
- Light Management System (LIMAS) in protection class I (SKI)
- Ready for Light Management Systems (RFL) only in combination with (OR)
- special painting in RAL colours (SL)



with louver stack
(C)



without frosted cover



without frosted cover/louver
stack (OR)

Product highlights:

- ECG with high surge voltage resistance, reliable due to overload and short circuit protection
- optimal light distribution due to direct beam LED with highly efficient optics
- excellent glare limitation due to frosted cover of the LED module
- homogeneous illumination due to Multi-Layer technology i.e. every individual LED illuminates the total area, the light curves of the individual LEDs are overlapping. Any failure of a particular single LED will not create any dark zones in the road. The uniformity of the illumination is kept
- quick maintenance and change of components due to an easily interchangeable gear-tray system (modular concept)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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541... C OR



asymmetrical extremely wide beam

11541 0102	541 0801ABX C OR	9		1.150	128	7,1
11541 0103	541 0802ABX C OR	13		1.560	120	7,1
11541 0104	541 0803ABX C OR	18		2.100	117	7,1
11541 0105	541 1601ABX C OR	17		2.300	135	7,2
11541 0106	541 1602ABX C OR	25		3.070	123	7,2
11541 0107	541 1603ABX C OR	35		4.100	117	7,2
11541 0108	541 0801ABX C OR CL	8	9	1.040	130	7,1
11541 0109	541 0802ABX C OR CL	12	13	1.400	117	7,1
11541 0110	541 0803ABX C OR CL	16	18	1.890	118	7,1
11541 0111	541 1601ABX C OR CL	15	17	2.070	138	7,2
11541 0112	541 1602ABX C OR CL	23	25	2.760	120	7,2
11541 0113	541 1603ABX C OR CL	32	35	3.690	115	7,2

symmetrical circular beam

11541 0120	541 0801R C OR	9		1.150	128	7,1
11541 0121	541 0802R C OR	13		1.560	120	7,1
11541 0122	541 0803R C OR	18		2.100	117	7,1
11541 0123	541 1601R C OR	17		2.300	135	7,2
11541 0124	541 1602R C OR	25		3.070	123	7,2
11541 0125	541 1603R C OR	35		4.100	117	7,2
11541 0126	541 0801R C OR CL	8	9	1.040	130	7,1
11541 0127	541 0802R C OR CL	12	13	1.400	117	7,1
11541 0128	541 0803R C OR CL	16	18	1.890	118	7,1
11541 0129	541 1601R C OR CL	15	17	2.070	138	7,2
11541 0130	541 1602R C OR CL	23	25	2.760	120	7,2
11541 0131	541 1603R C OR CL	32	35	3.690	115	7,2

! Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).



Accessories / Spare Parts

Article no.	Type	
10041 9000	10041	spare cover
10041 9001	10041 C	glare limitation cover
90113 0002	HA 08	backside light shielding for 541 08.. C OR
90113 0003	HA 16	backside light shielding for 541 16.. C OR
90116 9002	RS 541 LED	louver stack, aluminium
90126 0001	RZ 1 RAL9005	adapter for pole-top ø of 60 mm, black

LED Pole-Top Light Fitting Series 543... C

Applications:

543... ABX:

Residential areas, residential and side streets, low traffic areas, footpaths and cycle tracks etc.

543... R:

Promenades, public parks, pedestrian areas etc.

Design :

Roof: Glass fibre reinforced polyester resin with integrated insert nut (colour: similar to RAL 7035).

Supporting section: Aluminium powder coated light grey (RAL 7035).

Cover: PMMA, clear, conical.

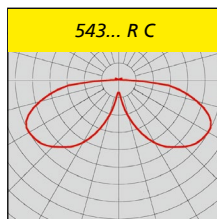
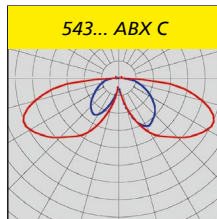
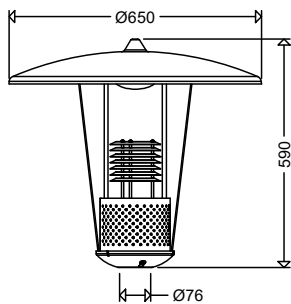
Louver stack: Anodized pure aluminium.

Electrical kit: Wired ready for installation, plug-type device to the mains connection terminal, cable retainer for connection cable, with LED module, heat sink and ECG.

Light distribution: Asymmetrical extremely wide beam (ABX) or circular beam (R).

Anodized pure aluminium louver stack, frosted cover for glare limitation.

Mounting system: 3 non-corrosive steel locking screws serve for fixation on straight poles Ø 76 mm. Adapter (RZ 1) for pole end Ø of 60 mm (see accessories / spare parts).



Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- without frosted cover (appr. 10% higher luminous flux)
- without louver stack (OR)
- satinised cover with shielding on the building side
- for connection to group or central battery systems (ZB) or emergency mains respectively
- seawater-resistant version (SWP)
- Light Management System (LIMAS) in protection class I (SKI)
- Ready for Light Management Systems (RFL) only in combination with (OR)
- aluminium roof, standard colour RAL 7035 (series 543... ALU)
- special painting in RAL colours (SL)



without frosted cover



without louver stack
(C OR)



without frosted cover/louver
stack (OR)

Product highlights:

- ECG with high surge voltage resistance, reliable due to overload and short circuit protection
- optimal light distribution due to direct beam LED with highly efficient optics
- excellent glare limitation due to frosted cover of the LED module
- homogeneous illumination due to Multi-Layer technology i.e. every individual LED illuminates the total area, the light curves of the individual LEDs are overlapping. Any failure of a particular single LED will not create any dark zones in the road. The uniformity of the illumination is kept
- quick maintenance and change of components due to an easily interchangeable gear-tray system (modular concept)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

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Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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543... C



asymmetrical extremely wide beam

11543 0030	543 0801ABX C	9		1.150	128	7,0
11543 0033	543 0802ABX C	13		1.560	120	7,0
11543 0046	543 0803ABX C	18		2.100	117	7,0
11543 0010	543 1601ABX C	17		2.300	135	7,1
11543 0055	543 1602ABX C	25		3.070	123	7,1
11543 0015	543 1603ABX C	35		4.100	117	7,1
11543 0154	543 0801ABX C CL	8	9	1.040	130	7,0
11543 0047	543 0802ABX C CL	12	13	1.400	117	7,0
11543 0048	543 0803ABX C CL	16	18	1.890	118	7,0
11543 0036	543 1601ABX C CL	15	17	2.070	138	7,1
11543 0038	543 1602ABX C CL	23	25	2.760	120	7,1
11543 0173	543 1603ABX C CL	32	35	3.690	115	7,1

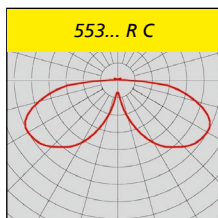
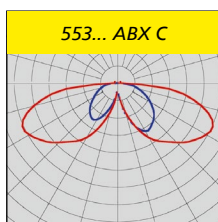
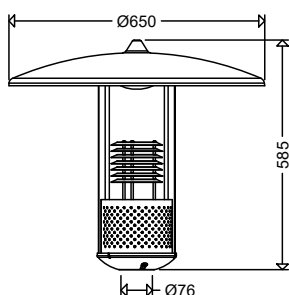
symmetrical circular beam

11543 0070	543 0801R C	9		1.150	128	7,0
11543 0071	543 0802R C	13		1.560	120	7,0
11543 0072	543 0803R C	18		2.100	117	7,0
11543 0039	543 1601R C	17		2.300	135	7,1
11543 0056	543 1602R C	25		3.070	123	7,1
11543 0019	543 1603R C	35		4.100	117	7,1
11543 0155	543 0801R C CL	8	9	1.040	130	7,0
11543 0073	543 0802R C CL	12	13	1.400	117	7,0
11543 0074	543 0803R C CL	16	18	1.890	118	7,0
11543 0075	543 1601R C CL	15	17	2.070	138	7,1
11543 0045	543 1602R C CL	23	25	2.760	120	7,1
11543 0174	543 1603R C CL	32	35	3.690	115	7,1

! Also available with output reduction (LR / LA)) as well as combinations of these functions (CL LR / CL LA).

Accessories / Spare Parts

Article no.	Type	
10043 9000	10043	clear PMMA glass cover, conical
10041 9001	10041 C	glare limitation cover
90113 0002	HA 08	backside light shielding for 543 08.. C
90113 0003	HA 16	backside light shielding for 543 16.. C
90127 9000	DACH 542/43 AL	spare roof, aluminium, for light fittings with separate cover nut
90116 9003	RS LED	louver stack, aluminium, LED design for series 543/553...
90044 0001	RZ 1 RAL7035	adapter for pole-top ø 60mm



without frosted cover



without louver stack
(C OR)



without frosted cover/louver
stack (OR)

LED Pole-Top Light Fitting Series 553... C

Applications:

553... ABX:

Residential areas, residential and side streets, low traffic areas, footpaths and cycle tracks etc.

553... R:

Promenades, public parks, pedestrian areas etc.

Design :

Roof: Glass fibre reinforced polyester resin with integrated insert nut (colour: similar to RAL 7035).

Supporting section: Aluminium powder coated light grey (RAL 7035).

Cover: PMMA, clear, cylindrical.

Electrical kit: Wired ready for installation, plug-type device to the mains connection terminal, cable retainer for connection cable, with LED module, heat sink and ECG.

Light distribution: Asymmetrical extremely wide beam (ABX) or circular beam (R). Anodized pure aluminium louver stack, frosted cover for glare limitation.

Mounting system: 3 non-corrosive steel locking screws serve for fixation on straight poles Ø 76 mm. Adapter (RZ 1) for pole end Ø of 60 mm (see accessories / spare parts).

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_3 > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class I (SKI)
- without frosted cover (appr. 10% higher luminous flux)
- without louver stack OR
- satined cover with shielding on the building side
- for connection to group or central battery systems (ZB) or emergency mains respectively
- seawater-resistant version (SWP)
- Light Management System (LIMAS) protection class I (SKI)
- Ready for Light Management Systems (RFL) only in combination with (OR)
- aluminium roof, standard colour RAL 7035 (series 553... ALU)
- special painting in RAL colours (SL)

Product highlights:

- ECG with surge voltage resistance, reliable due to overload and short circuit protection
- optimal light distribution due to direct beam LED with highly efficient optics
- excellent glare limitation due to frosted cover of the LED module
- homogeneous illumination due to Multi-Layer technology i.e. every individual LED illuminates the total area, the light curves of the individual LEDs are overlapping. Any failure of a particular single LED will not create any dark zones in the road. The uniformity of the illumination is kept
- quick maintenance and change of components due to an easily interchangeable gear-tray system (modular concept)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

! Properties, limitations and details for controlling LED-light fittings:

■ See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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553... C



asymmetrical extremely wide beam

11553 0050	553 0801ABX C	9		1.150	128	7,0
11553 0051	553 0802ABX C	13		1.560	120	7,0
11553 0052	553 0803ABX C	18		2.100	117	7,0
11553 0053	553 1601ABX C	17		2.300	135	7,1
11553 0054	553 1602ABX C	25		3.070	123	7,1
11553 0055	553 1603ABX C	35		4.100	117	7,1
11553 0049	553 0801ABX C CL	8	9	1.040	130	7,0
11553 0057	553 0802ABX C CL	12	13	1.400	117	7,0
11553 0058	553 0803ABX C CL	16	18	1.890	118	7,0
11553 0059	553 1601ABX C CL	15	17	2.070	138	7,1
11553 0060	553 1602ABX C CL	23	25	2.760	120	7,1
11553 0080	553 1603ABX C CL	32	35	3.690	115	7,1

symmetrical circular beam

11553 0068	553 0801R C	9		1.150	128	7,0
11553 0069	553 0802R C	13		1.560	120	7,0
11553 0070	553 0803R C	18		2.100	117	7,0
11553 0071	553 1601R C	17		2.300	135	7,1
11553 0072	553 1602R C	25		3.070	123	7,1
11553 0073	553 1603R C	35		4.100	117	7,1
11553 0074	553 0801R C CL	8	9	1.040	130	7,0
11553 0075	553 0802R C CL	12	13	1.400	117	7,0
11553 0076	553 0803R C CL	16	18	1.890	118	7,0
11553 0077	553 1601R C CL	15	17	2.070	138	7,1
11553 0078	553 1602R C CL	23	25	2.760	120	7,1
11553 0087	553 1603R C CL	32	35	3.690	115	7,1

! Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).

Accessories / Spare Parts

Article no.	Type	
10051 9000	10051	clear PMMA glass cover, cylindrical, series 553...
10041 9001	10041 C	glare limitation cover
90113 0002	HA 08	backside light shielding for 553 08.. C
90113 0003	HA 16	backside light shielding for 553 16.. C
90128 9001	DACH 542/43 POL M10	spare roof, polyester, for light fittings with integrated cover nut
90127 9000	DACH 542/43 AL	spare roof, aluminium, with separate cover nut
90116 9003	RS LED	louver stack, aluminium, LED design for series 543/553...
90044 0001	RZ 1 RAL7035	adapter for pole-top Ø 60mm



Pendant LED Light Fittings

Series 564/565 ...

Applications:

Renewal of villages and historic city centres, low traffic areas, pedestrian areas, promenades, public parks.

Design:

Housing: Aluminium sheet, powder coated in deep black colour (RAL 9005).

Cover: PMMA, clear pearled (P).

Electro kit: With ECG and LED, wired

ready for connection, cable retainer for the connection cable.

Light distribution: Asymmetrical extremely wide beam (ABX) or circular beam (R).

Light diffuser: Optics.

Mounting: To pole top sections with internal thread 3/4".

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

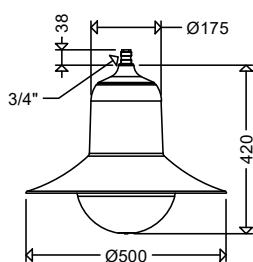
Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

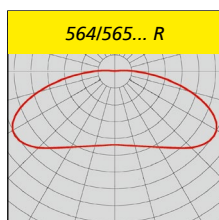
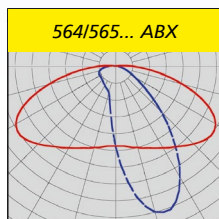
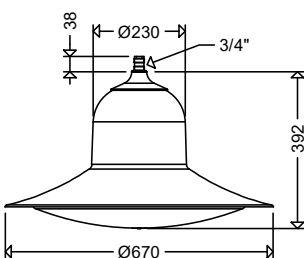
Options:

- 3,000 K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class II (SKII)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- seawater-resistant version (SWP)
- special painting in RAL colours (SL)

Series 564



Series 565



Product highlights:

- ECG with high surge voltage resistance, reliable due to overload and short circuit protection
- optimal light distribution due to highly efficient lens optics with direct beam
- good glare limitation due to pearled cover
- homogeneous illumination due to Multi-Layer technology i.e. every individual LED illuminates the total area, the light curves of the individual LEDs are overlapping. Any failure of a particular single LED will not create any dark zone in the road. The uniformity of the illumination is kept.
- quick maintenance and change of components due to an easily interchangeable gear-tray system (modular concept)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Article No.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packingmaterial)
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564/565...



Wind load area $A = 0,09m^2$

11564 0003	564 0803ABX	18	2.500	139	3,9
11564 0004	564 0803R	18	2.500	139	3,9
11564 0001	564 1603ABX	35	5.000	143	3,9
11564 0002	564 1603R	35	5.000	143	3,9

Wind load area $A = 0,12m^2$

11565 0009	565 1603ABX	35	5.000	143	5,6
11565 0005	565 1603R	35	5.000	143	5,6
11565 0010	565 3203ABX	70	9.940	142	5,7
11565 0006	565 3203R	70	9.940	142	5,7

Properties, limitations and details for controlling LED-light fittings:

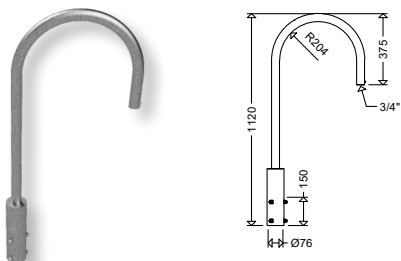
See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

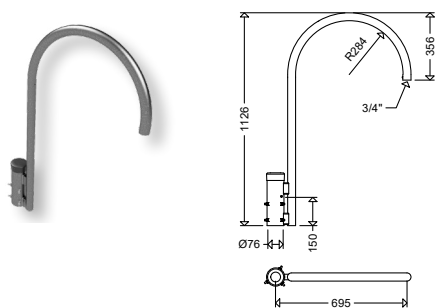
Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).



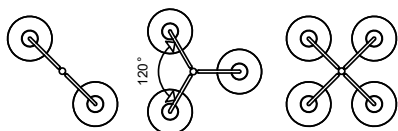
Round arch pole-top adapter



Article no.	Type	Description	Weight
61999 0001	619/1	for 1 fitting	8,8 kg



72299 0001	722/1	for 1 fitting	8,2 kg
72299 0002	722/2	for 2 fitting	14,0 kg
72299 0003	722/3	for 3 fittings	19,9 kg
72299 0004	722/4	for 4 fittings	25,7 kg



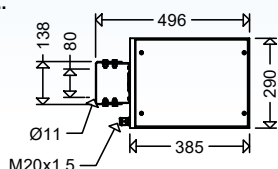
Accessories / Spare Parts

Article no.	Type	
10064 9003	10064 P LED	PMMA-glass, clear-pearled for 564... LED
10065 9001	10065 P	PMMA-glass, clear-pearled for 565... LED
90113 0002	HA 08	backside light shielding for 564/565 08..
90113 0003	HA 16	backside light shielding for 564/565 16..
90113 0005	HA 32	backside light shielding for 564/565 32..



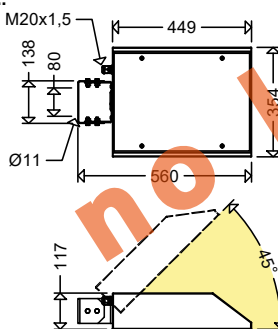
Pictures: Special paint colour DB 702 (mica-iron paint, grey)

7571...

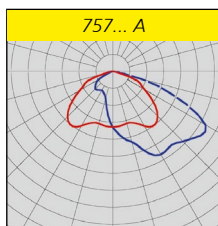


Swivel range 45°

7572...



Swivel range 45°



LED Plane Surface Floodlight Series 7571/7572... A

Applications:

Car parks, outside facilities, loading areas, illumination close to buildings, fence arrangements, gateways, object protection, safety and observation illumination.

Design:

Housing: Silumin sheet powder coated in light grey (RAL 7035), built-in control gear, wired ready for connection, with integrated venting system.

Glass: Frameless, hinged, tiltable by loosening 2 bolts, silicone gasket.

LED-tray: Aluminium, compact unit with

LED module and optics screwed to the glass, hinged.

Light distribution: Asymmetrical beam.

Connection terminal: 3-poles up to 4mm² or 4-poles version LR.

Cable entry: 1 gland M20

Mounting: Mounting bracket swivel range 180° (wall or ceiling mounting).

Pole mounting by using 7571/1 M on poles with Ø 76mm.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- Optics asymmetrical wide beam (AB)
- optics asymmetrical extremely wide beam (ABX)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)
- special painting in RAL colours (SL)

Product highlights:

- ECG with high surge voltage resistance, reliable due to overload and short circuit protection
- protection against contact of the LED board due to sandwich design of glass and reflector
- optimal light distribution due to highly efficient optics with direct beam
- homogeneous illumination due to Multi-Layer technology i.e. every individual LED illuminates the total area, the light curves of the individual LEDs are overlapping
- quick maintenance and change of components due to an easily interchangeable gear-tray system
- eco-friendly, no light pollution in the upper space, Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

! Properties, limitations and details for controlling LED-light fittings:

■ See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article no.	Type	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [kg] (without packing material)
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7571 1603A

75711 0001	7571 1603A	35		4880	139	4,1
75711 0031	7571 1603A CL	32	35	4390	137	4,1



Wind load
area
A = 0,04m²

7572 3203A

75721 0004	7572 3203A	70		9860	141	5,7
75721 0034	7572 3203A CL	63	70	8870	141	5,7



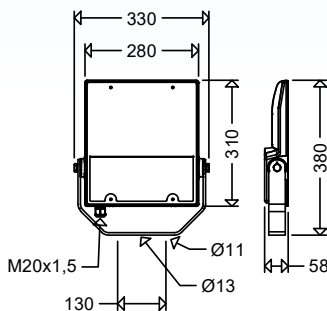
Wind load
area
A = 0,06m²

Also available with output reduction (LR / LA) as well as combinations of these functions (CL LR / CL LA).

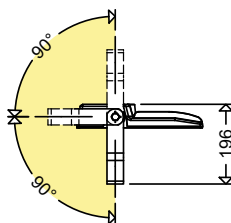


Accessories / Spare Parts

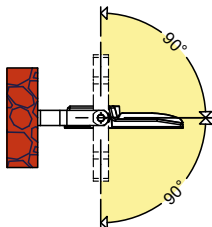
Article no.	Type	
75001 9016	7511 LED	spare glass pane 7571... LED
75001 9008	7502 LED	spare glass pane 7572... LED
25610 9000	2561	plastic cable gland M20 x 1,5
75739 9003	7571/1 M	pole top with accessories for single mounting on pole Ø 76mm
75739 9004	7571/2 M	pole top with accessories for double mounting on pole Ø 76mm



Swivel range



Standard Mounting



FOCO

LED Floodlight / Plane Surface Floodlight with variable setting of the luminous flux Series 7600... VARIO

Applications:

Industrial areas, stockyards, terminals, object protection and fence illumination, construction zone, accent lighting, illumination of building and facades etc.

Design:

Housing: Die-cast aluminium, 1-part, powder coated DB 702 (mica-iron paint, grey) with LED-Module, optics (versions TB, T and A), electronic ballast and pressure compensation system.

Glass: Flat safety glass pane, resistant to temperature changes, impact resistant IK09, silicone gasket.

Switch for setting the luminous flux in the terminal compartment, accessible from the outside.

Light distribution: With optics narrow-wide (TB), narrow (T) or asymmetrical beam (A), without optics wide beam.

Connection: Terminal compartment, accessible from the outside, 3-pole terminal, max. clamping range 2,5 mm².

Cable entry: 1 cable entry M20 x 1.5 (1 cable gland).

Mounting: Mounting bracket, swivel range 180°, with 3 drillings for wall- or ceiling mounting.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

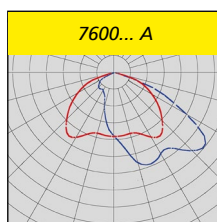
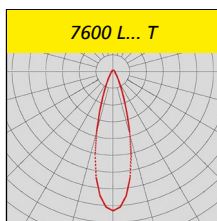
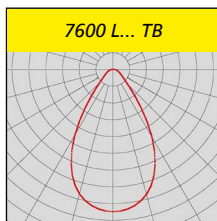
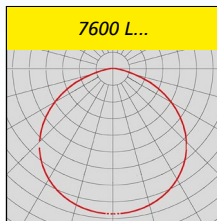
Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -40°C up to +50°C

Options:

- 3,000K, light colour 730 (8% lower light output)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (38% lower light output)
- protection class II (SKII)
- Optics asymmetrical wide beam (AB)
- Optics asymmetrical extremely wide beam (ABX)
- optics for ME-classes (AB3)
- low glare optics (ABL)
- Optics (TX) for extremely narrow beam
- high protection (HR) against corrosive atmospheres or harmful gases
- seawater-resistant version (SWP)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)
- extended swivel range (ESB)
- cable looping at 1 small side (RR)
- vibration-resistant design (RF)
- special painting in RAL colours (SL)



Product highlights:

- two types replace several conventional lights and thus reduce the variety of types
- easy, quick, tool-free adjustment of the luminous flux on site via switch in the terminal compartment, accessible from the outside, can be changed afterwards
- high flexibility by nearly continuous adjustment of the luminous flux
- quick electrical connection due to outlaying electrical connection box
- ECG with high surge voltage resistance, reliable due to overload and short circuit protection
- optimized thermal management due to direct adaption of the LED modules to the die-cast aluminium housing, large cooling surface, excellent heat dissipation
- optimal light distribution due to highly efficient lens optics
- homogeneous illumination due to the Multi-Layer-Technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled (Plane surface floodlight)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

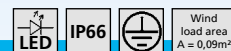
See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article no.	Type	wide beam	narrow-wide beam	narrow-beam	asymmetrical beam	Weight [ca. kg] (without packaging)	Power / consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]
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7600 ... VARIO



Floodlight

The luminous flux is variably adjustable. The Power consumption will change depending on the setting of the luminous flux. In the table, you will find examples of settings with reference to the most common conventional versions. Intermediate values are also possible. Setting table on request.

76000 0102	7600 L50 VARIO	•				3,8	9	1.120	124
76000 0104	7600 L50TB VARIO		•			3,8	15	2.230	149
76000 0106	7600 L50T VARIO			•		3,8	18	2.760 ²⁾	153
							35	4.800	137

76000 0103	7600 L100 VARIO	•				3,9	16	2.250	141
76000 0105	7600 L100TB VARIO		•			3,9	38	5.870	154
76000 0107	7600 L100T VARIO			•		3,9	54	7.740 ²⁾	143
							70	9.600	137

Plane Surface Floodlight

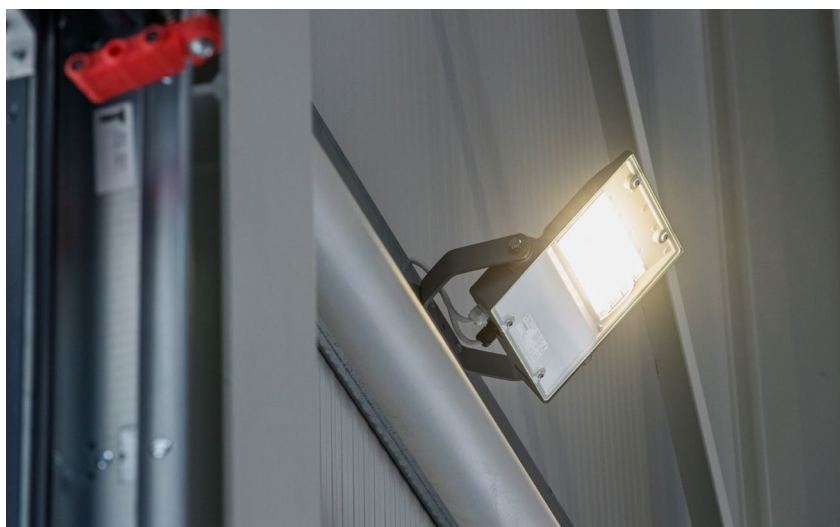
76000 0100	7600 L50A VARIO				•	3,8	9	1.120	124
							15	2.230	149
							18	2.760 ²⁾	153
							35	4.800	137

76000 0101	7600 L100A VARIO				•	3,9	16	2.250	141
							38	5.870	154
							54	7.740 ²⁾	143
							70	9.600	137

1) Examples of possible settings

2) Factory setting

! Also available with output reduction (LR / LA) or constant luminous flux function (CL) as well as combinations of these functions (CL LR / CL LA).



Accessories / Spare Parts

Article no.	Type	
76001 9000	7600/010	spare safety glas
75739 9006	7600/1 M	pole top for single mounting; galvanised steel
75739 9007	7600/2 M	pole top for dual mounting; galvanised steel
75739 9009	7600/3 M	pole top for threefold mounting; galvanised steel
75739 9008	7600/4 M	pole top for fourfold mounting; galvanised steel
90120 9011	2530	plastic cable gland M20 x 1,5 black

All pole top brackets made of galvanised steel. Painting in any RAL colour for additional charge.

NEW



FOCO

LED Floodlight / Plane Surface Floodlight with variable setting of the luminous flux

Ready for Light Management System

Series 7600... VARIO

Applications:

Industrial areas, stockyards, terminals, object protection and fence illumination, construction zone, accent lighting, illumination of building and facades etc.

Design:

The luminaires are prepared for the subsequent use of a light management system. An integrated socket allows retrofitting of light management components without tools.

Housing: Die-cast aluminium, 1-part, powder coated DB 702 (mica-iron paint, grey) with LED-Module, optics (versions TB, T), electronic ballast and pressure compensation system.

Zhaga compliant socket on the top side of the housing.

Glass: Flat safety glass pane, resistant to temperature changes, impact resistant IK09, silicone gasket.

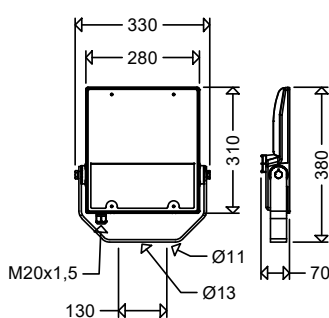
Switch for setting the luminous flux in the terminal compartment, accessible from the outside.

Light distribution: With optics narrow-wide (TB), narrow (T) or asymmetrical beam (A), without optics wide beam.

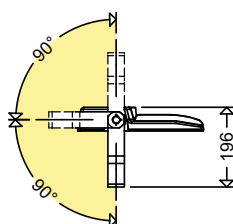
Connection: Terminal compartment, accessible from the outside, 3-pole terminal, max. clamping range 2,5 mm².

Cable entry: 1 cable entry M20 x 1.5 (1 cable gland).

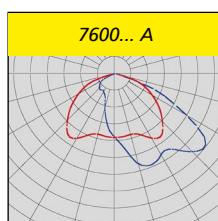
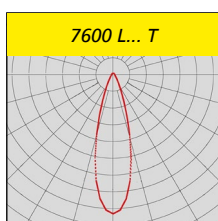
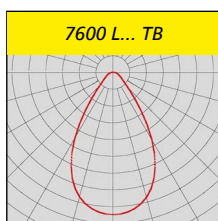
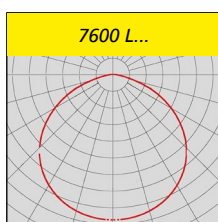
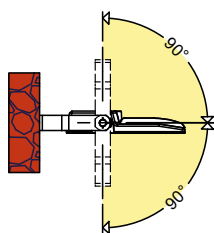
Mounting: Mounting bracket, swivel range 180°, with 3 drillings for wall- or ceiling mounting.



Swivel range



Standard Mounting



Exclusively D4i control gear is being used in RFL luminaires from Schuch. All D4i Zhaga Book 18 certified controllers and D4i Zhaga Book 18

certified sensors available on the market can be used in combination with RFL luminaires from Schuch. Controllers and sensors which do not comply with the D4i standard can limit the functionality of the luminaires and components. Moreover, in individual cases, such non-certified components may cause damage to both the luminaires and the components.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_g > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -40°C up to +50°C

Options:

- 3,000K, light colour 730 (8% lower light output)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (38% lower light output)
- protection class II (SKII)
- Optics asymmetrical wide beam (AB)
- Optics asymmetrical extremely wide beam (ABX)
- optics for ME-classes (AB3)
- low glare optics (ABL)
- Optics (TX) for extremely narrow beam
- high protection (HR) against corrosive atmospheres or harmful gases
- dimmable via DALI (DIMD)
- seawater-resistant version (SWP)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)
- cable looping at 1 small side (RR)
- special painting in RAL colours (SL)

Product highlights:

- subsequent use of a lighting management system possible at any time
- tool-free, quick assembly of the light management system components
- standardized Zhaga compliant socket allows free choice of light management system
- ECG with surge voltage resistance 10kV
- optimized thermal management due to direct adaption of the LED-modules to the housing
- lifetime $L_{90} > 100,000h$
- homogeneous illumination due to the Multi-Layer-Technology
- easy, quick, tool-free adjustment of the luminous flux on site via switch in the terminal compartment, accessible from the outside, can be changed afterwards
- high flexibility by nearly continuous adjustment of the luminous flux
- optimal light distribution due to highly efficient lens optics
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled (Plane surface floodlight)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga) and Socket

Properties, limitations and details for controlling LED-light fittings:

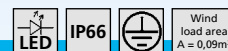
See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article no.	Type	wide beam	narrow-wide beam	narrow-beam	asymmetrical beam	Weight [ca. kg] (without packaging)	Power / consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]
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7600 ... VARIO RFLO



Floodlight with a socket on the top side of the luminaire

The luminous flux is variably adjustable. The Power consumption will change depending on the setting of the luminous flux. In the table, you will find examples of settings with reference to the most common conventional versions. Intermediate values are also possible. Setting table on request.

76002 0002	7600 L50 VARIO RFLO	•				3,8	9	1.120	124
76002 0003	7600 L50TB VARIO RFLO		•			3,8	15	2.230	149
76002 0004	7600 L50T VARIO RFLO			•		3,8	18	2.760 ²⁾	153
							35	4.800	137

Plane Surface Floodlight with a socket on the top side of the luminaire

76002 0001	7600 L50A VARIO RFLO				•	3,8	9	1.120	124
							15	2.230	149
							18	2.760 ²⁾	153
							35	4.800	137

1) Examples of possible settings

2) Factory setting

Also available with output reduction LA or constant luminous flux function CL as well as combinations of these functions CL LA.

RFL LIMAS HUB3



RFL DS20 HUB 20lux ON/OFF



LIMAS USB-Dongle



LIMAS Gateway 3 EU



System components

Article No.	Type	
90546 9009	RFL LIMAS HUB3	control element
90546 9010	RFL LIMAS HUB3 GPS	control element with GPS
90546 9000	RFL DS20 HUB 20lux ON/OFF	Twilight switch

Other sensors, e.g. environmental sensors (fine dust, CO₂, weather station etc.) on request.

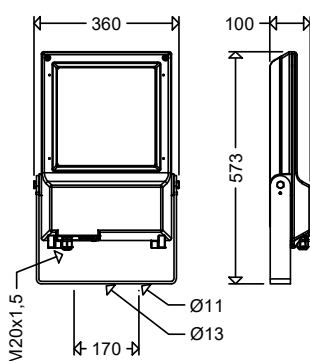
Control components

Article No.	Type	
90545 0001	LIMAS USB-Dongle	For setting up / programming or retrospectively adapting the light fittings in the field
90545 0004	LIMAS Gateway 3 EU	For extensive monitoring and control of the light fittings from afar with a SIM card via the mobile network or Ethernet (LAN / WLAN) including data logging functionality

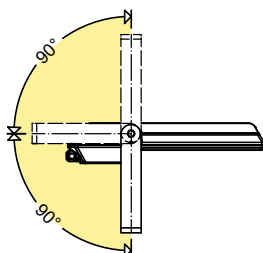
Accessories / Spare Parts

Article no.	Type	
76001 9000	7600/010	spare safety glass
75739 9006	7600/1 M	pole top for single mounting; galvanised steel
75739 9007	7600/2 M	pole top for dual mounting; galvanised steel
75739 9009	7600/3 M	pole top for threefold mounting; galvanised steel
75739 9008	7600/4 M	pole top for fourfold mounting; galvanised steel
90120 9011	2530	plastic cable gland M20 x 1,5 black

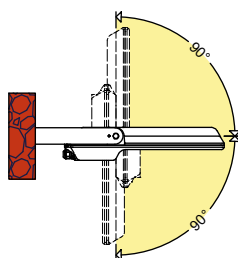
All pole top brackets made of galvanised steel. Painting in any RAL colour for additional charge.



Swivel range



Standard Mounting



FOCO L LED Floodlight / Plane Surface Floodlight Series 7700...

Applications:

Industrial areas, stockyards, terminals, construction zone, accent lighting, illumination of building and facades etc.

Design:

Housing: Die-cast aluminium, 2-parts, powder coated DB 702 (mica-iron paint, grey).

Upper part: With LED- and optics-modules

Lower part: With electronic ballast, glass cover, cable entry with cable relief and pressure compensation system, retractable.

Glass: Flat safety glass pane, resistant to

temperature changes, impact resistant IK10, silicone gasket.

Light distribution: With optics narrow-wide (TB), narrow (T) or asymmetrical beam (A), without optics wide beam.

Connection: 3-pole terminal, max. clamping range 2,5 mm².

Cable entry: 1 cable entry M20 x 1.5 (1 cable gland).

Mounting: Mounting bracket, swivel range 180°, with 3 drillings for wall- or ceiling mounting or for direct pole mounting in conjunction with pipe clamps ROB 60/76 G2 (see accessories).

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -40°C up to +40°C

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class II (SKII)
- extremely narrow beam (TX)
- asymmetrical wide beam (AB-optics)
- asymmetrical extremely wide beam (ABX)
- optics for ME-classes (AB3)
- low glare optics (ABL)
- high protection (HR) against corrosive atmospheres or harmful gases
- seawater-resistant version (SWP)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)
- extended Swivel range (ESB)
- cable looping at 1 small side (RR)
- vibration-resistant design (RF)
- special painting in RAL colours (SL)

Product highlights:

- ECG with surge voltage resistance, reliable due to overload and short circuit protection
- optimized thermal management due to direct adaption of the LED-modules to the die-cast aluminium housing, large cooling surface, excellent heat dissipation
- optimal light distribution due to highly efficient optics
- homogeneous illumination due to the Multi-Layer-Technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.
- comfortable maintenance due to removable lower part of the housing, large opening allows easy access to the terminal box and the electrical components, ECG replaceable on-site
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled (Plane surface floodlight)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

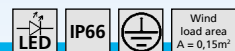
See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article no.	Type	wide beam	narrow-wide beam	narrow-beam	asymmetrical beam	Weight [ca. kg] (without packaging)	Power consumption W] (CL: start of operating life)	Power consumption W] (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]
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7700 ...



Floodlight

77000 0006	7700 3203	•				9,5	70	9.800	140
77000 0010	7700 3203TB		•			9,5			
77000 0014	7700 3203T			•		9,5			
77000 0007	7700 4803	•				9,7	106	14.700	139
77000 0011	7700 4803TB		•			9,7			
77000 0015	7700 4803T			•		9,7			
77000 0008	7700 6403	•				9,7	140	19.400	139
77000 0012	7700 6403TB		•			9,7			
77000 0016	7700 6403T			•		9,7			

Plane Surface Floodlight

77000 0002	7700 3203A			•		9,5	70		9.800	140
77000 0003	7700 4803A			•		9,7	106		14.700	139
77000 0004	7700 6403A			•		9,7	140		19.400	139
77000 0018	7700 3203A CL			•		9,5	63	70	8.820	140
77000 0019	7700 4803A CL			•		9,7	95	106	13.230	139
77000 0020	7700 6403A CL			•		9,7	126	140	17.460	139

Also available with output reduction (LR / LA) and constant luminous flux function (CL) or combinations of the functions (CL LR / CL LA)



Accessories / Spare Parts

Article no.	Type	
78001 9002	7700/010	spare safety glas
75739 9010	7700/7800/1 M	pole top for single mounting; galvanised steel
75739 9011	7700/7800/2 M	pole top for dual mounting; galvanised steel
90270 0006	ROB 60/76 G2	pipe clamp for direct pole mounting or on multiple post top adapters; galvanised steel
90120 9011	2530	plastic cable gland M20 x 1,5 black
75350 0034	SD 7700 ST	vibration absorbing suspension device for series 7700, galvanised steel

All pole top brackets made of galvanised steel. Painting in any RAL colour for additional charge.

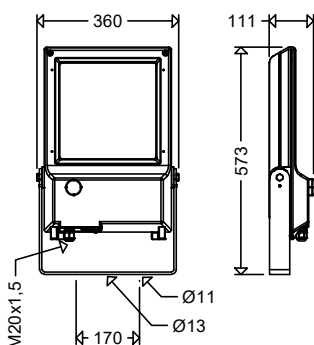
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FOCO L

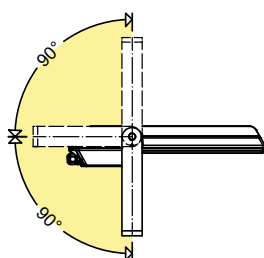
LED Floodlight / Plane Surface Floodlight

Ready for Light Management System

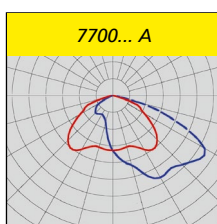
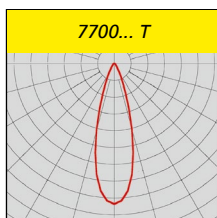
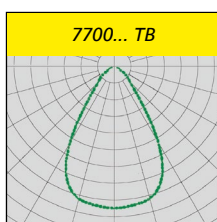
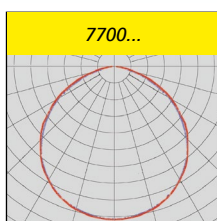
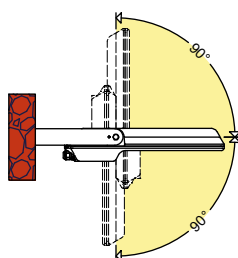
Series 7700... RFL



Swivel range



Standard Mounting



Applications:

Industrial areas, stockyards, terminals, construction zone, accent lighting, illumination of building and facades etc.

Design:

The luminaires are prepared for the subsequent use of a light management system. An integrated socket allows retrofitting of light management components without tools.

Housing: Die-cast aluminium, 2-parts, powder coated DB 702 (mica-iron paint, grey).

Upper part: With LED- and optics-modules, **Lower part:** With electronic ballast, glass cover, cable entry with cable relief and pressure compensation system, retractable.

Zhaga compliant socket on the bottom side of the housing.

Glass: Flat safety glass pane, resistant to temperature changes, impact resistant IK10, silicone gasket.

Light distribution: With optics narrow-wide (TB), narrow (T) or asymmetrical beam (A), without optics wide beam.

Connection: 3-pole terminal, max. clamping range 2,5 mm².

Cable entry: 1 cable entry M20 x 1.5 (1 cable gland).

Mounting: Mounting bracket, swivel range 180°, with 3 drillings for wall- or ceiling mounting or for direct pole mounting in conjunction with pipe clamps ROB 60/76 G2 (see accessories).



Exclusively D4i control gear is being used in RFL luminaires from Schuch.

All D4i Zhaga Book 18 certified controllers and D4i Zhaga Book 18

certified sensors available on the market can be used in combination with RFL luminaires from Schuch. Controllers and sensors which do not comply with the D4i standard can limit the functionality of the luminaires and components. Moreover, in individual cases, such non-certified components may cause damage to both the luminaires and the components.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23.00 and 5.00h CEST, also available with deviating times and with alternative dimming steps.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -40°C up to +40°C

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class II (SKII)
- extremely narrow beam (TX)
- asymmetrical wide beam (AB-optics)
- asymmetrical extremely wide beam (ABX)
- optics for ME-classes (AB3)
- low glare optics (ABL)
- high protection (HR) against corrosive atmospheres or harmful gases
- seawater-resistant version (SWP)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)
- cable looping at 1 small side (RR)
- special painting in RAL colours (SL)

Product highlights:

- subsequent use of a lighting management system possible at any time
- tool-free, quick assembly of the light management system components
- standardized Zhaga compliant socket allows free choice of light management system
- ECG with surge voltage resistance 10kV
- optimized thermal management due to direct adaption of the LED-modules to the housing
- lifetime $L_{90} > 100,000h$
- homogeneous illumination due to the Multi-Layer-Technology
- optimal light distribution due to highly efficient optics
- comfortable maintenance due to removable lower part of the housing, large opening allows easy access to the terminal box and the electrical components, ECG replaceable on-site
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled (Plane surface floodlight)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga) and Socket

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



RFL LIMAS HUB3



RFL LIMAS BM RAD HUB LPH max. 8m



RFL LIMAS BM RAD MA LPH max. 10m



RFL BM/DS IR HUB LPH max. 12m



LIMAS USB-Dongle



LIMAS Gateway 3 EU



Article no.	Type	wide beam	narrow-wide beam	narrow-beam	asymmetrical beam	Weight [ca. kg] (without packaging)	Power / consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]
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7700 ... RFLU



Floodlight with a socket on the bottom side of the luminaire

77002 0001	7700 3203 RFLU	•				9,5	70	9.800	140
77002 0007	7700 3203TB RFLU		•			9,5			
77002 0010	7700 3203T RFLU			•		9,5			
77002 0002	7700 4803 RFLU	•				9,7	106	14.700	139
77002 0008	7700 4803TB RFLU		•			9,7			
77002 0011	7700 4803T RFLU			•		9,7			
77002 0003	7700 6403 RFLU	•				9,7	140	19.400	139
77002 0009	7700 6403TB RFLU		•			9,7			
77002 0012	7700 6403T RFLU			•		9,7			

Plane Surface Floodlight with a socket on the bottom side of the luminaire

77002 0004	7700 3203A RFLU				•	9,5	70	9.800	140
77002 0005	7700 4803A RFLU				•	9,7	106	14.700	139
77002 0006	7700 6403A RFLU				•	9,7	140	19.400	139

Also available with output reduction LA or constant luminous flux function CL as well as combinations of these functions CL LA.

System components

Article No.	Type	
90546 9009	RFL LIMAS HUB3	control element
90546 9010	RFL LIMAS HUB3 GPS	control element with GPS
90546 9011	RFL LIMAS BM RAD HUB LPH max. 8m	control element / radar motion detector
90546 9012	RFL LIMAS BM RAD MA LPH max. 10m	control element / radar motion detector
90546 9006	RFL BM/DS IR HUB LPH max. 12m	infrared motion detector / twilight switch

Other sensors, e.g. environmental sensors (fine dust, CO₂, weather station etc.) on request.

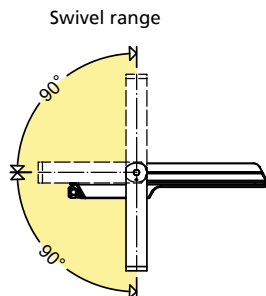
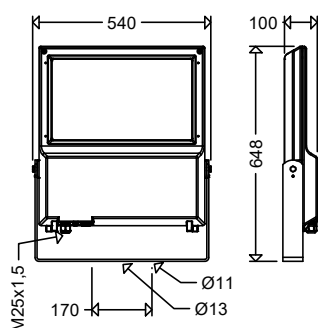
Control components

Article No.	Type	
90545 0001	LIMAS USB-Dongle	For setting up / programming or retrospectively adapting the light fittings in the field
90545 0004	LIMAS Gateway 3 EU	For extensive monitoring and control of the light fittings from afar with a SIM card via the mobile network or Ethernet (LAN / WLAN) including data logging functionality

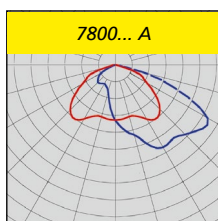
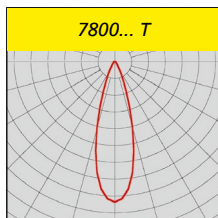
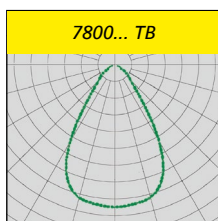
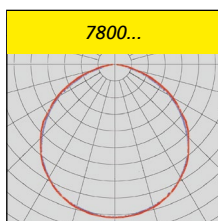
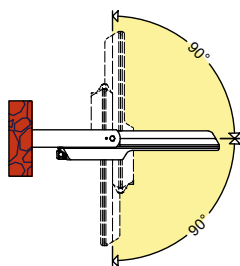
Accessories / Spare Parts

Article no.	Type	
78001 9002	7700/010	spare safety glas
75739 9010	7700/7800/1 M	pole top for single mounting; galvanised steel
75739 9011	7700/7800/2 M	pole top for dual mounting; galvanised steel
90270 0006	ROB 60/76 G2	pipe clamp for direct pole mounting or on multiple post top adapters; galvanised steel
90120 9011	2530	plastic cable gland M20 x 1,5 black
75350 0034	SD 7700 ST	vibration absorbing suspension device for series 7700, galvanised steel

All pole top brackets made of galvanised steel. Painting in any RAL colour for additional charge.



Standard Mounting



FOCO XL LED Floodlight / Plane Surface Floodlight Series 7800...

Applications:

Industrial areas, large equipment for open-cast mining, stockyards, installation areas, object protection and fence lighting, construction zone, illumination of building and facades etc.

Design:

Housing: Die-cast aluminium, 2-parts, powder coated DB 702 (mica-iron paint, grey).

Upper part: With LED- and optics-modules

Lower part: With electronic ballast, glass cover, cable entry with cable relief and pressure compensation system, retractable.

Glass: Flat safety glass pane, resistant to temperature changes, impact resistant IK09, silicone gasket.

Light distribution: With optics narrow-wide (TB), narrow (T) or asymmetrical beam (A), without optics wide beam.

Connection: 3-pole terminal, max. clamping range 2,5 mm².

Cable entry: 1 cable entry M25 x 1.5 (1 cable gland).

Mounting: Mounting bracket, swivel range 180°, with 3 drillings for wall- or ceiling mounting or for direct pole mounting in conjunction with pipe clamps

ROB 60/76 G2 (see accessories).

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction with control phase (LR): For reducing the luminous flux to 50% at times of low traffic density. Control phase (LST) required. Switching via control phase (LST = 230V: 100%; LST = 0V: 50%). Alternative dimming levels possible.

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -40°C up to +40°C

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class II (SKII)
- asymmetrical wide beam (AB-optics)
- asymmetrical extremely wide beam (ABX)
- optics for ME-classes (AB3)
- low glare optics (ABL)
- extremely narrow beam (TX)
- high protection (HR) against corrosive atmospheres or harmful gases
- seawater-resistant version (SWP)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)
- Light Management System (LIMAS) in protection class I (SKI)
- extended Swivel range (ESB)
- cable looping at 1 small side (RR)
- vibration-resistant design (RF)
- special painting in RAL colours (SL)

Product highlights:

- ECG with surge voltage resistance, reliable due to overload and short circuit protection
- optimized thermal management due to direct adaption of the LED-modules to the die-cast aluminium housing, large cooling surface, excellent heat dissipation
- optimal light distribution due to highly efficient optics
- homogeneous illumination due to the Multi-Layer-Technology i.e. every individual LED illuminates the whole surface, the light curves of the individual LEDs are overlapping.
- comfortable maintenance due to removable lower part of the housing, large opening allows easy access to the terminal box and the electrical components, ECG replaceable on-site
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled (Plane surface floodlight)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

! Properties, limitations and details for controlling LED-light fittings:
See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article no.	Type	wide beam	narrow-wide beam	narrow-beam	asymmetrical beam	Weight [ca. kg] (without packaging)	Power consumption WJ (CL: start of operating life)	Power consumption WJ (end of operating life)	Luminous flux [lm]	Luminous efficacy [lm/W]
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7800 ...



Floodlight

78000 0011	7800 6403	•				15,9	140	19.900	142
78000 0001	7800 6403TB		•			15,9			
78000 0041	7800 6403T			•		15,9			
78000 0012	7800 12803 ¹⁾	•				17,0	280	38.300	137
78000 0002	7800 12803TB ¹⁾		•			17,0			
78000 0042	7800 12803T ¹⁾			•		17,0			

Plane Surface Floodlight

78000 0021	7800 6403A			•	1	15,9	140		19.900	142
78000 0022	7800 12803A ¹⁾			•	2	17,0	280		38.300	137
78000 0024	7800 6403A CL			•	1	15,9	126	140	17.910	142
78000 0025	7800 12803A CL ¹⁾			•	2	17,0	252	280	34.470	137

1) ENEC / VDE certified

! Also available with output reduction (LR) and constant luminous flux function (CL) or combinations of the functions (CL LR / CL LA)



Accessories / Spare Parts

Article no.	Type	
78001 9001	7800/010	spare safety glas
75739 9010	7700/7800/1 M	pole top for single mounting; galvanised steel
75739 9011	7700/7800/2 M	pole top for dual mounting; galvanised steel
90270 0006	ROB 60/76 G2	pipe clamp for direct pole mounting or on multiple post top adapters; galvanised steel
90117 9000	2537	plastic cable gland M25 x 1,5 black
75350 0033	SD 7800 ST	vibration absorbing suspension device for series 7800, galvanised steel

All pole top brackets made of galvanised steel. Painting in any RAL colour for additional charge.



NEW

FOCO XL Plane Surface Floodlight Ready for Light Management System Series 7800... RFL

Applications:

Industrial areas, large equipment for open-cast mining, stockyards, installation areas, object protection and fence lighting, construction zone, illumination of building and facades etc.

Design:

The luminaires are prepared for the subsequent use of a light management system. An integrated socket allows retrofitting of light management components without tools.

Housing: Die-cast aluminium, 2-parts, powder coated DB 702 (mica-iron paint, grey).

Upper part: With LED- and optics-modules, **Lower part:** With electronic ballast, glass cover, cable entry with cable relief, and pressure compensation system

retractable.

Zhaga compliant socket on the bottom side of the housing.

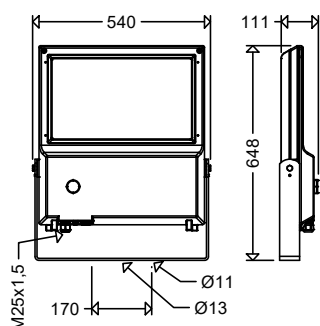
Glass: Flat safety glass pane, resistant to temperature changes, impact resistant IK09, silicone gasket.

Light distribution: With optics narrow-wide (TB), narrow (T) or asymmetrical beam (A), without optics wide beam

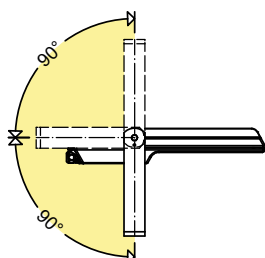
Connection: 3-pole terminal, max. clamping range 2,5 mm².

Cable entry: 1 cable entry M25 x 1.5 (1 cable gland).

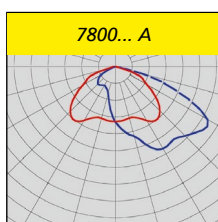
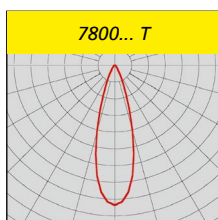
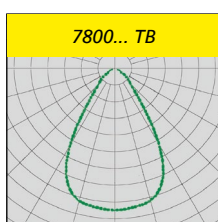
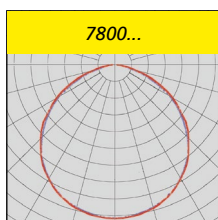
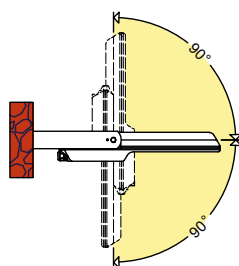
Mounting: Mounting bracket, swivel range 180°, with 3 drillings for wall- or ceiling mounting or for direct pole mounting in conjunction with pipe clamps **ROB 60/76 G2** (see accessories).



Swivel range



Standard Mounting



Exclusively D4i control gear is being used in RFL luminaires from Schuch. All D4i Zhaga Book 18 certified controllers and D4i Zhaga Book 18 certified sensors available on the market can be used in combination with RFL luminaires from Schuch. Controllers and sensors which do not comply with the D4i standard can limit the functionality of the luminaires and components. Moreover, in individual cases, such non-certified components may cause damage to both the luminaires and the components.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000h$

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

Ambient temperature: -40°C up to +40°C

Options:

- 3,000K, light colour 730 (6% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux)
- 1,800K, light colour 518 „Amber“ (35% lower luminous flux)
- protection class II (SKII)
- asymmetrical wide beam (AB-optics)
- asymmetrical extremely wide beam (ABX)
- optics for ME-classes (AB3)
- low glare optics (ABL)
- extremely narrow beam (TX)
- extremely asymmetrical beam (AX)
- high protection (HR) against corrosive atmospheres or harmful gases
- seawater-resistant version (SWP)
- for connection to group or central battery systems (ZB) or emergency mains respectively
- additional overvoltage protection (OP)
- cable looping at 1 small side (RR)
- special painting in RAL colours (SL)

Product highlights:

- subsequent use of a lighting management system possible at any time
- tool-free, quick assembly of the light management system components
- standardized Zhaga compliant socket allows free choice of light management system
- ECG with surge voltage resistance 10kV
- optimized thermal management due to direct adaption of the LED-modules to the housing
- lifetime $L_{90} > 100,000h$
- homogeneous illumination due to the Multi-Layer-Technology
- optimal light distribution due to highly efficient optics
- eco-friendly, no light emission into the upper half-space. Dark-Sky requirements are fulfilled (Plane surface floodlight)
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga) and Socket

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Article no.	Type	wide beam	narrow-wide beam	narrow-beam	Weight [ca. kg] (without packaging)	Power / consumption [W]	Luminous flux [lm] ¹⁾	Luminous efficacy [lm/W]
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7800 ... RFLU



Floodlight with a socket on the bottom side of the luminaire

78002 0001	7800 6403 RFLU	•			15,9	140	19.900	142
78002 0005	7800 6403TB RFLU		•		15,9			
78002 0007	7800 6403T RFLU			•	15,9			
78002 0002	7800 12803 RFLU	•			17,0	280	38.300	137
78002 0006	7800 12803TB RFLU		•		17,0			
78002 0008	7800 12803T RFLU			•	17,0			

Plane Surface Floodlight with a socket on the bottom side of the luminaire

78002 0003	7800 6403A RFLU		•	2	17,0	280	38.300	137
78002 0004	7800 12803A RFLU		•	1	15,9	140	19.900	142

! Also available with output reduction LA or constant luminous flux function CL as well as combinations of these functions CL LA.

RFL LIMAS HUB3



RFL LIMAS BM RAD HUB LPH max. 8m



RFL LIMAS BM RAD MA LPH max. 10m



RFL BM/DS IR HUB LPH max. 12m



LIMAS USB-Dongle



LIMAS Gateway 3 EU



System components

Article No.	Type	
90546 9009	RFL LIMAS HUB3	control element
90546 9010	RFL LIMAS HUB3 GPS	control element with GPS
90546 9011	RFL LIMAS BM RAD HUB LPH max. 8m	control element / radar motion detector
90546 9012	RFL LIMAS BM RAD MA LPH max. 10m	control element / radar motion detector
90546 9000	RFL DS20 HUB 20lux ON/OFF	Twilight switch
90546 9006	RFL BM/DS IR HUB LPH max. 12m	infrared motion detector / twilight switch

Other sensors, e.g. environmental sensors (fine dust, CO₂, weather station etc.) on request.

Control components

Article No.	Type	
90545 0001	LIMAS USB-Dongle	For setting up / programming or retrospectively adapting the light fittings in the field
90545 0004	LIMAS Gateway 3 EU	For extensive monitoring and control of the light fittings from afar with a SIM card via the mobile network or Ethernet (LAN / WLAN) including data logging functionality

Accessories / Spare Parts

Article no.	Type	
78001 9001	7800/010	spare safety glas
75739 9010	7700/7800/1 M	pole top for single mounting; galvanised steel
75739 9011	7700/7800/2 M	pole top for dual mounting; galvanised steel
90270 0006	ROB 60/76 G2	pipe clamp for direct pole mounting or on multiple post top adapters; galvanised steel
90117 9000	2537	plastic cable gland M25 x 1,5 black
75350 0033	SD 7800 ST	vibration absorbing suspension device for series 7800, galvanised steel

All pole top brackets made of galvanised steel. Painting in any RAL colour for additional charge.

NEW

AREALO LED Large-Area Spotlight Series 7850...

Applications:

Large areas such as car parks, stockyards, Loading station, container terminals, large opencast mining equipment, port facilities, airport apron lighting, Sports facilities etc.

Design:

Housing: 1 - 3 Segments of die-cast aluminium, powder coated in DB 702 (mica-iron paint, grey), with LED modules, optics, cover glass and pressure compensation system. Rear-mounted ECG-housing made of aluminium, powder coated in DB 702, with ECG and plug connection.

Segment holder and swivel bracket made

of galvanized steel.

Glass: Flat safety glass pane, resistant to temperature changes, impact resistant IK09, silicone gasket.

Light distribution: Extremely asymmetrical beam.

Connection: Quick connector (**Fast-Connect**), plug mounted to the housing, socket included. Wired ready for connection.

Mounting: Mounting bracket, swivel range 90°, adjustable in steps of 5°, with 3 drillings for direct wall mounting or pole mounting in connection with a pole mounting bracket respectively.

Electrical design:

LED module: Zhaga compliant, 4,000K, $R_a > 70$, lifetime $L_{90} > 100,000$ h

ECG: 220-240V, 50-60Hz, Surge voltage resistance 10kV, overload and short circuit protection.

Light control:

On request, the luminaires are also available with the following configurations:

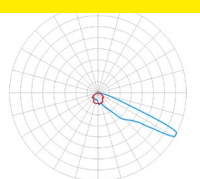
Output reduction with control phase (LR): For reducing the luminous flux to 50% by switching off half of the LEDs per segment. Control phase (**LST**) required. Switching via control phase (**LST** = 230V: 100%; **LST** = 0V: 50%).

Output reduction without control phase (LA): Autarkic dimming. Reduced operation 50% between 22:00 and 4:00h CET or 23:00 and 5:00h CEST, also available with deviating times and with alternative dimming steps.

Digital dimming with DALI interface (DIMD)

Constant luminous flux function (CL): Luminous flux is kept on a constant level over the entire lifetime of the LED-modules.

7850... SP



Options:

- 3,000 K, light colour 730 (6% lower luminous flux) (35% lower luminous flux)
- 2,200K, light colour 722 (20% lower luminous flux) – asymmetrical light distribution (**A**)
- 1,800K, light colour 518 „Amber“ – seawater-resistant version (**SWP**)
- special painting in RAL colours (**SL**)

Product highlights:

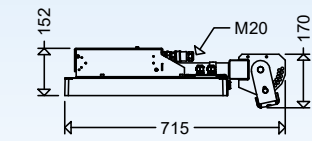
- robust, modular design
- excellent thermal management due to segment-surrounding cooling fin structure, excellent heat dissipation, with additional cooling by convection
- precise light distribution with highly efficient optics
- uniform illumination through **Multi-Layer-Technology**, this means each individual LED illuminates the entire area, the LCDs of the individual LEDs are overlapping
- Luminaire can be rotated using a mounting bracket and swiveled by up to 90° in 5° increments, segments can also be tilted to achieve optimal lighting results
- simple, quick mounting:
Fasten the mounting bracket with the segment holder, attach and fix the segments individually, establish the electrical connection using the **FastConnect quick connector**
- quick ECG exchange with OV version, no supervisor required
- eco friendly with 0° mounting (**Plane Surface Floodlight**) no light emission in the upper half space, Dark-Sky requirements are fulfilled
- sustainable, components interchangeable
- future proof by using standardized LED-modules (Zhaga)

Properties, limitations and details for controlling LED-light fittings:

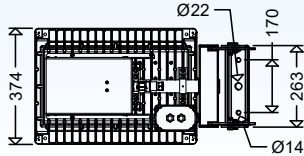
See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

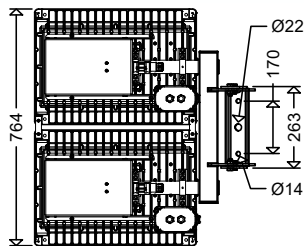




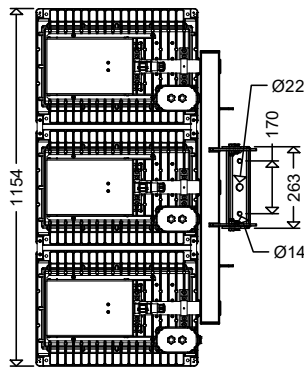
Version: 7850 1280...



Version: 7850 2560...



Version: 7850 3840...

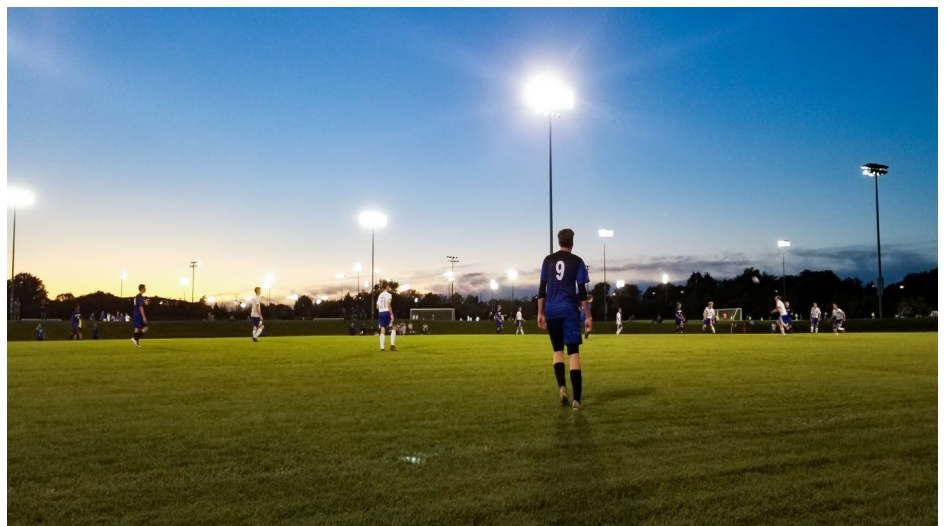
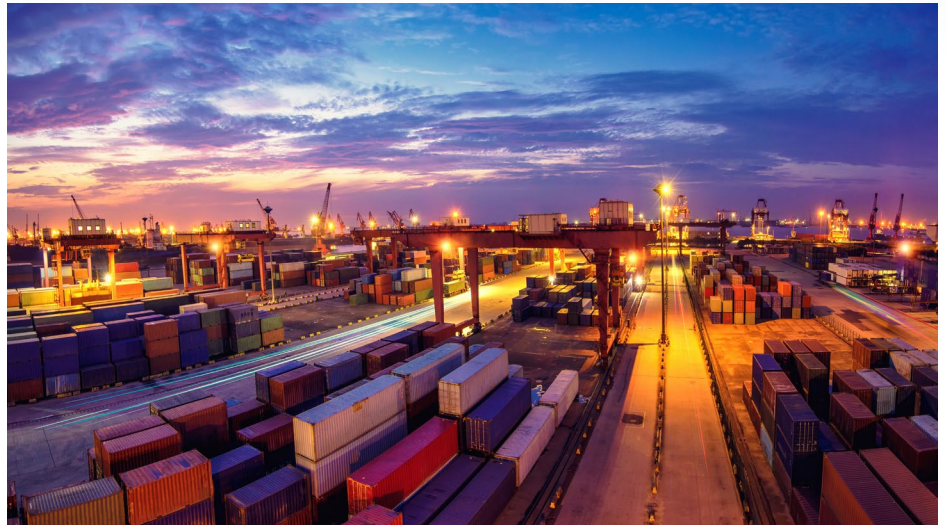


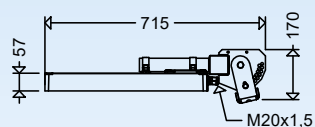
Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [ca. kg] (without packaging)	Wind load area [m²]
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7850... SP

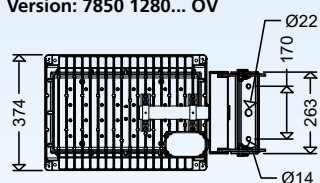


78501 0005	7850 12804SP	394	50.000	127	18,3	0,16
78501 0006	7850 12804SP DIMD	394	50.000	127	18,3	0,16
78502 0002	7850 25604SP	788	100.000	127	34,0	0,32
78502 0003	7850 25604SP DIMD	788	100.000	127	34,0	0,32
78503 0003	7850 38404SP	1.182	150.000	127	50,0	0,48
78503 0004	7850 38404SP DIMD	1.182	150.000	127	50,0	0,48

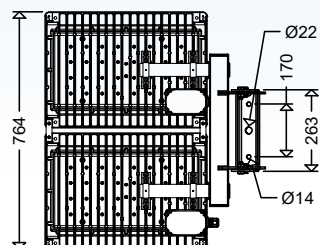




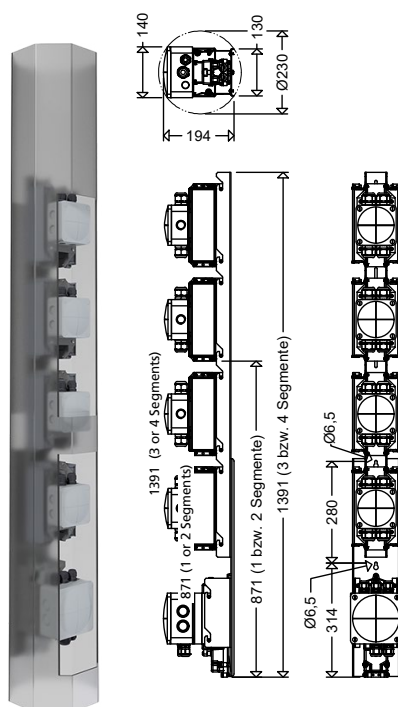
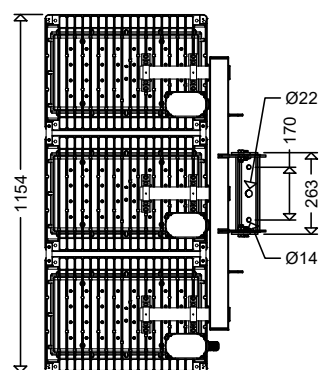
Version: 7850 1280... OV



Version: 7850 2560... OV



Version: 7850 3840... OV



Article no.	Type	Power consumption [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [ca. kg] (without packaging)	Wind load area [m²]
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7850... SP OV



Version:

Like 7850 ... but without ECG housing (OV), mast mounting unit required (see below), please order separately.

Connection: Via external junction box on the housing segment.

Cable entry: 1 cable entrie M20 x 1.5, per housing segment; cable gland(s) included in the delivery.

78501 0101	7850 12804SP OV	394	50.000	127	14,3	0,16
78502 0102	7850 25604SP OV	788	100.000	127	26,0	0,32
78503 0103	7850 38404SP OV	1.182	150.000	127	38,0	0,48



Internal pole mounting unit 7850 ME 1000

Design:

Component plate with electronic ballast and cable junction box, wired ready for connection.

Connection:

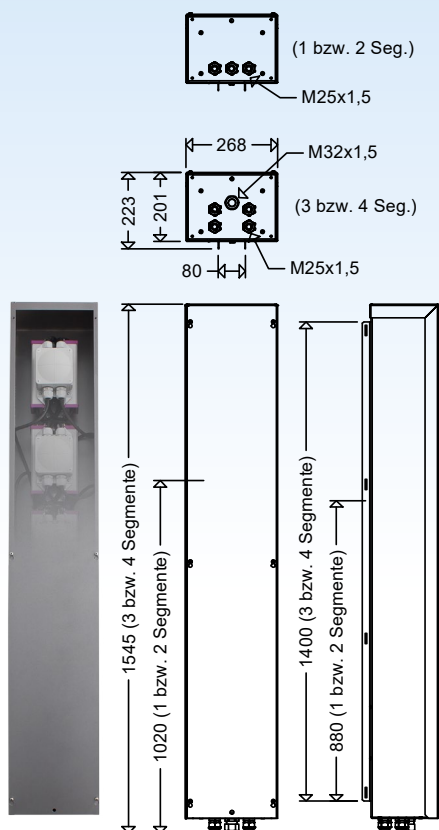
On the secondary side via FastConnect quick connector, connector and socket included in delivery.

For connecting the housing segments to the pole installation unit, one 5-core cable is required for each housing segment.

Pole mounting:

M6 screws for suspension profile with all electrical components.

Article no.	Type		Weight [kg] (without packaging)
78509 0006	7850 1ME 1000	Internal pole mounting unit for 7850 12804SP OV	7,7
78509 0010	7850 1ME 1000 DIMD	Internal pole mounting unit for 7850 12804SP OV DIMD	7,7
78509 0007	7850 2ME 1000	Internal pole mounting unit for 7850 25604SP OV	10,9
78509 0011	7850 2ME 1000 DIMD	Internal pole mounting unit for 7850 25604SP OV DIMD	10,9
78509 0008	7850 3ME 1000	Internal pole mounting unit for 7850 38404SP OV	14,9
78509 0012	7850 3ME 1000 DIMD	Internal pole mounting unit for 7850 38404SP OV DIMD	14,9
78509 0009	7850 4ME 1000	Internal pole mounting unit for 2 x 7850 25604SP OV mounted in a mast	18,1
78509 0013	7850 4ME 1000 DIMD	Internal pole mounting unit for 2 x 7850 25604SP OV DIMD mounted in a mast	18,1



External pole mounting unit 7850 MA 1000

Design:

Component plate with electronic ballast and cable junction box, wired ready for connection.

Connection:

On the secondary side via FastConnect quick connector, connector included in delivery.

For connecting the housing segments to the pole installation unit, one 5-core cable is required for each housing segment.

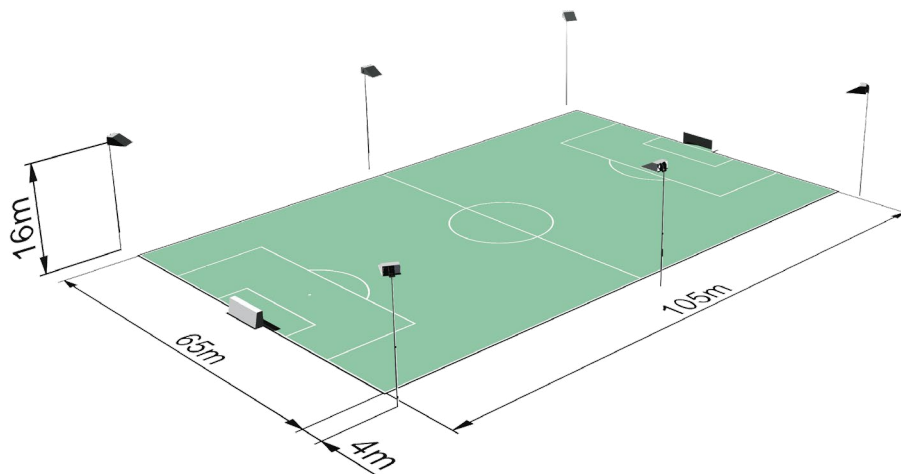
Pole mounting:

With corrosion-resistant fixing strap.

Article no.	Type		Weight [kg] (without packaging)
78508 0005	7850 1MA 1000	External pole mounting unit for 7850 12804SP OV	16,7
78508 0009	7850 1MA 1000 DIMD	External pole mounting unit for 7850 12804SP OV DIMD	16,7
78508 0006	7850 2MA 1000	External pole mounting unit for 7850 25604SP OV	19,9
78508 0010	7850 2MA 1000 DIMD	External pole mounting unit for 7850 25604SP OV DIMD	19,9
78508 0007	7850 3MA 1000	External pole mounting unit for 7850 38404SP OV	28,9
78508 0011	7850 3MA 1000 DIMD	External pole mounting unit for 7850 38404SP OV DIMD	28,9
78508 0008	7850 4MA 1000	External pole mounting unit for 2 x 7850 25604SP OV mounted on a mast	30,1
78508 0012	7850 4MA 1000 DIMD	External pole mounting unit for 2 x 7850 25604SP OV DIMD mounted on a mast	30,1

Planning examples / smart lighting control

You can find **planning examples** for sports field lighting as well as information on **smart lighting control** with LIMAS Air in our outdoor luminaires catalogue.



Accessories / Spare Parts

Article no.	Type	
78510 9000	7850/010	spare safety glas
78510 9001	MA KBS	cable protection add-on element for 7850 .MA
90120 9011	2530	plastic cable gland M20 x 1,5 black

Aluguss-Mehrzweck-Rohrausleger

Baureihen 4860 – 4864

Einsatz: Baureihen 42, 43, 46, 47, 48, 287

Einsatzbereiche:

Zur Befestigung von Ansatzleuchten an flachen Wänden sowie an Gebäudeecken.

Ausführung:

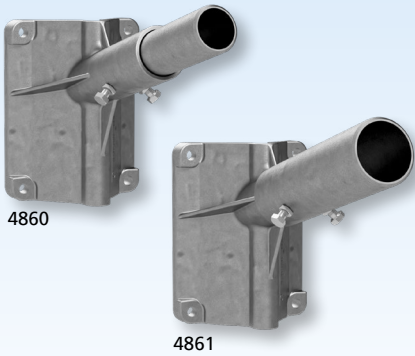
Aluminium-Gussteil: Naturbelassen, mit vier Befestigungsbohrungen Ø10,5 und Aufnahmeschaft für Auslegerrohr aus verzinktem Stahl.

Auslegerrohr/Tragestützen: Ø42mm (100, 250 bzw. 400mm lang) oder Ø60mm (100 bzw. 250mm lang), mit 2 Schrauben M8.

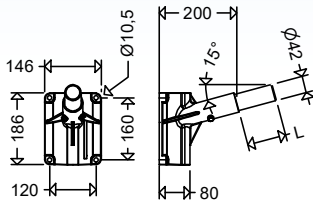
Auslegerrohrmontage:

Auslegerrohre Ø42mm werden in den Aufnahmeschaft geschoben, Auslegerrohre Ø60mm werden auf den Aufnahmeschaft geschoben. Die Befestigung erfolgt mit 2 Schrauben M8 (im Lieferumfang enthalten).

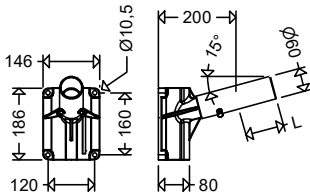
Optionen: Sonderlackierung in RAL- und DB-Farben (SL).



4860/62/63



4861/64



4860 - 4864

Artikel-Nr.	Type	D	L	Gewicht ca. [kg]
48600 0001	4860	42	100	1,4
48600 0002	4861	60	100	1,7
48600 0003	4862	42	250	1,9
48600 0004	4863	42	400	2,3
48600 0005	4864	60	250	2,5

Alublech-Standard-Rohrausleger

Baureihen 4870 / 4871

Einsatz: Baureihen 42, 43, 46, 47, 48

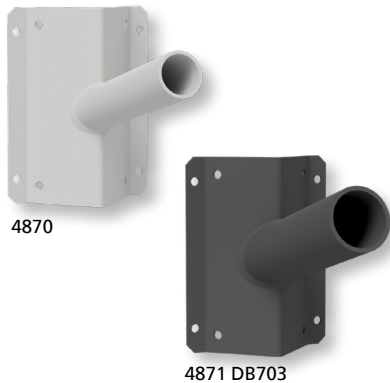
Einsatzbereiche:

Zur Befestigung von Ansatzleuchten an flachen Wänden sowie an Gebäudeecken.

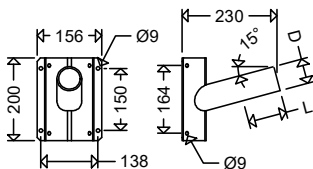
Ausführung:

Aluminium-Blechteil 4mm stark, pulverlackiert lichtgrau (RAL 7035) bzw. eisenglimmer (DB703), mit acht Befestigungsbohrungen Ø9 und angeschweißtem Auslegerrohr/Tragestützen Ø42mm (100mm lang) oder Ø60mm (100mm lang)

Optionen: Sonderlackierung in RAL- und DB-Farben (SL).



4870/71



4870 / 4871

Artikel-Nr.	Type	D	L	Gewicht ca. [kg]
48700 0001	4870	42	100	0,6
48700 0503	4870 DB703	42	100	0,6
48700 0002	4871	60	100	0,7
48700 0504	4871 DB703	60	100	0,7

Pole-Top Brackets, Reducing Adapters, Tubular and Wall Brackets

All pole-top and wall brackets with the exception of the aluminium tubular brackets are made from galvanised steel. Powder coating in any RAL colour is possible at extra charge.

Article No.	Type	Description	Weight ca. [kg]	for follwing light fittings:
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Pole-top brackets Ø 42mm

60099 0001	600/1	for 1 fitting	3,2	42, 46, 47, 48, 287 L06..
60099 0002	600/2	for 2 fittings	4,0	
60099 0003	600/3	for 3 fittings	4,8	
60099 0004	600/4	for 4 fittings	5,6	

Pole-top brackets Ø 60mm

60199 0001	601/1	for 1 fitting	3,7	42, 46, 47, 48
60199 0002	601/2	for 2 fittings	5,1	
60199 0003	601/3	for 3 fittings	6,5	
60199 0004	601/4	for 4 fittings	7,9	

Pole-top brackets Ø 60mm

61099 0001	610/1	for 1 fitting	3,7	42, 46, 47, 48
61099 0002	610/2	for 2 fittings	5,1	
61099 0003	610/3	for 3 fittings	6,5	
61099 0004	610/4	for 4 fittings	7,9	

Reducers

60499 0001	604 (60/42)	1	4,0	287 12L...
60599 0001	605 (60/42)	2	3,5	287 06L...
60699 0001	606 (48/42)	3	2,8	42, 47, 48, 46
60799 0001	607 (60/42)	4	1,6	42, 47, 48, 46

Round arch pole-top adapter

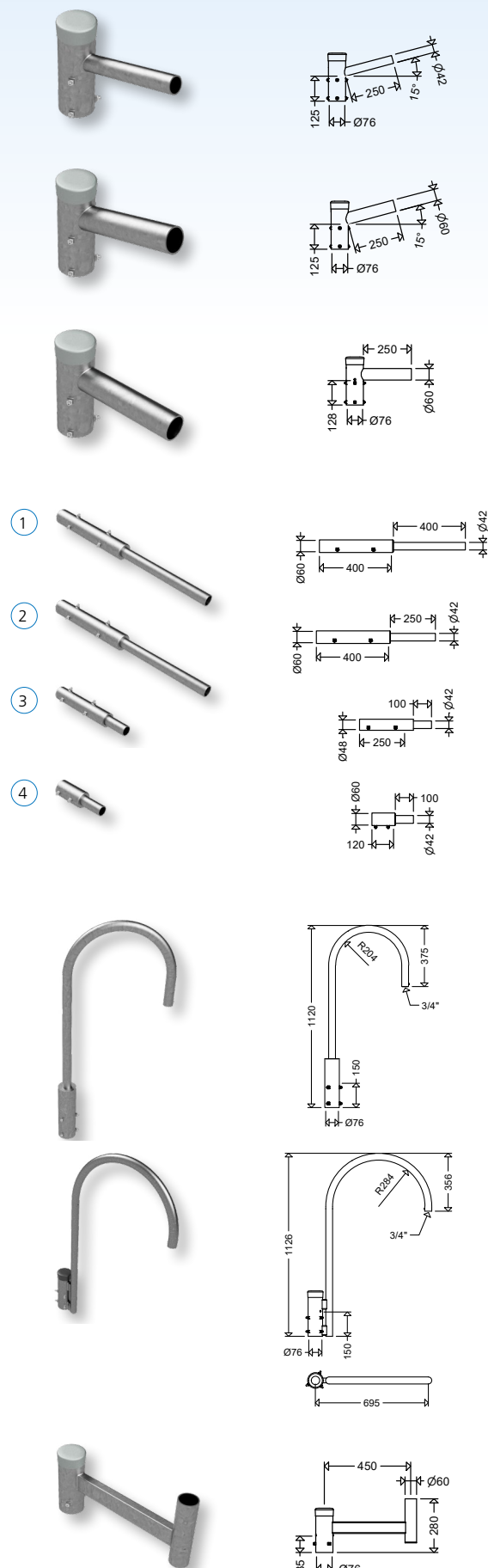
61999 0001	619/1		8,8	564, 565
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Pole-top

NEW 72299 0001	722/1	for 1 fitting	8,2	564, 565
72299 0002	722/2	for 2 fittings	14,0	
72299 0003	722/3	for 3 fittings	19,9	
72299 0004	722/4	for 4 fittings	25,7	

Pole-top

62599 0001	625/1	for 1 fitting	4,6	541, 542, 543, 553, 556, 557, 558, 544, (with RZ 1), 46, 47, 48
NEW 62599 0002	625/2	for 2 fittings	7,0	
62599 0003	625/3	for 3 fittings	9,4	
62599 0004	625/4	for 4 fittings	11,8	





Emergency Light Fittings

Reliability in severe environment

Darkness means fear. Especially in buildings with a lot of people inside, panic will come up if the light fails.

For this reason and according to the relevant laws and standards, an emergency lighting system must be installed.

Due to special operating conditions, emergency light fitting design shall comply with particular requirements.

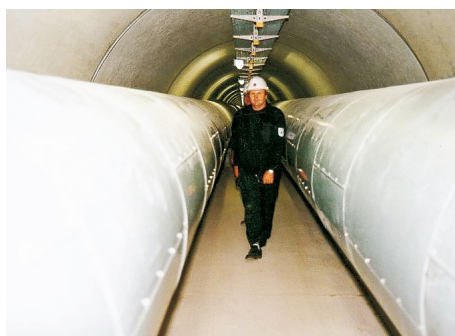
WIDE RANGE OF PRODUCTS, INCLUDING SPECIAL SOLUTIONS.

SCHUCH offers optimal solutions for each specific application of an emergency lighting system, e.g. highly dangerous work places and escape routes.

A wide range of products is available: From light fittings with built-in batteries to group and central battery systems connected ones.

An emergency version is available for almost each light fitting out of the wide range of SCHUCH products.

Applications with harsh conditions, such as high ambient temperatures or extreme variations in temperature, consistently challenge us to develop new custom-built solutions. Ambient temperatures of +50°C are often observed at power plants, waste incineration plants, recycling plants, chemical factories, as well as commercial kitchens, bakeries, etc. In such cases, SCHUCH light fittings can also help safely illuminate and indicate any escape route.



Product	Series	Page
Light fittings with diffuser		
Series 161...	161...	200-201
• with self-contained battery and automatic self-monitoring	... MA	201
• for central battery systems	... ZB	201
• for high ambient temperatures up to +50°C	... H50 MA	202
Series 163... Generation 2	163 G2	203-204
• with self-contained battery and automatic self-monitoring	... G2 MA	204
• for central battery systems	... G2 ZB	204
LUXANO 2	167... G2	205-206
• with self-contained battery and automatic self-monitoring	... MA	206
• for central battery systems	... ZB	206
Series 164 KL...	164 KL...	207-208
<i>small polyester light fittings</i>		
• with self-contained battery and automatic self-monitoring	... MA	207
• for central battery systems	... ZB	208
Series 131...	131...	209-210
<i>small PC-light fittings</i>		
• with self-contained battery and automatic self-monitoring	... W MA	210
• for central battery systems	... ZB	210
Series 3611...	3611...	211-212
<i>small die-cast aluminium light fittings</i>		
• with self-contained battery and automatic self-monitoring	... MA	211
• for central battery systems	... ZB	212
Group or central battery systems		
We recommend the use of systems of the make of INOTEC. Other makes upon request		
Note		
Emergency light fittings for zone 1/2 or 21/22 areas you may find in chapter „SCHUCH Explosion-Protected LED Light Fittings“		
Emergency light fittings for other applications on demand.		

LED TECHNOLOGY

LED light fittings are meanwhile a standard solution with regard to indication and illumination of escape routes. Pictogram illumination that complies with the standards can be done with a minimum supply power.

By applying relevant optics, escape route light fittings may be installed at longer distances between the light points. This allows reducing cost without compromising safety.

SCHUCH is a qualified partner having over 10 years of experience in emergency LED light fitting production.

2005

Introduction of first emergency light fittings with the new LED technology.

2011

Introduction of first explosion-protected LED light fittings equipped with a battery.

2015

The product range is extended by adding emergency LED light fittings with batteries to be operated at an ambient temperature up to +50 °C.

2017-2019

Due to the low energy consumption gains, luminaires of version ZB for connection to group or central battery systems or to emergency lighting networks are becoming increasingly important.

2020/2021

Introduction of the LIMAS Line lighting management system for central monitoring of self-contained emergency light fittings in accordance to DIN VDE V 0108-100-1.





Dustproof/Waterproof LED Emergency Light Fitting with Diffuser Series 161 ..

Applications:

In humid, wet and dusty locations for illuminating escape routes etc.

Mechanical Design:

Housing: Glass fibre reinforced polyester resin, silicone gasket.

Diffuser: Injected, acrylic glass, frosted, additional clear cover over the LED-modules to ensure protection against contact (Types ...MA).

Closure: Three-part captive plastic clips

(KK), incl. 2 safety clips (KKS)

Reflector: Aluminium, painted can be suspended or removed and carries the electrical components.

Connection: 3/4-pole terminal.

Cable entries: 2 plugs M20.

Mounting: Closed knock-outs for direct ceiling mounting (to be opened at site). Sealing and pressure disks inside each fitting.

Technical Data:

LED: Linear modules 4.000K, $R_a > 80$, lifetime $L_{90} > 50.000h$ at 25°C ambient temperature, lifetime $L_{80} > 70.000h$ at max. ambient temperature

Incorporated NiCd battery, electronic charger, short circuit protected battery and reverse battery protection

Electronic deep discharge protection acc. to EN 61347-2-7

Re-charging time: 24h, acc. to EN 60598-2-22

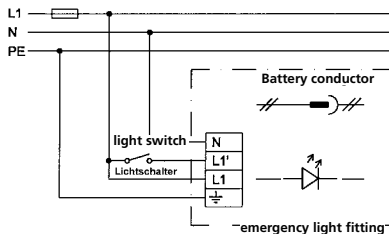
Automatic monitoring: of the emergency light fitting according to EN 62034, indication of the test results by 2-coloured LED (luminescence diode) at the luminaire

Mode of operation:

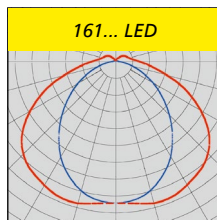
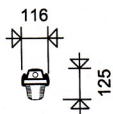
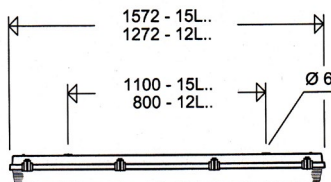
maintained operation = switching over to battery operation in case of mains failure, line modules will be operated with reduced luminous flux as emergency lighting.

Connection voltage: 220-240V 50/60Hz

Ambient temperature: -5°C up to +30°C (maintained operation)



Installation: connect battery conductor
Decommission: disconnect battery conductor



Options:

- 6.500K
- for higher ambient temperatures
- according to „International Featured Standard Food“ (IFS)
- for application in food industry (LM)
- PC-diffuser frosted (PC)
- stainless steel clips (KE)
- with dimming function via DALI2 interface, compatible with LIMAS Line (DIMD) Light Management System

For versions with self-contained battery:

- Emergency lighting unit with DALI interface for central monitoring, compatible with LIMAS Line (MA-Z) Light Management System
- Through-wiring
- 4-conductor: L1, L1', N, PE or
- 6-conductor: L1, L1', L2', L3', N, PE

For versions with central battery system:

- with reduced luminous flux in DC-Mode (e. g.: 15%, 50% etc.)
- with separate module for monitoring individual light fittings

Product highlights:

- robust, high quality light fitting with outstanding mechanical strength, for rough industrial use
- always ready for operation due to permanent trickle charging of the battery (MA-versions)
- safety, 100 % luminous flux at low ambient temperatures (MA-versions)
- Central battery versions with 100% luminous flux in case of emergency (ZB-versions)
- homogeneous illumination by using frosted diffusers, no individual light points visible, comfortable perception of light, brilliant glare limitation
- high colour reproduction $R_a > 80$, according to the workplace guide lines suitable for nearly all plant locations
- reliable protection against contact due to additional clear cover (MA-versions)
- ECG and reflector with LED modules may be replaced by qualified personal on-site (no single use light fitting)
- future proof by using LED-modules according to Zhaga standard

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W] (incl. battery charge)	Luminous flux [lm]	Luminous flux [lm] (emergency operation)	Luminous efficacy [lm/W]	Operating time 1h	Operating time 3h	Substitute for *	Weight [kg] (without packing material)
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161 ../. MA



with self-contained battery and automatic self-monitoring

16118 0331	161 12L22/1 MA	17	2.390	890	141	•		1 x 36W	3,1
16118 0332	161 15L34/1 MA	23	3.440	940	150	•		1 x 58W	3,8
16118 0333	161 12L42/1 MA	29	4.240	890	146	•		2 x 36W	3,1
16118 0334	161 15L60/1 MA	41	6.160	940	150	•		2 x 58W	3,8
16118 0341	161 12L22/3 MA	18	2.390	890	133	•	•	1 x 36W	3,5
16118 0342	161 15L34/3 MA	24	3.440	940	143	•	•	1 x 58W	4,2
16118 0343	161 12L42/3 MA	30	4.240	890	141	•	•	2 x 36W	3,5
16118 0344	161 15L60/3 MA	42	6.160	940	147	•	•	2 x 58W	4,2

161 ../. ZB



for central battery systems

Applications:

For connection to group or central battery systems or to an emergency mains for illuminating escape routes. We recommend Central Battery Systems from INOTEC.

Technical Data:

Light fitting with incorporated fuse for cut-off in case of failure according to DIN EN 60598-2-22, section 22.7.3.

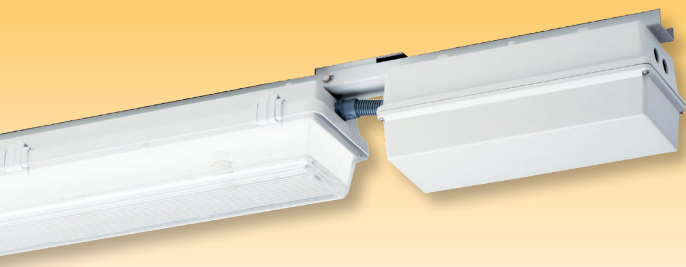
Connection voltage: 220-240V, 50/60Hz and 220V DC

Ambient temperature: from -20°C to +40°C (+30°C Types with high luminous flux)

16118 0104	161 12L22 ZB	15	2.390	2.390	159			1 x 36W	2,6
16118 0103	161 15L34 ZB	21	3.440	3.440	164			1 x 58W	3,0
16118 0049	161 12L42 ZB	27	4.240	4.240	157			2 x 36W	2,6
16118 0048	161 15L60 ZB	39	6.160	6.160	158			2 x 58W	3,0
16118 0083	161 12L60 ZB	39	5.920	5.920	152			2 x 58W	2,6
16118 0063	161 15L75 ZB	49	7.440	7.440	152			> 2 x 58W	3,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories and spare parts please see section „Dustproof/Waterproof LED Light Fitting with Diffuser Series **161/162.. LED**“ in our catalogue. When ordering electronic parts or battery sets please always mention the article no. of the respective fitting.



Dustproof/Waterproof LED Light Fitting with Diffuser for high ambient temperatures up to +50°C Series 161... H50

Applications:

In humid, wet and dusty locations with high ambient temperatures for illuminating escape routes.

Mechanical:

Housing: Glass fibre reinforced polyester resin, silicone gasket.

Diffuser: Injected, acrylic glass, frosted.

Closure: Three-part captive plastic clips (KK), incl. 2 safety clips (KKS) to ensure protection against contact.

Reflector: Aluminium, painted can be suspended or removed and carries the

electrical components.

Emergency light components installed in a separate glass fibre reinforced polyester box (BR 10150) which is mounted to a carrier rail together with the light fitting as one unit.

Connection: 6-pole terminal for one-sided loop-in/loop-out wiring with 2 plastic cable glands M20 x 1,5

Mounting: Direct ceiling or wall mount or rope/chain mount with eye bolts or hooks.

Technical Data:

LED: Linear modules 4.000K, $R_a > 80$, lifetime $L_{90} > 50.000h$ at 25°C ambient temperature, lifetime $L_{80} > 70.000h$ at max. ambient temperature

Incorporated NiCd battery, electronic charger, short circuit protected battery and reverse battery protection

Electronic deep discharge protection acc. to EN 61347-2-7

Re-charging time: 24h, acc. to EN 60598-2-22

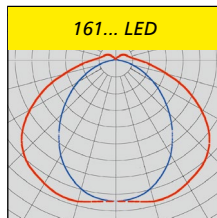
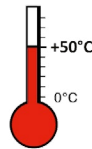
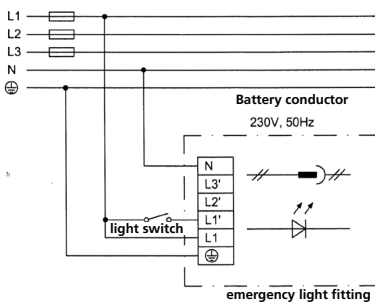
Automatic monitoring the emergency light fitting according to EN 62034, indication of the test results by 2-coloured LED (luminescence diode) at the luminaire.

Mode of operation:

maintained operation = switching over to battery operation in case of mains failure, linear modules will be operated with reduced luminous flux as emergency lighting.

Connection voltage: 220-240V, 50/60Hz

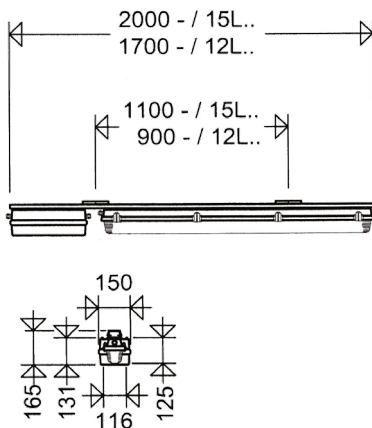
Ambient temperature: 0°C up to +50°C (maintained operation)



Options:

- 6.500K
- according to „International Featured Standard Food“ (IFS)
- for application in food industry (LM)
- PC-diffuser frosted (PC)
- Emergency lighting unit with DALI interface for central monitoring, compatible with LIMAS Line (MA-Z) Light Management System

Installation: connect battery conductor
Decommission: disconnect battery conductor



Product highlights:

- robust, high quality light fitting with outstanding mechanical strength, for rough industrial use
- always ready for operation due to permanent trickle charge of the battery
- safety in case of emergency, instant light with maximum light output
- homogeneous illumination by using frosted diffusers, no particular light points visible, comfortable perception of light, brilliant glare limitation
- high colour reproduction $R_a > 80$, according to the workplace guide lines suitable for nearly all plant locations
- ECG and reflector with LED modules may be replaced by qualified personal (no single use light fitting)
- future proof by using standardized LED-modules (Zahga)

Article no.	Type	Power consumption [W] (incl. battery charge)	Luminous flux [lm]	Luminous flux [lm] (emergency operation)	Luminous efficacy [lm/W]	Operating hours 1h	Operating hours 3h	Substitute for *	Weight [kg] (without packingmaterial)
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161 ..L../. H50 MA



with self-contained battery and automatic self-monitoring

16121 0001	161 12L22/1 H50 MA	17	2390	890	141	•	1 x 36W	8,0
16121 0002	161 15L34/1 H50 MA	23	3440	940	150	•	1 x 58W	8,9
16121 0007	161 12L42/1 H50 MA	29	4240	890	146	•	2 x 36W	8,0
16121 0008	161 15L60/1 H50 MA	41	6160	940	150	•	2 x 58W	8,9
16121 0003	161 12L22/3 H50 MA	18	2390	890	133	•	1 x 36W	8,0
16121 0004	161 15L34/3 H50 MA	24	3440	940	143	•	1 x 58W	8,9
16121 0009	161 12L42/3 H50 MA	30	4240	890	141	•	2 x 36W	8,0
16121 0010	161 15L60/3 H50 MA	42	6160	940	147	•	2 x 58W	8,9

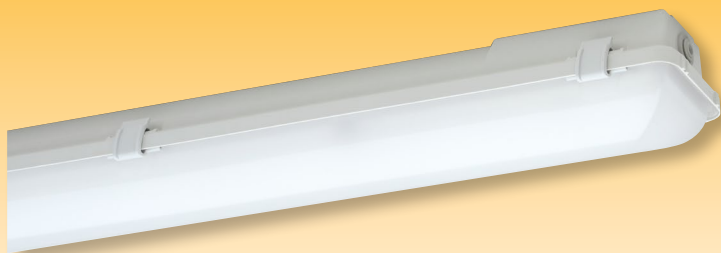
* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories and spare parts please see section „Dustproof/Waterproof LED Light Fitting with Diffuser Series 161/162.. L..“ in our catalogue. When ordering electronic parts or battery sets please always mention the article no. of the respective fitting.

Properties, limitations and details for controlling LED-light fittings:

See „Technical Supplement“

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



Dustproof/Waterproof LED Emergency Light Fitting with Diffuser Series 163 .. G2

Applications:

In humid, wet and dusty locations for illuminating escape routes.

Mechanical Design:

Housing: Glass fibre reinforced polyester resin, foamed gasket.

Diffuser: Acrylic glass for high mechanical strength, frosted, additional clear cover over the LED-modules to ensure protection against contact (Types ... MA).

Closure: Single-part plastic clips (KK), incl.

2 safety clips (KKS)

Reflector: Aluminium, painted, detachable carrying the electrical components.

Connection: 3/4-pole terminal.

Cable entries: Variable, closed knock-outs on the short and long sides, and on the top, 2 blanking plugs M20.

Mounting system: 2 holes for ceiling mounting. Sealing and pressure disks for sealing are supplied inside the fitting.

Technical data:

LED: Linear modules 4.000K, $R_a > 80$, lifetime $L_{80} > 60.000h$ at 25°C ambient temperature, lifetime $L_{80} > 50.000h$ at max. ambient temperature

Incorporated NiCd battery, electronic charger, short circuit protected battery and reverse battery protection

Electronic deep discharge protection acc. to EN 61347-2-7

Re-charging time: 24h, acc. to EN 60598-2-22

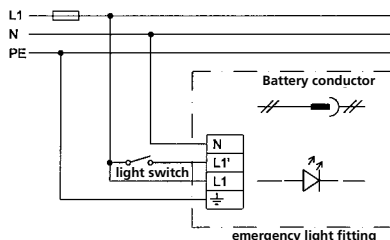
Automatic monitoring the emergency light fitting according to EN 62034. Indication of the test results by 2-coloured LED (luminescence diode) at the luminaire.

Mode of operation:

maintained operation = switching over to battery operation in case of mains failure, line modules will be operated with reduced luminous flux as emergency lighting.

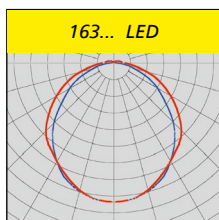
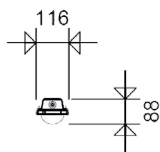
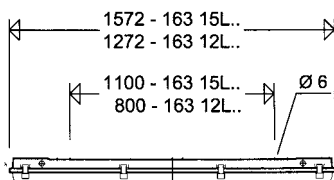
Connection voltage: 220-240V 50/60Hz

Ambient temperature: -5°C up to +30°C (maintained operation)



Installation: connect battery conductor

Decommission: disconnect battery conductor



Options:

- 6.500 K
- according to „International Featured Standard Food“ (IFS)
- PC-diffuser stippled clear (PC)
- stainless steel clips (KE)
- with dimming function via DALI2 interface, compatible with LIMAS Line (DIMD) Light Management System

For versions with self-contained battery:

- Emergency lighting unit with DALI interface for central monitoring, compatible with LIMAS Line PRO (MA-Z) Light Management System
- through-wiring
- 4-conductor: L1, L1', N, PE or
- 6-conductor: L1, L1', L2', L3', N, PE

For versions with central battery system:

- with reduced luminous flux in DC mode (e. g. 15%, 50% etc.)
- with separate module for monitoring individual light fittings

Product highlights:

- always ready for operation due to permanent trickle charging of the battery (MA-versions)
- safety, 100 % luminous flux at low ambient temperatures (MA-versions)
- Central battery versions with 100% luminous flux in case of emergency (ZB-versions)
- homogeneous illumination by using the new, frosted diffusers, no individual light points visible, comfortable perception of light, brilliant glare limitation
- high colour reproduction $R_a > 80$, according to the workplace guide lines suitable for nearly all plant locations
- reliable protection against contact due to additional clear cover (MA-versions)
- ECG and reflector with LED-modules can be replaced by qualified personnel on-site (no single use light fitting)
- future proof by using LED-modules according to Zhaga standard

Properties, limitations and details for controlling LED-light fittings:

■ See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W] (incl. battery charge)	Luminous flux [lm]	Luminous flux [lm] (emergency operation)	Luminous efficacy [lm/W]	Operating hours 1h	Operating hours 3h	Substitute for *	Weight [kg] (without packing material)
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163 ..G2/. MA



with self-contained battery and automatic self-monitoring

16307 0031	163 12L22G2/1 MA	17	2.320	810	137	•		1 x 36W	2,6
16307 0032	163 15L34G2/1 MA	23	3.330	830	145	•		1 x 58W	3,0
16307 0033	163 12L42G2/1 MA	29	4.110	810	142	•		2 x 36W	2,6
16307 0034	163 15L60G2/1 MA	41	5.970	830	146	•		2 x 58W	3,0
16307 0035	163 15L34G2/3 MA	24	3.330	830	139		•	1 x 58W	3,4
16307 0036	163 15L60G2/3 MA	42	5.970	830	142		•	2 x 58W	3,4

163 ..G2 ZB



for central battery systems

Applications:

For connection to group or central battery systems or to an emergency mains for illuminating escape routes.

We recommend Central Battery Systems from **INOTEC**.

Technical Data:

Light fitting with incorporated fuse for cut-off in case of failure according to DIN EN 60598-2-22, section 22.7.3.

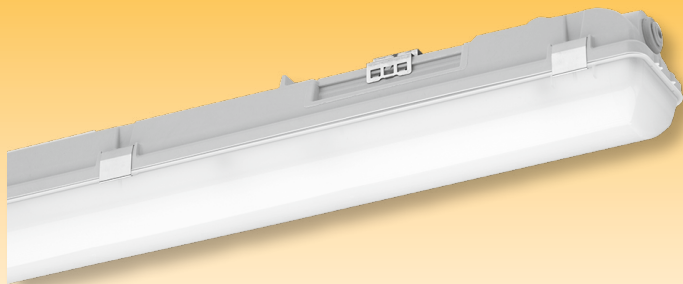
Connection voltage: 220-240V, 50/60Hz and 220V DC

Ambient temperature: from -20°C to +40°C

16307 0121	163 12L22G2 ZB	17	2.470	2.470	145			1 x 36W	2,2
16307 0122	163 15L34G2 ZB	22	3.370	3.370	153			1 x 58W	2,8
16307 0123	163 12L42G2 ZB	28	4.160	4.160	149			2 x 36W	2,2
16307 0124	163 15L60G2 ZB	40	6.090	6.090	152			2 x 58W	2,8

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories and spare parts please see section „Dustproof/Waterproof LED Light Fitting with Diffuser Series **163/164.. LED**“ in our catalogue. When ordering electronic parts or battery sets please always mention the article no. of the respective fitting.



LUXANO 2

Dustproof/Waterproof LED Emergency Light Fitting with Diffuser Series 167 ... G2

Applications:

Humid, wet, dusty rooms in workshops, industries, car parks etc. for lighting escape route.

Design:

Housing: Glass fibre reinforced polyester resin, foamed polyurethane gasket.

Diffuser: PMMA frosted for glare limitation, additional clear cover at the LED-modules to ensure contact protection against contact (Types ... MA).

Closures: stainless steel, in order to

ensure the contact protection. The light fitting can be opened with a tool only.

Reflector: Aluminium, painted, detachable carrying the electrical components.

Connection: 3/4-pole terminal.

Cable entries: Variable, closed knock-outs on the short and long sides, and on the top, 2 blanking plugs M20.

Mounting system: 2 reinforced retaining clips (also suitable for horizontal wall mounting), made of stainless steel, 2 brackets for chain suspension (included).

Technical data:

LED: Linear modules 4.000K, $R_a > 80$, lifetime $L_{80} > 50.000$ h at max. ambient temperature

Self contained NiMH battery, electronic charger, short circuit protected battery and reverse battery protection

Electronic deep discharge protection acc. to EN 61347-2-7

Re-charging time: 24h, acc. to EN 60598-2-22

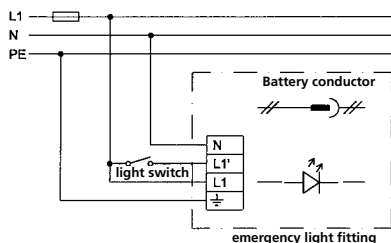
Automatic monitoring according to EN 62034. Indication of the test results by 2-coloured LED (luminescence diode) at the luminaire.

Mode of operation:

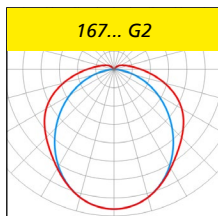
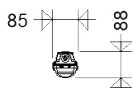
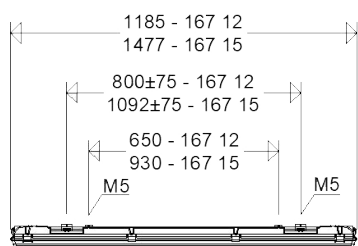
maintained operation = switching over to battery operation in case of mains failure, line modules will be operated with reduced luminous flux as emergency lighting.

Connection voltage: 220-240V 50/60Hz

Ambient temperature: -5°C up to +30°C (maintained operation)



Installation: connect battery conductor
Decommission: disconnect battery conductor



Options:

- according to „International Featured Standard Food“ (IFS)
- with dimming function via DALI2 interface, compatible with LIMAS Line (DIMD) Light Management System

For versions with self-contained battery:

- Emergency lighting unit with DALI interface for central monitoring, compatible with LIMAS Line PRO (MA-Z) Light Management System
- through-wiring
- 4-conductor: L1, L1', N, PE or
- 6-conductor: L1, L1', L2', L3', N, PE

For versions with central battery system:

- with quick connector Fast Connect (FC)
- with reduced luminous flux in DC mode (e. g. 15%, 50% etc.)
- with separate module for monitoring individual light fittings

Product highlights:

- always ready for operation due to permanent trickle charging of the battery (MA-versions)
- safety in an emergency, immediate light with maximum luminous flux even at low temperatures (MA versions)
- 100 % light output even in emergency mode (ZB-versions)
- homogeneous illumination by using frosted diffusers, no individual light spots visible, comfortable perception of light and excellent glare limitation
- high colour reproduction $R_a > 80$, according to the workplace guide lines suitable for nearly all plant locations
- reliable protection against contact due to additional clear cover (MA-versions)
- Closures made of stainless steel
- variable cable entries, closed knock-outs on the short and long sides, and on the back
- FastFix quick mounting system, with retaining clips made of stainless steel for variable mounting distances, without opening the fitting
- no throw-away light fitting - ECG and reflector with LED-modules can be replaced by qualified personnel on-site, resource-saving and environmentally friendly

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W] (incl. battery charge)	Luminous flux [lm]	Luminous flux [lm] (emergency operation)	Luminous efficacy [lm/W]	Operating hours 1h	Operating hours 3h	Substitute for *	Weight [kg] (without packing material)
-------------	------	---	--------------------	---	-----------------------------	--------------------	--------------------	------------------	---

167 ..G2/. MA



with self-contained battery and automatic self-monitoring

16703 0021	167 15L34G2/1 MA	29	3.710	810	128	•	1 x 58W	2,5
16703 0022	167 12L42G2/1 MA	32	4.250	810	133	•	2 x 36W	2,2
16703 0023	167 15L60G2/1 MA	44	6.000	810	136	•	2 x 58W	2,7
16703 0024	167 15L34G2/3 MA	29	3.710	810	128	•	1 x 58W	2,8
16703 0025	167 15L60G2/3 MA	44	6.000	810	136	•	2 x 58W	2,8

167 ..G2 ZB



for central battery systems

Applications:

For connection to group or central battery systems or to an emergency mains for illuminating escape routes.

We recommend Central Battery Systems from INOTEC.

Design:

As standard version 167... G2, but:

Mounting system: 2 reinforced retaining clips made of stainless steel, 2 bracket for chain suspension (included).

Technical Data:

Light fitting with incorporated fuse for cut-off in case of failure according to DIN EN 60598-2-22, section 22.7.3.

Connection voltage: 220-240V, 50/60Hz and 220V DC

Ambient temperature: from -20°C to +35°C

Notes:

In case of horizontal installation, the light fitting must be directly fixed with screws (washer and pressure disk are included) or it must be mounted with a reinforced retaining clips (see accessories)!

16703 0002	167 15L34G2 ZB	28	3.850	3.850	138		1 x 58W	2,0
16703 0003	167 12L42G2 ZB	30	4.100	4.100	137		2 x 36W	1,7
16703 0004	167 15L60G2 ZB	43	6.000	6.000	140		2 x 58W	2,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Accessories / Spare Parts

Article no.	Type	
spare glasses, PMMA, frosted		
16711 9003	167 036G2	PMMA for 167 12L.. G2
16711 9004	167 058G2	PMMA for 167 15L.. G2
Fasteners		
90123 9008	167G2 KE V10	stainless steel (packing unit 10)
Cable entries		
90063 9000	2511	blanking plug M20
Accessories		
90049 0004	167 VBC P	retaining clips, reinforced for horizontal wall mount (1 pair)



Compact LED Emergency/Escape Sign Light Fitting Series 164KL ...

Applications:

In humid, wet and dusty locations for illuminating and indicating any escape routes.

Design:

Housing: Glass fibre reinforced polyester, silicone gasket.

Diffuser: PMMA frosted for glare limitation, version ... L02 opalescent white (W).

(Pictograms – if required – to be orde-

red separately, see accessories).

Clips: Single-piece plastic clips (KK).

Reflector: Painted aluminium, can be suspended or removed and carries the electrical component.

Connection terminal: 3 or 4 poles.

Cable entries: Variable, on the short sides and on the top, 2 plugs M20.

Mounting: 2 mounting points, rubber gasket and washers included.

Technical Data:

LED: Linear module 4.000K or 6.500K (Versions ... L02W), $R_a > 80$, lifetime $L_{50} > 50.000h$ at max. ambient temperature

Battery: NiMH (versions ... L02/. W) or NiCd (versions ... L08/.), a constant trickle charge to the battery ensures readiness of operation at all times.

Electronic deep discharge protection according to EN 61347-2-7

Charging period 24h according EN 60598-2-22.

Automatic monitoring of the fitting according to EN 62034. Test results indicated by 2 colour LED.

Operating modes:

Maintained Mode: Switch over to battery back up in case of mains fail.

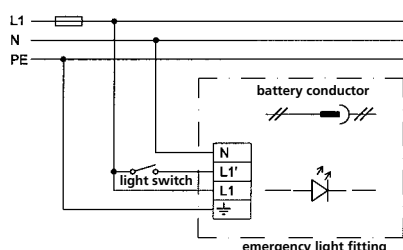
Version ... L08/. will operate at a reduced luminous flux.

Stand-by Mode: LED modules will switch on if mains fails.

Operating voltage: 220-240V; 50/60Hz

Ambient temperature: -5 to +30°C in maintained mode
-0 to +40°C in stand-by mode

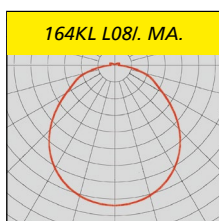
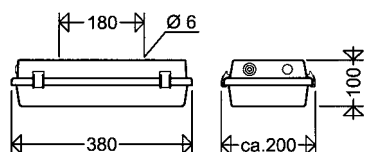
Wiring diagram maintained/stand by operation



Installation: connect battery conductor

Decommission: disconnect battery conductor

Stand-by operation: do not connect L1'



Options:

- stainless steel clips (KE)
- Cable entries to M25x1.5
- same side in/out wiring

For series with self-contained battery:

- Emergency lighting unit with DALI interface for central monitoring, compatible with LIMAS Line PRO (MA-Z) Light Management System

For series in case of connection to central power supply unit:

- with integrated LED supply- and monitoring module for monitoring individual light fittings connected to group- or central battery systems. We recommend systems of make INOTEC.

Product highlights:

- always ready for operation due to permanent trickle charging of the battery (MA-versions)
- safety in case of an emergency, instant light with maximum light output also at low temperatures (MA-versions)
- Central battery versions with 100% luminous flux in case of emergency (WMA - and ZB-versions)
- constant light output at all specified ambient temperatures
- excellent illumination of the pictogram. According to EN 1838 and DIN 4844
- components are replaceable by qualified personnel on-site (no single use light fitting)
- future proof by using LED-modules according to Zhaga standard

Article no.	Type	Power consumption [W] (incl. battery charge)	Luminous flux [lm]	Luminous flux [lm] (emergency operation)	Luminous efficacy [lm/W]	Light fitting for pictogram	Operating hours 1h	Operating hours 3h	Substitute for *	Weight [kg] (without packing material)
-------------	------	---	--------------------	---	--------------------------	-----------------------------	--------------------	--------------------	------------------	---

164KL .../. MA



with self-contained battery and automatic self-monitoring

16408 0060	164KL L02/1 W MA	5,0	270	270	54	•	•	---	---	1,1
16408 0061	164KL L02/3 W MA	5,0	270	270	54	•	•	---	---	1,6
16408 0041	164KL L08G2/1 MA	10,0	820	500	82	•	•	1 x 11W	---	1,3
16408 0042	164KL L08G2/3 MA	11,0	820	490	75	•	•	1 x 11W	---	1,7

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W] (incl. battery charge)	Luminous flux [lm]	Luminous flux [lm] (emergency operation)	Luminous efficacy [lm/W]	Light fitting for pictogram	Operating hours 1h	Operating hours 3h	Substitute for *	Weight [kg] (without packing material)
-------------	------	---	--------------------	---	--------------------------	-----------------------------	--------------------	--------------------	------------------	---

164KL... ZB



for central battery systems

For connection to group or central battery systems or to an emergency mains for illuminating and indicating escape routes. We recommend Central Battery Systems from INOTEC.

Technical Data:

Light fitting with incorporated fuse for cut-off in case of failure according to DIN EN 60598-2-22, section 22.7.3.

Connection voltage: 220-240V, 50/60Hz and 220V DC

Ambient temperature: -20°C to +30°C



Series 164KL... W with pictogram

16408 0045	164KL L02 W ZB	4,0	270	270	68	•			---	0,9
16408 0031	164KL L05G2 ZB	4,5	490	490	109				1 x 8W	1,0
16408 0032	164KL L08G2 ZB	8,5	840	840	99				1 x 11W	1,0
16408 0033	164KL L11G2 ZB	10,0	1.150	1.150	115				1 x 18W	1,0
16408 0034	164KL L15G2 ZB	14,0	1.490	1.490	106				1 x 24W	1,0

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

Self-adhesive pictogram green/transparent¹⁾



121/32



121/33



121/34



121/35



121/36



121/37



121/38



121/39

for light fittings with white opalescent glass
windows for escape route signs acc. to DIN EN ISO
7010 und ASR A1.3.

Viewing distance = 30 m.

Accessories / Spare Parts

Article no.	Type	
Spare glasses		
16413 9001	164000 W	PMMA white opalescent for 164KL... W
16413 9007	164000 F G2	PMMA frosted for 164KL L.. G2
Brackets		
90232 0004	DA	ceiling bracket
Self-adhesive pictograms		
12112 0025	121/32	emergency EXIT „up“
12112 0026	121/33	emergency EXIT „left“
12112 0027	121/34	emergency EXIT „right“
12112 0028	121/35	emergency EXIT „below“
12112 0029	121/36	emergency EXIT „up-left“
12112 0030	121/37	emergency EXIT „up-right“
12112 0031	121/38	emergency EXIT „down-left“
12112 0032	121/39	emergency EXIT „down-right“

Further accessories and spare parts see section „Dustproof/Waterproof LED Light Fitting“ Series 164KL... in our catalogue. When ordering electronic parts or battery sets please always mention the article no. of the respective fitting.



Small Impact Resistant LED Emergency/Escape Sign Light Fitting Series 131 ... LED

Applications:

In humid, wet and dusty locations for illuminating and indicating the escape routes.

Design:

Housing: White polycarbonate.

Diffuser: Polycarbonate, ... L02 versions opalescent white (W). Hinged and detachable at one end and closed at the other end with captive stainless steel

screw. (Pictograms to be ordered separately see accessories)

Reflector: Aluminium white painted.

Connection: 3- or 4-poles.

Cable entries: 1 blanking plug M20 at each end.

Mounting system: 2 holes for ceiling mounting. Sealing and pressure disks inside each fitting.

Technical data:

LED: Linear module 4.000K or 6.400K (Versions ... L02W), $R_a > 80$, lifetime $L_{80} > 50.000h$ at max. ambient temperature

NiMH battery mounted on the reflector. A constant trickle charge to the battery ensures readiness of operation at all times.

Electronic deep discharge protection acc. to EN 61347-2-7

Recharging time: 24 h, acc. to EN 60598-2-22.

Automatic monitoring the emergency light fitting acc. to EN 62034. Indication of the test results by 2-colour LED on the light fitting.

Modes of operation:

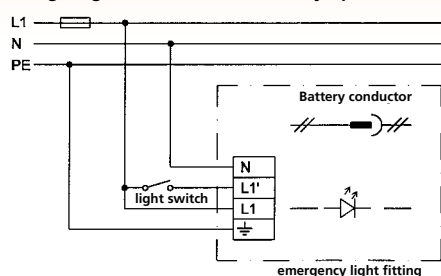
Maintained operation: Switch over to battery operation in case of mains failure.

Stand-by operation: Emergency light switches on in case of mains failure.

Connection voltage: 220-240V, 50/60Hz

Ambient temperatures: -5°C up to +30°C for maintained version
0°C up to +40°C for stand-by version

Wiring diagram maintained/stand by operation

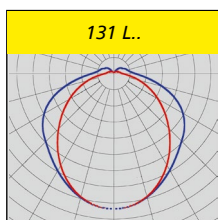
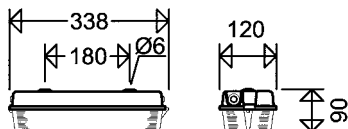


Installation: connect battery conductor

Decommission: disconnect battery conductor

Stand-by operation: do not connect L1'

series 131...



Options:

For series with self-contained battery:

– Emergency lighting unit with DALI interface for central monitoring, compatible with LIMAS Line PRO (MA-Z) Light Management System

For series in case of connection to a central power:

– with separate LED supply- and monitoring module for monitoring individual light fittings connected to group- or central battery systems. We recommend Central Battery Systems from INOTEC.

Product highlights:

- robust, impact resistant compact light fitting (entirely made from PC)
- best suitable in the food industry and in the food processing industry especially in risky areas falling under the IFS standards (International Featured Standard Food)
- safety in an emergency, immediate full light (100% luminous flux) even at low temperatures
- stable luminous flux in the emergency operation independent from the ambient temperature
- always ready for operation due to permanent trickle charging of the battery (MA-versions)
- outstanding even illumination of the pictogram, fulfills EN 1838 and DIN 4844
- reduced battery capacity (MA-versions)
- little thermal stress
- components are replaceable by qualified personnel on-site (no single use light fitting)
- future proof by using LED-modules according to Zhaga standard



Emergency
Light Fittings

Properties, limitations and details for controlling LED-light fittings:

■ See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W] (incl. battery charge)	Luminous flux [lm]	Luminous flux [lm] (emergency operation)	Luminous efficacy [lm/W]	Light fitting for pictogram	Operating hours 1h	Operating hours 3h	Substitute for *	Weight [kg] (without packing material)
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131 ... / . W MA



with self-contained battery and automatic self-monitoring

13112 0030	131 L02/1 W MA	5,0	240	240	48	•	•	---		1,0
13112 0031	131 L02/3 W MA	5,0	240	240	48	•	•	---		1,2
13112 0110	131 L03/1 MA	5,0	300	300	60		•		1 x 8W	1,0
13112 0111	131 L03/3 MA	5,0	300	300	60			•	1 x 8W	1,2

131 ... ZB



for connection to central power supply unit

For connection to group or central battery systems or to an emergency mains for illuminating and indicating escape routes. We recommend Central Battery Systems from INOTEC.

Technical data:

Light fitting with incorporated fuse for cut-off in case of failure according to DIN EN 60598-2-22, section 22.7.3.

Connection voltage: 220-240V, 50/60Hz and 220V DC

Ambient temperature: -20°C to +30°C

13112 0010	131 L02 W ZB	4,0	240	240	60	•		---		0,4
13112 0011	131 L04 ZB	4,0	460	460	115				1 x 8W	0,5
13112 0012	131 L07 ZB	8,0	780	780	98				1 x 11W	0,5
13112 0013	131 L10 ZB	10,0	1.050	1.050	105				1 x 18W	0,5
13112 0014	131 L13 ZB	13,0	1.370	1.370	105				2 x 11W	0,5

* The given information is for rough orientation only. In each individual case a lighting calculation is necessary.

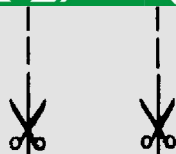


Series 131... W LED with pictogram

Self-adhesive pictogram

for identification of escape routes according to DIN EN ISO 7010 und ASR A1.3.

Viewing = 15m.



Accessories / Spare Parts

Article no.	Type	
Spare glasses		
13111 9001	131000W	PC opalescent white for 131... W
13111 9006	131000F	PC frosted for 131 L...
Standard pictogram, self-adhesive		
90011 0002	265/76/3	for 131... W

Accessories and spare parts please see section „Dustproof/Waterproof LED Light Fitting with Diffuser Series 130/131 ... LED“ in our catalogue. When ordering electronic parts or battery sets please always mention the article no. of the respective fitting.



Compact Emergency and Escape Sign Light Fitting with Highpower-LED Series 3611 ...

Applications:

Humid, wet and dusty locations in the trade, commerce and industry for emergency lighting as well as for illuminating and indicating any escape routes.

Design:

Housing: Die cast aluminium, white. All electrical components located inside the housing, wired ready for connection.

Cover: PC frosted, silicone gasket. As

indication sign light fitting with white opalescent PC glass (W) and pictogram. (Please order separately, see „Spare parts“).

Connection terminal: 3 or 4 poles.

Cable entry: 1 plug M20 on the front side.

Mounting: 2 outer fastening points.

Technical data:

LED: Linear module 4.000K or 6.400K (Versions ... L02W), $R_a > 80$,

lifetime $L_{80} > 60.000h$ at 25°C ambient temperature,

lifetime $L_{80} > 50.000h$ at max. ambient temperature

Built-in NiMH battery: A constant trickle charge to the battery ensures readiness of operation at all times.

Electronic deep discharge protection acc. to EN 61347-2-7

Recharging time: 24 hours, acc. to EN 60598-2-22.

Automatic monitoring of the emergency light fitting acc. to EN 62034. The test results are indicated by a two-colour LED on the fitting.

Modes of operation:

Stand-by operation: Emergency light switches on in case of mains failure

Maintained operation: Switching over to battery operation in case of mains failure

Voltage: 220-240V, 50/60Hz.

Ambient temperature: -5°C up to +30°C in stand-by operation
0°C up to +40°C in maintained operation

Options:

– same side in/out wiring

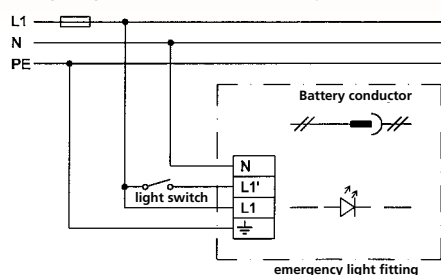
For series with self-contained battery:

– Emergency lighting unit with DALI interface for central monitoring, compatible with LIMAS Line PRO (MA-Z) Light Management System

For series in case of connection to a central power supply unit:

– with integrated LED supply- and monitoring module for monitoring individual light fittings connected to group- or central battery systems. We recommend Central Battery Systems from INOTEC.

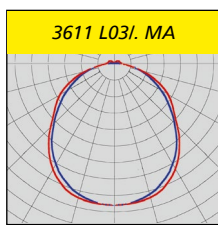
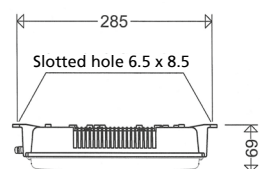
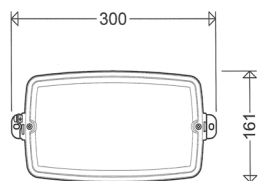
Wiring diagram maintained/stand by operation



Installation: connect battery conductor

Decommission: disconnect battery conductor

Stand-by operation: do not connect L1'



Product highlights:

- robust light fitting for rough environments
- best suitable in the food industry and in the food processing industry especially in risky areas falling under the IFS standards (International Featured Standard Food)
- safety in an emergency, immediate full light (100% luminous flux) even at low temperatures
- stable luminous flux in the emergency operation independent from the ambient temperature
- always ready for operation due to permanent trickle charging of the battery (MA-versions)
- outstanding even illumination of the pictogram, fulfills EN 1838 and DIN 4844
- easy to install due to external mounting lugs
- components are replaceable by qualified personnel on-site (no single use light fitting)
- future proof by using LED-modules according to Zhaga standard

Article no.	Type	Power consumption [W] (incl. battery charge)	Luminous flux [lm]	Luminous flux [lm] (emergency operation)	Luminous efficacy [lm/W]	Light fitting for pictogram	Operating hours 1h	Operating hours 3h	Weight [kg] (without packing material)
3611 .../. MA      									

with incorporated battery set and monitoring system

36111 0050	3611 L02/1 W MA	5,0	170	170	34	•	•		1,0
36111 0051	3611 L02/3 W MA	5,0	170	170	34	•		•	1,2
36111 0033	3611 L03/1 MA	5,0	290	290	58		•		1,0
36111 0034	3611 L03/3 MA	5,0	290	290	58			•	1,2

Properties, limitations and details for controlling LED-light fittings:

See "Technical Supplement"

All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.

Article no.	Type	Power consumption [W] (incl. battery charge)	Luminous flux [lm]	Luminous flux [lm] (emergency operation)	Luminous efficacy [lm/W]	Light fitting for pictogram	Operating hours 1h	Operating hours 3h	Weight [kg] (without packing material)
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3611... ZB



for connection to central power supply unit

For connection to group or central battery systems or to an emergency mains for illuminating and indicating escape routes. We recommend Central Battery Systems from INOTEC.

Technical data:

Light fitting with incorporated fuse for cut-off in case of failure according to DIN EN 60598-2-22, section 22.7.3.

Connection voltage: 220-240V, 50/60Hz and 220V DC

Ambient temperature: -20°C to +30°C

36111 0030	3611 L02 W ZB	4,0	170	170	43	•			0,9
36111 0035	3611 L05 ZB	6,0	660	660	110				0,9
36111 0036	3611 L10 ZB	10,0	1.180	1.180	118				0,9



Type 3611 ... with pictogram

Self-adhesive pictogram



220/110/33 .../34 .../35

For marking escape routes acc.to DIN EN ISO 7010 and ASR A1.3.

Viewing distance = 22m.

Accessories / Spare Parts

Article No.	Type	
spare diffusers		
36004 9003	3611/03	PC, frosted
36004 9002	3611/02	PC, white opalescent
Self adhesive legends		
12112 0101	220/110/33	Emergency exit to the left
12112 0102	220/110/34	Emergency exit to the right
12112 0103	220/110/35	Emergency exit below

Accessories and spare parts please see section „Dustproof/Waterproof LED Light Fitting with Diffuser Series **3611 ... LED**“ in our catalogue. When ordering electronic parts or battery sets please always mention the article no. of the respective fitting.

SCHUCH - Technical Supplement

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The technical appendix provides information and notes that are important for the planning, installation and operation of lighting systems with SCHUCH Light Fittings.

1. Explosion-Protected lighting

1.1 Zone Classification (acc. to the standards 1999/92/EG)

Hazardous areas are classified into the following zones in accordance with the probability of the existence of an explosive atmosphere:

Gases, vapours or mists

- Zone 0** An area in which an explosive atmosphere is present either permanently or over long periods of time or frequently as a mixture of air and combustible gases, vapours or mists.
- Zone 1** An area where under normal operating conditions an explosive atmosphere may occasionally be present as a mixture of air and combustible gases, vapours or mists.
- Zone 2** An area where an explosive atmosphere is not likely to be present under normal operation but if it should occur for some reason it would normally only exist for a short period time as a mixture of air and combustible gases, vapours or mists.

Dusts

- Zone 20** An area in which an explosive atmosphere is present either continuously or over a long time or frequently as a cloud of combustible dust in the air.
- Zone 21** An area where under normal operating conditions an explosive atmosphere may occasionally be present as a cloud of combustible dust in the air.
- Zone 22** An area where an explosive atmosphere is not likely to be present under normal operation but if it should occur for some reason it would normally only exist for a short period time as a cloud of combustible dust in the air.

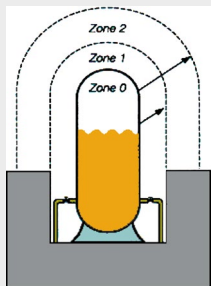


Illustration 1 and Illustration 2 show typical examples for the Zoning for flammable liquids

Illustration 1: Storage of flammable liquids

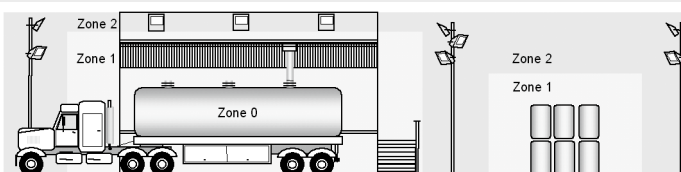


Illustration 2: Filling and storage of flammable liquids

1.2 Categories of appliances

Acc. to the ATEX standards (2014/34/EU) the appliances for application in their relative zones are classified into categories. Similar to the different zones there are three different categories for group II of the equipment. Consequently, the explosion protected products can be allocated to the ex-zones existing in the production area.

Category 1 comprises appliances which have been designed in such a way that they may be operated in compliance with the characteristic sizes given by the manufacturer and which ensure a high degree of safety. Appliances of this category may be used in ZONES 0 and 20 as per their certification.

Category 2 comprises appliances which have been designed in such a way that they may be operated in compliance with the characteristic sizes given by the manufacturer and which ensure a high degree of safety. Appliances of this category may be used in ZONES 1 and 21 as per their certification.

Category 3 comprises appliances which have been designed in such a way that they can be operated in compliance with the characteristic sizes given by the manufacturer and which ensure a standard level of safety. Appliances of this category may be used in ZONES 1 and 2 as per their certification.

1.3 ATEX Equipment Temperature classes acc. to IEC 60079-0

An important parameter for the subdivision of the gases is the ignition temperature.

The ignition temperature is the lowest surface temperature value which ignites an explosive atmosphere. The maximum surface temperature must always be lower than the ignition temperatures of the gas-air or vapour-air mixture in which the product is applied.

Temperature classification	Maximum permissible surface temperatures of equipment [°C]	Ignition temperatures of inflammable substances [°C]
T1	450	> 450
T2	300	> 300 ≤ 450
T3	200	> 200 ≤ 300
T4	135	> 135 ≤ 200
T5	100	> 100 ≤ 135
T6	85	> 85 ≤ 100

1.4 Classification of Gases and Vapours into Explosion Groups and Temperature Classes

Explosion group	Classification of gases and vapours into temperature classes					
	T1	T2	T3	T4	T5	T6
IIA	Acetone Ethane Ethyl acetate Ammonia Ethyl chloride Benzol Acetic acid Carbon monoxide Methanol Methyl chloride Naphtalene Phenol Propane Toluol	i-amyl acetate n-butane n-butyl alcohol Cyclohexane 1,2-dichloroethane Acetic anhydride	Gasoline Diesel fuel Aviation fuel Heating oils n-hexane	Acetaldehyde	-	
IIB	Town gas	Ethylene Ethyl alcohol	Hydrogen sulphide	Ethyl ether	-	
IIC	Hydrogen	Acetylene			-	Carbon disphide
I	Methane					

1.5 Modes of Protection according to European/IEC Standards

In areas where explosive atmospheres may occur despite the explosion protection measures employed, only explosion protected electrical equipment must be used.

EN 60079-7	- stands for: „Increased safety“	- code: „e“
EN 60079-1	- stands for: „Flameproof enclosure“	- code: „d“
EN 60079-5	- stands for: „Sand filling“	- code: „q“
EN 60079-2	- stands for: „Pressurised apparatus“	- code: „p“
EN 60079-11	- stands for: „Intrinsic safety“	- code: „i“
EN 60079-18	- stands for: „Moulding“	- code: „m“
EN 60079-15	- stands for: „Zone 2“	- code: „n“
EN 60079-28	- stands for: „Limitation of optical radiation“	- code: „op is“
EN 60079-31	- stands for: „Protection by enclosure“	- code: „t“

1.6 Special operating conditions

If there are special conditions of use which place particular stress on the light fitting chemically, mechanically, thermally, electrically or due to vibration or humidity, etc., this must be discussed in advance between the operator and the manufacturer so that additional measures can be taken if necessary. This is indicated both by Directive 99/92/EC and by the standard DIN EN 60079-14 or VDE 0165, which is authoritative for the operator of electrical equipment in potentially explosive atmospheres.

Ex light fittings usually have a high IP degree of protection, which is expressed, for example, by the marking „IP66“. However, this does not mean that the light fitting is hermetically sealed.

The light fittings are classified and tested according to the European standard EN 60529 in various degrees of protection. This standard contains the German translation of the international standard IEC 60529 and is also a VDE regulation, as it has been approved by the VDE and classified under VDE 0470, Part 1.

In the current edition of this standard, a brief description and definition for the degrees of protection represented by the second code digit is given in section 6.

For example, the short description for the second code number 6 is: „Protected against strong water jets.“ The definition given is: „Water splashing against the enclosure from any direction as a strong jet shall have no harmful effects.“

In this standard, the humidity of the air is not considered as a relevant criterion when classifying the degrees of protection.

Humid and cold ambient conditions, combined with low duty cycles, can limit the use of light fittings with electronic ballasts.

Before mounting light fittings, e.g. in rainwater retention basins, in water treatment plants or above clarification basins, etc., the manufacturer should be consulted in order to use special designs if necessary.

2. General remarks

2.1 Permissible ambient temperatures

If no additional specification is available, LED light fittings are built for a maximum permissible ambient temperature of -20°C to +25°C.

Emergency light fittings are excluded from this.

Explosion-proof equipment is generally designed for an ambient temperature of up to +40°C.

Special designs for lower (T..) or higher (H..) temperatures on request.

3. Properties of LED light fittings

3.1 Rated values as specified in data-sheets

All tolerances of rated values of light fitting input power, luminous flux and efficacy are in accordance with IEC 62722-2-1. Light fitting luminous flux is no more than 10% less than rated luminous flux. Light fitting input power is no more than 10% higher than rated input power. If not specified otherwise all rated values refer to an ambient temperature of $T_a = 25^\circ\text{C}$. If LED light fittings are operated at higher temperatures luminous flux decreases by about 1.5% per 10K.

3.2 Lifetime specifications of LED light fittings

Data-sheets provide values of rated life L_x . L_x is the time after which luminous flux has dropped to x% of initial luminous flux. At rated life L_x luminous flux equals x% of rated value. Typical values for “x” are 70 (L70) or 80 (L80). Life time metrics are based on defined test procedures. Figures given in data-sheets are expected values. Thus, the indicated rated life is not a guaranteed light fitting feature. E.g. L80B10 \geq 50,000h means that, according to statistics, 90% (100-10) of light fittings maintain at least 80% of initial luminous flux after 50,000.

For the average rated life L_x (B_x value omitted), $B_x = B_{50}$ applies. According to a recommendation of the ZVEI, this value should be specified in the data sheets. Failures of control gear as well as the degree of contamination of the light fitting are not taken into account here.

The failure rate of control gear depends not only on the specification of the components and their quality, but also to a large extent on the operating temperature. The following applies: for t_c max. (maximum permissible device temperature), the failure rate is 2‰ per 1,000 h, i.e. for a service life of 50,000 h, the percentage of failed devices is approx. 10 %.

Example: With 100 ECGs in continuous operation (at the max. permissible device temperature), purely statistically up to 10 devices have failed after 5.7 years. At lower ambient temperatures, the service life is significantly extended.

3.3 Switching cycles

Frequent switching may cause an increased LED-module failure rate. In accordance with IEC rules outdoor light fittings are designed for one cycle per day. While for indoor light fittings up to three cycles per day are assumed. If it is required to switch light fittings more frequent it is recommended to employ corridor mode (DIMC). Corridor mode allows unlimited switching of light fittings.

3.4 Use of LED light fittings in corrosive environments

Corrosive gases and other corrosive substances (e.g. ammonia, sulfuric or chlorine compounds) may damage LED light fittings. Depending on substance, concentration, temperature and exposure time, the damage may result in total failure of light fitting.

Even light fittings with high degree of ingress protection can be affected since corrosive atmospheres can penetrate into all light fittings. Suitability of light fittings for particular purposes can be assessed e.g. by means of a field test.

We recommend the use light fittings out of our product range, which are especially designed for the use in corrosive atmospheres.

- **Version ER:** Increased protection against corrosive atmospheres. Light fittings of type ER are approved e. g. for the use in production and storage areas for tires.
- **Version HR:** High Protection against corrosive atmospheres. Light fittings of type AUS HR are approved e. g. for use in outdoor areas of wastewater treatment plants.
- **Version XR:** Absolutely gas-tight light fitting. The Primo XR light fitting is approved for hazardous gas areas (exception: EX-Zones, swimming pools, exposure to chemicals that attack PMMA or stainless steel).

3.5 Use of LED light fittings in a damp atmosphere

If light fittings are operated in damp and cold ambient conditions in conjunction with low duty cycles, there is a risk of premature failure. Light fittings with a higher protection class are also affected. Critical applications are e.g. rainwater retention basins, water treatment plants and certain applications in the agricultural sector.

After the light fitting is switched off, a negative pressure is created, which leads to the intake of moist outside air. This atmosphere can damage or destroy electronic components in the light fitting.

This problem can be remedied by switching on the lamp regularly and for longer periods of time. Under certain circumstances, an additional air vent may be required. Where this is not possible, only XR or HR lamps should be used (gas-tight or corrosion-resistant). Other suitable special designs on request.

3.6 Mounting of protection class II LED outdoor light fittings to fixing devices with electrical insulation against earth potential.

When mounting protection class II LED light fittings to fixing devices with electrical insulation against earth potential, electrostatic charges could appear (for example, due to weather conditions) which may cause damage of control gear and/or LED modules.

None-Grounded fixing devices are, for example, wooden, concrete or plastic poles, electrically insulated mounted steel poles, wall fixations or rope suspensions. Using protection class I light fittings is recommended in these cases. These allow electric charges to discharge via protective earth (PE) conductor.

If protection class II light fittings are to be installed, special designs equipped with equipotential compensation are available.

3.7 Overvoltage protection of LED outdoor light fittings

LED outdoor light fittings and light fittings with electronic control gear for conventional lamps are much more sensitive to surge voltages than light fittings equipped with magnetic ballasts.

Due to switching events and load changes voltages of up to 6 kV may occur in outdoor power grids.

Lightning strikes in the surroundings of outdoor installations can lead to voltages of up to many times higher than 10 kV depending on distance to light fitting and conductivity of soil.

Lightning that strikes directly into a light fitting will cause such high pulses that no cost-efficient measure can prevent failure of light fitting.

Control gear utilized by SCHUCH is having an enhanced overvoltage protection. By installing an additional overvoltage protection device into a light fitting or into a terminal box protection level can be further increased.

Using protective devices that disconnect light fittings from power supply when they themselves wear out does further enhance overvoltage protection.

Regulative provisions limit higher protection levels of protection class II light fittings. It is not permitted to connect protective earth conductor to protection class II fittings. However a comprehensive overvoltage protection is only feasible if an earth conductor would be available and housing of light fitting and pole are connected via protective earth conductor.

We further recommend to install surge arresters into electrical distribution. Thus absorbing direct and indirect lightning strikes into power grids.

Probability of lightning strikes varies very much locally. Should LED outdoor light fittings or conventional light fittings with electronic control gear be installed in regions with high likelihood for lightning strikes we highly recommend to utilize protection class I light fittings with additional protective measures employed in the light fitting, terminal box and electrical distribution.

3.8 Operating restrictions for LED outdoor light fittings with power reduction

Very rarely, leakage currents may occur between the phases or between phase and neutral conductor. This may cause a false switching behavior of light fittings with power reduction via control phase. Then, the light fittings fail to switch on power reduction.

Leakage currents occur due to old or damaged cables with improper isolation or due to the high capacity coupling.

In these cases, one should install a "shunting-box" between control phase and neutral conductor (available on request). The shunting box may be installed in the terminal box or inside the electrical distribution.

When changing single light fittings in existing installations with elder light fittings or when extending installations, one could face a problem related to power reduction. For these cases, one should mount additional relays at control phase entry in the already installed light fittings. In such cases, it is more cost-effective to add light fittings with stand-alone power reduction (LA => reduction without control phase).

3.9 Inrush currents of LED light fittings – limited capacity of automatic circuit breakers

Contrary to light fittings with magnetic ballasts, LED light fittings start all at the same time (as well as in case of ECGs with conventional lamps).

Inside the storage capacitor of the above ECGs, a high charging current occurs when switching on. The maximum permissible number of light fittings per miniature circuit breaker is not limited by the operating current but by the inrush current. It can be found online on the respective product data sheet of the light fitting.

3.10 Photobiological Safety

Photobiological safety of light fittings is treated in IEC 62471:2006. This standard provides information on safety limits and risk groups for irradiation as well as measurement methods for UV-, visible and IR- spectral range. The protective goal is to prevent human eye and skin from thermal and photochemical hazards.















Almost all light fittings of SCHUCH are within risk groups 0 and 1. Thus they are harmless since they cannot cause any photobiological impairment to human skin or eye. Light fittings that fall under risk group 2 are marked by a pictogram "do not stare at operating light source". In addition mounting instructions provide information on minimum distance required for safe view into light fitting. Due to installation height any hazard can be ruled out for most class 2 technical light fittings since view from short distance is not possible. Doubling distance reduces irradiation to one quarter (inverse-square law). Therefore in most cases caution may only be required during maintenance work.

Risk group 3 light fittings disqualify for approval since they would imply a non neglectable risk.

4. Safety classification for light fittings




The selection of light fittings for specific applications requires the consideration of corresponding protection types and protection classes.

4.1 Table of ingress protection


	1 st CHARACTERISTIC NUMERAL	2 nd CHARACTERISTIC NUMERAL	
RA- TING	PROTECTION AGAINST FOREIGN BODIES	PROTECTION AGAINST HARMFUL ENTRY OF WATER	Symbol
IP 20	solid objects > 12 mm	non-protected	
IP 23	solid objects > 12 mm	protected against spraying water	
IP 40	solid objects > 1 mm	non-protected	
IP 43	solid objects > 1 mm	protected against spraying water	
IP 44	solid objects > 1 mm	protected against splashing water	
IP 54	dust protected	protected against spraying water	 
IP 55	dust protected	protected against water jets	  
IP 65	dust tight	protected against water jets	  
IP 66	dust tight	protected against heavy seas	
IP 67	dust tight	protected against effects of immersion in water between 15cm and 1m for 30 minutes	  
IP 68	dust tight	protected against effects of immersion in water under pressure for long periods	
IPx9k	dust tight	protected against effects of high pressure water jets	

Protection classes according to DIN VDE 0711/EN 60598/IEC 598

4.2 Protection classes

	Meaning	Notes
I	 Light fittings with connection point for protective conductor, to which all touchable metal parts must be connected, which can immediately be on mains voltage level in the event of a fault.	Connection to the mains protective conductor is mandatory. The symbol is attached to the connection point.
II	 In the case of such light fittings, no metal parts may be touched that could immediately be on mains voltage level in the event of a fault (protective insulation or double insulation).	The light fitting must not have a protective earth connection and must not be connected to a protective earth conductor (except for functional earth*).
III	 Light fittings for operation with safety extra-low voltage, i.e. with voltages below 42 V, which are generated with a safety transformer according to VDE 0551 or taken from batteries or accumulators.	

* Functional earth: grounding of a point in a system, which is necessary, for example, to start a lamp or to meet EMC requirements.

This is not part of the electrical protection system. Symbol: 

5. Areas of application and properties of SCHUCH light fittings

It is essential to observe DIN VDE 0100 when selecting the light fittings (see section 4).

5.1 Use of damp-proof light fittings taking into account their degree of protection

Water proof light fittings with a high degree of protection (IP 65) are indoor light fittings for ceiling, pendant and mounting rail installation (horizontal installation). If these light fittings are not used as intended, e.g. if they are mounted outdoors, in a different mounting position and/or in extremely high humidity, condensation may occur. A negative pressure is created in these very tight light fittings during the cooling phase after switching off or in the event of strong temperature fluctuations (e.g. mounting in outdoor installations). This makes it possible for moist air to be drawn into the interior of the light fittings and to condense. Water accumulation in a moisture-proof light fitting is thus by no means due to a leaky light fitting, but rather to a light fitting that is too impervious. (The tighter the light fitting, the greater the risk of condensation).

For outdoor use, special designs with affix ...AUS are available. These lights are suitable for unprotected outdoor use.

When mounting water proof lights on cold surfaces, condensation can also occur. In such cases, it is necessary to mount the light fittings at a distance from the mounting surface. Light fittings with protection class IP65 are „jet water protected“. Direct spraying (e.g. during cleaning work) with high-pressure cleaners/steam jets is not permitted. The forces that occur are many times higher than during a water jet test and can lead to water ingress.

5.2 Use of light fittings in animal husbandry

When used in stables, light fittings are polluted in particular by ammonia from the animals' excrement.

The LED modules mounted in linear light fittings of classic design (e.g. series 161 or 163) and their control gear are damaged by ammonia exposure.

We recommend the use of the „Primo XR LW“ profile tube light fitting. This light fitting is hermetically sealed to prevent aggressive substances from entering the interior of the light fitting.

The linear light fitting „LUXANO 2 LW“, or other light fittings in the „LW“ or „ER“ versions are also suitable for most agricultural applications. Please consult us.

In poultry farming, the „Primo XR LW DIMD“ light fitting should be used. This meets the special requirements regarding flicker as required by the Regulations on Animal Husbandry.

5.3 Yellowing of glasses made of PC

Polycarbonate (PC) is a plastic that turns brown when exposed to UV radiation. When installing the light fittings in outdoor areas the material is exposed to UV-radiation, but also bulbs may emit UV light (eg fluorescent lamps).

To delay the discoloration of the PC we are using so-called UV stabilizers in the respective materials. These stabilizers slow down the process significantly, but do not prevent it. The time course of the discoloration is dependent on the degree of exposure to UV radiation. The discoloration is not a product defect.

6. Plastics in SCHUCH light fittings

6.1 Chemical resistance

The housing of many SCHUCH light fittings are made of glass fibre reinforced polyester. This material is heat resistant, mechanically stable, electrically insulating, weather-resistant and chemically resistant.

The covers of the light fittings are mostly made of the following materials: silicate glass, polycarbonate(PC) or polymethyl methacrylate (PMMA).

Based on the current state of the art and the information provided by the respective material manufacturers, the following table shows the resistance of PMMA and PC against various chemicals. Experience shows that the temperature of chemical (aggression) substances often plays a significant role.

Parts made of PC are impact resistant and more resistant to heat than parts made of PMMA. PC is not resistant against all chemical agents. For cleaning, we recommend warm water with a mild detergent. Subsequently the material should be thoroughly rinsed with clean water. After rinsing, there must be no residual amounts of the cleaner on the treated light fitting. The PH value of the cleaner must be less than 7.5. Due to this no soap or similar must be used. In particular, we would like to point out that PC is not resistant to oils and greases! For moisture-proof diffuser light fittings with plastic closures, their chemical resistance must also be taken into account (please consult us). In many cases, KE closures (made of stainless steel) are an alternative.

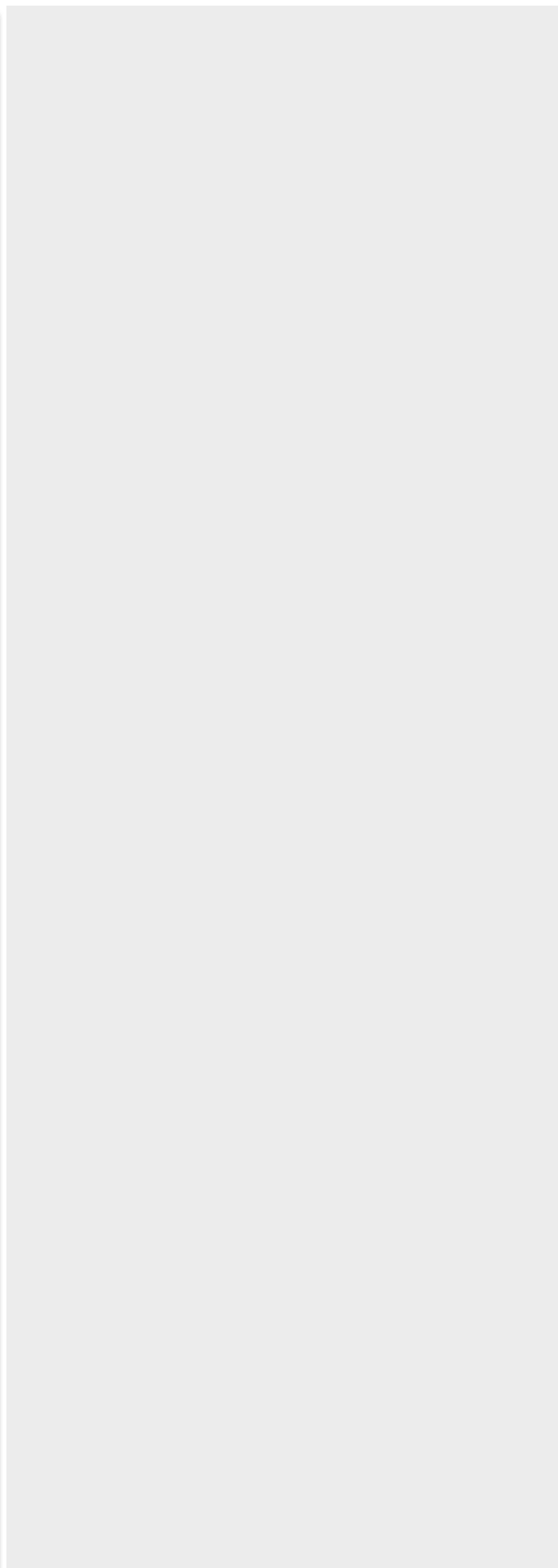
Material	Poly-methylacrylat (PMMA)	Polycarbonat (PC)	Thermoplastic polyester (PBT)
Acetone	–	–	–
Ethylalcohol (to 30 %)	o	o 96% ¹⁾	+
Battery acid	+	+	k.A.
Ammoniac	+	–	+ up to 10% ¹⁾
Boric acid 3 %	+	+	k.A.
Sodium Hypochlorite	+	–	k.A.
Chlorine (moist)	–	–	k.A.
Chromium acid 10 %	o	+	k.A.
Acetic acid concentrated	–	–	–
Acetic acid (up to 10%)	+	+ < 10% ¹⁾	+
Formaldehyde (up to 10%)	o	+	k.A.
Glycerin	+	o	+
Uric acid (up to 20%)	+	k.A.	k.A.
Potassium (20-25°C)	+	–	–
Kerosene (aviation gasoline)	o/–	–	+
Sea water	+	+	+
Methyl alcohol (up to 23°C)	o/–	–	+
Lactic acid < 4%	+	+	k.A.
Sodium chloride	+	+	+ up to 10% ¹⁾
Sodium hydroxide Solution 20-25 °C	+	–	+
Petroleum	o	o	+
Phosphoric acid Concentrated	–	+ 10 up to 30% ¹⁾	+ 25% ¹⁾
Soap liquor (at 23 °c)	+	o	up to 10% OK
Sulfuric acid H2SO4	–	–	–
Sulfuric acid up to 30%	+	+	+ bis 10% ¹⁾
Sulphur dioxide dry (at 23 °C)	–	o	k.A.
Turpentine (at 23 °C)	+/o	–	+
Toluene	–	–	–
Acidity of wine	+ up to 50% ¹⁾	+ up to 10% ¹⁾	k.A.
Citric acid up to 20 %	+	+	+ up to 10% ¹⁾

Legend: + = resistant, O = limited resistant – = volatile (unstably) ¹⁾ = concentration

7. Corrosion resistance of sheet steel light fittings

Our steel sheet light fittings are powder coated with a high quality polyester paint. In addition to the corrosion protection, the coating offers a very good scratch resistance. Depending on the conditions of use at the installation site, however, corrosion may still occur.

Examples are applications with permanent humidity, mounting locations close to the sea, under canopies or areas with aggressive media / chemicals. For such conditions we offer, depending on the requirement, modified versions with KTL coating, aluminum or stainless steel housing.



Summery of the products

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*With passion for
excellent lighting - since 1895!*



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