GENERAL CATALOGUE

SOLUTIONS THROUGH TECHNOLOGY









TECHNOR ITALSMEA

A COMPANY OF MARECHAL ELECTRIC

EDITO

TECHNOR® is a worldwide technology company of MARECHAL ELECTRIC GROUP, with operational businesses in Italy, United Arab Emirates and Singapore, and is leader in the **design and manufacture of luminaires, enclosures and electrical panels for potentially explosive atmospheres**.

TECHNOR® has a high level of experience in developing and designing Ex equipment for most applications.
These include offshore oil installations, refineries, petrochemical plants, ships and FPSOs, chemical, pharmaceutical, food industries as well as other industries in which explosible dusts might represent a hazard, such as foodstuffs manufacture grain silos and textile.

Products enable safe transport and application of electric signals and power in hazardous areas. The core business is in the electrical, instrumentation and electronics fields.
All the equipment for use in explosive atmosphere satisfy the requirements of international and national regulations (Atex, IECEx and Gost) and each individual systems' component is certified in accordance with specific Ex-certification requirements.

TECHNOR®'s product range and geographic locations nicely complement those of the MARECHAL ELECTRIC GROUP, providing significant product and distribution channel synergies.

LIGHTING FIXTURES
Fluorescent lighting//Wellglass//LED lighting//Floodlights

CONTROL STATIONS
Increased safety//Flameproof

JUNCTION BOXES
Increased safety//Flameproof

FLAMEPROOF ENCLOSURES & Ex-P CABINETS
Gas Group IIB + H_2//Gas Group IIC

EARTHING SYSTEMS

VISUAL SIGNALS

CABLE GLANDS & FITTINGS
Metallic//Plastic//Accessories//Fittings

PLUGS AND SOCKET-OUTLETS

MARECHAL ELECTRIC PRODUCTS
Explosion proof range//Industrial range

MARECHAL ELECTRIC GROUP

65 Years of expertise in the industrial electrical equipment

Founded in 1952, the MARECHAL ELECTRIC Group counts among the major players in Low Voltage LT electrical connection systems in industrial environments with or without the presence of an ATEX explosive atmosphere. With a consolidated turnover of nearly €100 million, its operational and/or sales subsidiaries in Europe, America, Asia, the Middle East, Africa and Australia, offer the best products and local services to the most demanding customers. A workforce of nearly 500 worldwide includes R&D, manufacturing and commercial development skills. The product range is intended for all sectors of industrial activity where safety and endurance are required.



→ INTERNATIONAL COVERAGE

The MARECHAL ELECTRIC Group has an international presence with its own sales forces in more than 20 countries and a strong network of global partners and distributors. Its production, assembly and sales subsidiaries allow MARECHAL® to maintain a close relationship with its customers in more than 100 countries.

10 subsidiaries at your service:

MARECHAL ELECTRIC S.A.S (Head office - France)

MELTRIC Corporation (USA)

MARECHAL ELECTRIC Africa (Pty) Limited (South Africa)

MARECHAL ELECTRIC Asia Pte Ltd (Asia)

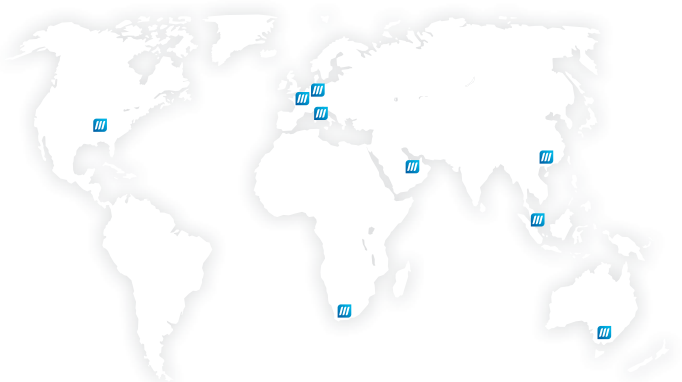
MARECHAL AUSTRALIA Pty Ltd (Australia)

TECHNOR Italsmea (Italy)

MARECHAL GmbH (Germany)

TECHNOR Middle East DMCC (Middle East).

MARECHAL CHINA



Our history

Since its creation in 1952, MARECHAL ELECTRIC is a French family business, independent, committed to its customers, its employees and its suppliers.

The company is specialized in the manufacture of low voltage electrical connectors from 5A to 700A, as well as electrical solutions for potentially explosive atmospheres through the TECHNOR® brand.

Our customers benefit from MARECHAL® products designed to ensure safety, durability, performance, ease of use and energy efficiency.

The company offers products under two complementary brands MARECHAL® and TECHNOR® with the same level of quality requirement worldwide. Committed to this approach, MARECHAL ELECTRIC has remained since 1952 an example of success, offering products of unrivalled quality, resulting from the research and development that make the reputation of the French electrical industry. The principles of MARECHAL ELECTRIC The principles of MARECHAL ELECTRIC stands also for collaboration based on trust, proximity with partners, suppliers, customers and employees.



Our research strategy revolves around 4 main approaches:

→ THE SAFETY AND RELIABILITY OF OUR PRODUCTS

Boasting of a unique level of know-how, MEG first and foremost prioritises the safety of the individuals in the facilities and during the use and maintenance of its equipments. Their design goes hand in hand with sustainability and performance over the long-term, irrelevant of the number of operations, outer environment or conditions of use.

→ OPTIMISING THE MODULAR DESIGN

MEG offers its customers the possibility of customising the functions and modular assembly options for its products. For large-scale projects, a dedicated Specific Equipments Technical Team is available to support the customer for their projects so as to offer a comprehensive solution.

→ ENRICHING PARTNERSHIP DEVELOPMENTS WITH ITS CUSTOMERS

MEG is present on turnkey markets and the close partnerships developed with all market actors enables us to grow and to continuously develop our product portfolio. We are therefore constantly improving the performances and functions of our products to exceed our customers' expectations.

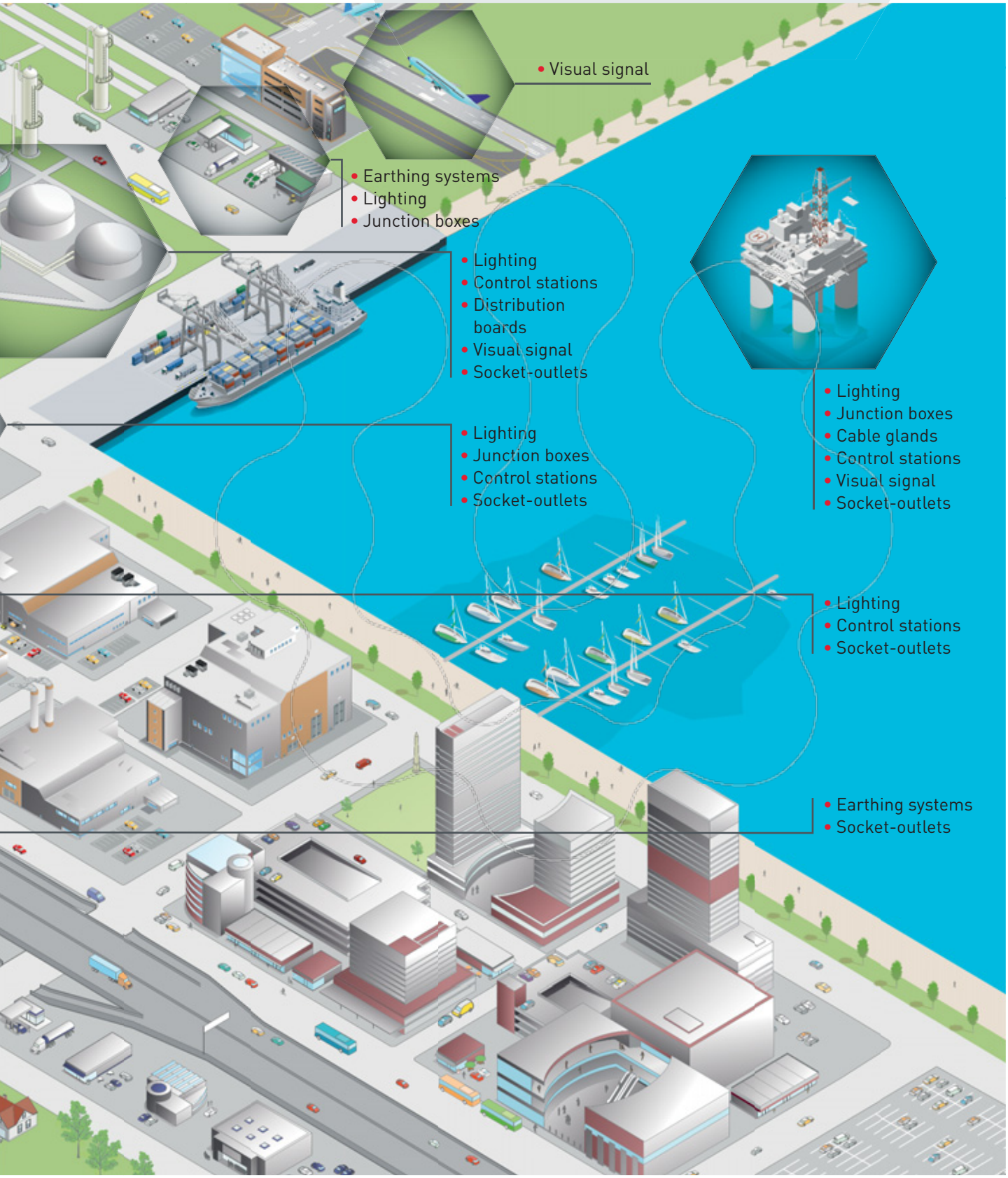
→ COMPLYING WITH INTERNATIONAL REGULATIONS

TECHNOR® APPLICATIONS FIELDS

Safety of people, equipment & infrastructure



in potentially explosive atmosphere



Ex REGULATIONS

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European ATEX Directive

→ EUROPEAN DIRECTIVE 2014/34/EU

ATEX Directive 2014/34/EU is a "new approach" directive that applies to protective systems against explosions as well as all equipment used in or related to explosive atmospheres, such as electrical and non-electrical equipment, components and safety, control and adjusting devices that are necessary for the safe operation of those equipment and protective systems. As a "new approach" directive, the 2014/34/EU Directive defines the essential requirements for the safety and health which shall be respected by all manufacturers. Devices falling within the scope of the European Directive and answering to the essential requirements for the safety and health are identified by a marking plate on which the Ex logo appears.

→ EUROPEAN DIRECTIVE 1999/92/EC

- The 1999/92/EC Directive aims to improve the safety and health protection of workers who may be exposed to potentially explosive atmospheres.
- The site manager has the obligation:
- to prevent the formation of explosive atmospheres or if this is not possible, prevent ignition of explosive atmospheres,
- to assess the specific risks arising from explosive atmospheres ; to draw up and keep up to date an explosion protection document,
- to classify places where explosive atmospheres may occur into zones,
- to mitigate the detrimental effects of an explosion to protect the health and safety of workers (install appropriate equipment, take organizational measures such as staff training, ...).

International scheme : IECEx

IECEx Scheme: A voluntary certification scheme complying with international standards for electrical and non-electrical equipment for use in explosive atmospheres.

Its aim is to facilitate the international flow of equipment intended to be used in potentially explosive atmospheres (in compliance with one or more international standards defining the type of protection against the risk of explosion) and thus avoiding multiple national certifications and at the same time ensuring an appropriate level of safety. The IECEx certification scheme allows the manufacturers of "Ex proof" equipment to obtain a Certificate of Conformity that would be accepted in Member States in which this certification scheme is recognized.

Hazardous areas

→ EXPLOSION

An explosion is a release of energy (mechanical, chemical...) in a sudden and often violent manner with high temperature and high pressure due to oxidation or another exothermic reaction.

→ EXPLOSIVE ATMOSPHERE

An explosive atmosphere is a result of the mixture with air, under atmospheric conditions, and flammable substances in the form of gas, vapor, dust, fibers or flyings which, after ignition, permits self-sustaining propagation.

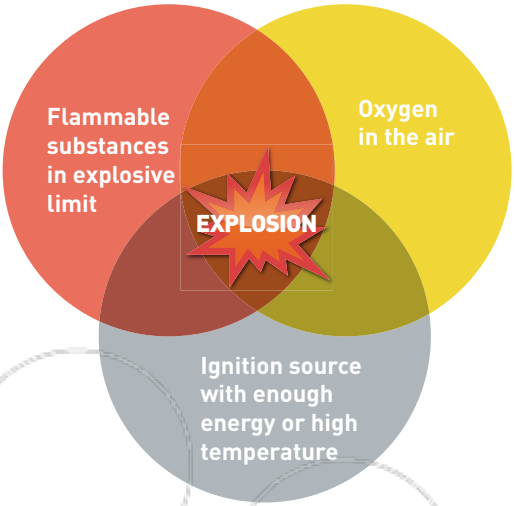
→ A POTENTIALLY EXPLOSIVE ATMOSPHERE

An atmosphere is defined as potentially explosive when its usual composition is not explosive, but due to unforeseen circumstances, it can vary to such an extent that it becomes explosive (the danger exists as a potential state). Main foreseeable circumstances are as follow:

- various stages of a manufacturing process,
- incidents or accidents (rupture of a pipe-line, leak, supply loss),
- meteorological conditions (high ambient temperature, air movements).

Ex REGULATIONS

CONDITIONS FOR EXPLOSION



AREAS CLASSIFICATION DEFINED BY DIRECTIVE 1999/92/EC

Probability of ATEX presence	Very High	High and Normal	Low
Definition	Location where an explosive atmosphere is present continuously or for a long period or frequently.	Location in which an explosive atmosphere occurs occasionally during normal operation.	Location where an explosive atmosphere is not liable to occur during normal operation or, if it does, is only short-lived (foreseeable abnormal operation).
Zoning for gas & vapours (1999/92/EC)	Zone 0	Zone 1	Zone 2
Zoning for dust & fiber (1999/92/EC)	Zone 20	Zone 21	Zone 22

ATEX/IECEX CLASSIFICATION

ATEX Category	IEC protection Level (EPL)	Zone of installation	Atmosphere
1G	Ga	0	GAS
2G	Gb	1	
3G	Gc	2	
1D	Da	20	DUST
2D	Db	21	
3D	Dc	22	
M1	Ma	MINING	COAL DUST METHANE
M2	Mb		

GAS AND VAPOURS EXPLOSION

In general, the substances, gases, liquids or vapors which can be at the origin of explosion are:

- heating gas,
- hydrocarbons,
- glue and adhesive solvents,
- varnishes and resins,
- manufacturing additives for pharmaceutical products, artificial dyes, aromas and perfumes,
- manufacturing agents for the following materials : plastics, rubbers, man-made textiles and chemical cleaning products,
- products used in the treatment and manufacturing of alcohols and derivatives...

DUST EXPLOSION

Organic and metallic products which create powder and dust form can also in certain conditions become active agents of an explosion.

These are powders and dust of:

- magnesium,
- aluminum,
- sulfur,
- cellulose,
- corn starch,
- epoxy resins,
- polystyrenes,
- dust of plastic,
- coal,
- wood,
- medics,
- sugar (icing sugar),
- flour...

GAS AND VAPOURS CLASSIFICATION AND TEMPERATURE CLASSIFICATION

Gases are divided into

- three groups by IEC/EN standards
- four groups by the CEC (Canadian Electrical Code) and the NEC (National Electrical Code - US) standards.

The groups defined in European, International and North American standards are fundamentally the same, as illustrated by the following table.

Gas group		Typical gas
En/IEC	North America	
IIC	A	Acetylene
IIC	B	Hydrogen
IIB	C	Ethylene, Ethyl ether, Cyclopropane, Butadene 1-3
IIA	D	Propane, Ethane, Butane, Heptane, Acetone, Ethyl Alcohol

IEC/EN defined a temperature classification for materials used in hazardous areas. CEC and NEC have also been modified to include a temperature classification.

Temperatures (°C)	Temperature Classification	
	For IEC/EN	For North America
450	T1	T1
300	T2	T2
280	T2	T2A
260	T2	T2B
230	T2	T2C
215	T2	T2D
200	T3	T3
180	T3	T3A
165	T3	T3B
160	T3	T3C
135	T4	T4
120	T4	T4A
100	T5	T5
85	T6	T6

Ex REGULATIONS

DUST CLASSIFICATION

IEC/EN defined a classification of dust:

Dust group	Definition		
	Dust type	Size	Resistivity
IIIA	combustible flyings	> 500 µm	-
IIIB	non-conductive dust	⩽ 500 µm	> 10^3 Ω.m
IIIC	conductive dust	⩽ 500 µm	⩽ 10^3 Ω.m

EXAMPLES OF FLAMMABLE SUBSTANCES

Gas/Vapors	Boiling temperature	Flash point	Self-ignition temperature	Ideal conditions for explosion LEL - UEL	Temperature class	Gas group
Formaldehyde (= Methanal)	-6°C	60°C	424°C	7% - 73%	T2	IIB
Ether	35°C	-45°C	175°C	1.7%-39.2%	T4	IIB
Aniline Oil	184°C	75°C	615°C	1.2%-11%	T1	IIA
Ethanol (= Ethyl alcohol)	78°C	12°C	400°C	3,1% – 19,0% @ 60°C 3.1 %- 27,7% @ 100°C	T2	IIB
Formic acid	101°C	42°C	525°C	18%-57%	T2	IIA
Acetic acid	118°C	39°C	510°C	4%19.9%	T1	IIA
Diethyl sulfate	208°C	104°C	360°C		T2	IIA
Methanol	65°C	9°C	440°C	6%-36% @ 60°C 6%-50% @ 100°C	T2	IIA
Isopropyl alcohol	83°C	12°C	399°C	2%-12.7%	T2	IIA
Acetone	56°C	<-20°C	539°C	2.5%-14.3% @100°C	T1	IIA
n propyl alcohol	97°C	15°C	385°C	2.1%-17.5%	T2	IIB
n butyl alcohol	118°C	35°C	343°C	1.4%-12%	T2	IIA
n amyl alcohol	138°C	42°C	320°C	1.06%-10.5%	T2	IIA
Benzene	80°C	-11°C	498°C	1.2%-8.6%	T1	IIA
Natural gas	-162°C	gas	600°C	4.4%-17%	T1	IIA
Ethane	-86°C	gas	515°C	2.4%-15.5%	T1	IIA
Ethylene	-104°C	gas	440°C	2.3%-36%	T2	IIB
Acetylene		gas	305°C	2.3%-100%	T2	IIC
Methyl chloride	-24°C	gas	625°C	7.6%-19%	T1	IIA
Methylamine	-6°C	gas	430°C	4.2%-20.7%	T2	IIA
Bromoethane	38°C		511°C	6.7%-11.3%	T1	IIA
Propane	-42°C	gas	450°C	1.7%-10.9%	T2	IIA
Vinyl Chloride	-14°C	gas	415°C	3.6%-33%	T2	IIA
Methyl cyanide	82°C	2°C	523°C	3%-16%	T1	IIA
Acetaldehyde	20°C	-38°C	155°C	4%-60%	T4	IIA
carbon disulphide	46°C	-30°C	90°C	0.6%-60%	T6	IIC
Cyclopropane	-33°C	gas	500°C	2.4%-10.4%	T1	IIA
ethylene oxide	20°C	gas	429°C	2.6%-100%	T2	IIB
Iso Butane	-12°C	gas	460°C	1.3%-9.8%	T1	IIA
Vinydene fluoride	-86°C	gas	380°C	3.9%-25.1%	T2	IIA
Nitromethane	101°C	35°C	414°C	7.3%-63%	T2	IIA
propylene oxide	34°C	-37°C	430°C	1.9%-37%	T2	IIB
Isobutanol	108°C	28°C	408°C	1.4%-11%	T2	IIA
Isobutanal	64°C	-22°C	165°C	1.6%-11%	T4	IIA
s-butyle chloride	68°C	-21°C	415°C	2%-8.8%	T2	IIA
Propylene dichlroide	96°C	15°C	557°C	3.4%-14.5%	T1	IIA
s-butyl alcohol	99°C	24°C	406°C	1.7%-9.8%	T2	IIA
Acrylic acid	141°C	55°C	406°C	2.4%-8%	T2	IIB

Gas/Vapors	Boiling temperature	Flash point	Self-ignition temperature	Ideal conditions for explosion LEL - UEL	Temperature class	Gas group
Nitroethane	114°C	27°C	412°C	3.4%	T2	IIB
Diisopropyl	58°C	<-20°C	396°C	1%	T2	IIA
Isobutyric acide	155°C	58°C	443°C	2%-10%	T2	IIA
Naphthalene	218°C	77°C	540°C	0.6% to150°C – 5.9%	T1	IIA
Methylcyclopentane	72°C	<-10°C	258°C	1%-8.4%	T3	IIA
Mirbane Oil	211°C	88°C	481°C	1.4%-40%	T1	IIA
Isopropyltoluene	177°C	47°C	436°C	0.7%-5.6%	T2	IIA
Styrene	145°C	30°C	490°C	1%-8%	T1	IIA
s-butac	112°C	-18°C	422°C	1.3%-7.5%	T2	
Diethyl carbonate	126°C	24°C	450°C	1.4%-11.7%	T2	IIB
Dichloride	174°C	66°C	648°C	2.2%-9.2%	T1	IIA
Oxirane (chloromethyl)	116°C	28°C	385°C	2.3%-34.4%	T2	IIB
Allyl glycidyl ether	154°C	45°C	249°C		T3	IIB
Bromo propyne	89°C	10°C	324°C	3%	T2	
Allyle chloride	45°C	-32°C	390°C	2.9%-11.2%	T2	IIA
Ethylene chloride	84°C	13°C	438°C	6.2%-16%	T2	IIA
Ethylene chlorohydrin	128°C	55°C	425°C	4.9%-16%	T2	IIA
Vinyl cianide, VCN	77°C	-5°C	480°C	2.8%-28%	T1	IIB
Allylic Alcohol	97°C	21°C	378°C	2.5%-18%	T2	IIB
Propargyl Alcohol	115°C	33°C	346°C	2.4%	T2	IIB
Chloromethoxyl methane	59°C	-8°C				IIA
Methylformate	32°C	-20°C	525°C	5%-23%	T2	IIA
Vinyl acetate	72°C	-7°C	385°C	2.6%-13.4%	T2	IIA
Iso acetone propyl	116°C	16°C	475°C	1.2%-8%	T1	IIA
Ether diisopropyle	69°C	-28°C	405°C	1%-21%	T2	IIA
iso-propyl acetate	90°C	1°C	425°C	1.7%-8.1%	T2	IIA
acetic anhydride	140°C	49°C	316°C	2%-10.3%	T2	IIA
methylcyclohexane	101°C	-4°C	250°C	1-6%.7%	T3	IIA
toluene	111°C	4°C	530°C	1-7%.8%	T1	IIA
Chlorobenzene	132°C	28°C	593°C	1,3%-11,0%	T1	IIA
Cyclohexylamine	134°C	27°C	275°C	1,1%-9,4%	T3	IIA
Cyclohexanol	161°C	61°C	300 °C	1,2%-11,1%	T3	IIA
Cyclohexanone	156°C	43°C	419°C	1,3%-9,4%	T2	IIA
Phenol	182°C	75°C	595°C	1,3%-9,5%	T1	IIA
n- propyl acetate acid	102°C	10°C	430°C	1.7%-8%	T2	IIA
n-Pentane	36°C	-40°C	243°C	1.1%-8.7%	T3	IIA
ethylene glycol monomethyl ether	104°C	39°C	285°C	1.8%-20.6%	T3	IIB
dimethoxymethane	43°C	-21°C	235°C	2.2%-19.9%	T3	IIB
diethamine	56°C	-23°C	312°C	1.7%-10.1%	T2	IIA
Formic acid ethyl ester	54°C	-20°C	440°C	2.7%-16.5%	T2	IIA
Ethyl ester of nitrous acid	17°C	-35°C	95°C	3%-50%	T6	IIA
Oxolan	64°C	-14°C	230°C	1.5%-12.4%	T3	IIB
Furane	32°C	<-20°C	390°C	2.3%-14.3%	T2	IIB
Tetrahydrothiophene	121°C	13°C	200°C	1.1%-12.3%	T4	IIA
divenylenesulfide	84°C	-9°C	395°C	1.5%-12.5%	T2	IIA
Formal butyl	103°C	6°C	206°C	1.4%-9.5%	T3	
Cyclohexane	81°C	-17°C	244°C	1%-8%	T3	IIA
Cyclohexene	83°C	-17°C	244°C	1.1%-8.3%	T3	IIA
Pyridine	116°C	18°C	482°C	1.7%-12.4%	T1	IIA
morpholins	129°C	33°C	275°C	1.4%-15.2%	T3	IIA
Diisobutylamine	139°C	26°C	256°C	0.8%-3.6%	T3	IIA
Azepane	135°C to 137°C	23°C	279°C		T3	IIA

Ex REGULATIONS

Gas/Vapors	Boiling temperature	Flash point	Self-ignition temperature	Ideal conditions for explosion LEL - UEL	Temperature class	Gas group
n- Octane	126°C	13°C	206°C	0.8%-6.5%	T3	IIA
Tetramethylene cyanide	295°C	93°C	550°C	1.7%-5%	T1	
Ethylene glycol monobutyl ether	171°C	61°C	238°C	1.1%-12.7%	T3	
Nonane (= nonyl hydride)	151°C	30°C	205°C	0.7%-5.6%	T3	IIA
Decyl Alcohol	230°C	82°C	288°C	0.7%-5.5%	T3	
Dihéxyl ether	227°C	75°C	187°C		T4	IIA
Propene	-48°C	Gas	455°C	2-11.1%	T1	IIA
Wood Ether	-25°C	Gas	240°C	2.7-32%	T3	IIB
Isobutylene	-7°C	Gas	483°C	1.6-10%	T1	IIA
tetrafluoroethylene	-76°C	Gas	255°C	10-59%	T3	IIB
triethylamine	89°C	-8°C	215°C	1.2-8%	T3	IIA
diacetone	166°C	58°C	680°C	1.8-6.9%	T1	IIA
Isoamyl Alcohol	131°C	42°C	339°C	1.3-10.5%	T2	IIA
acetylacetone	140°C	34°C	340°C	1.7%	T2	IIA
n butylester acetic acid	127°C	22°C	390°C	1.2%-8.5%	T2	IIA
Octanal	171°C	52°C	200°C		T4	IIA
Dimethylamine	7°C	Gas	400°C	2.8%-14.4%	T2	IIA
Chloroprene	60°C	-29°C	320°C	1.9%-20%	T2	
Ethyl esters of acrylic acid	100°C	9°C	350°C	1.4%-14%	T2	IIB
aminoethane-2	172°C	85°C	410°C		T2	IIA
Ethyl esters of acetic acid	77°C	-4°C	470°C	2%-12.8%	T1	IIA
Ether dibutyl	141°C	25°C	175°C	0.9%-8.5%	T4	IIB
Cyclobutane	13°C	Gas		1.8%		IIA
Cyclopentane	49°C	-37°C	320°C	1.4%	T2	IIA
Cycloheptane	119°C	6°C		1.1%-6.7%		IIA
Piperylene	41°C	<-31°C	361°C	1.2%-9.4%	T2	IIA
Amylene	38°C	-53°C	290°C	1.3%-6.6%	T3	IIA
phenylacetylene	142°C	41°C	420°C		T2	IIB
iso-Octane	99°C	-12°C	413°C	0.7%-6%	T2	IIA
Acetyl fluoride	21°C	<-17°C	434°C	5.6%-19.9%	T2	IIA
carbon monoxide (in 18% water vapor-saturated air)		Gas	607°C	10.9%-74%	T1	IIB
Acetyl ketene	127°C	33°C	262°C		T3	IIB
acryloyl chloride	74°C	-8°C	463°C	2.68%-18%	T1	IIA
Decene 1	172°C	47°C	235°C	0.55%-5.7%	T3	
xylidene (isomers mixture)		90°C to 98°C	500°C to 545°C	1%-7%	T1	
Cresol (isomers mixture)		81°C	557°C	1.1%	T1	IIA
Hydrogen	-253°C	Gas	560°C	4%-77%	T1	IIC
Ester isopropyl of nitric acid	101°C	11°C	175°C	2.0%-100%	T4	IIB
anhydrous ammonia	-33°C	Gas	630°C	15%-33.6%	T1	IIA
hydrogen sulphide	-60°C	Gas	260°C	4%-45.5%	T3	IIB
Petrol (= Fuel)		-46°C	280°C	1.4%-7.6%	T3	
Turpentine oil	154°C to 170°C	35°C	253°C	0.8%	T3	IIA
Kerosene (= Gas oil No. 1) (= Oil No. 1)		38°C to 72°C	210°C	0.7%-5%	T3	IIA
Phenol hexahydroxymethyl	155°C to 180°C	68°C	295°C		T3	IIA
paraformaldehyde		70°C	380°C	7%-73%	T2	IIB
Diesel No. 2 (= Gas oil No. 2) (= Oil No. 2)		52°C to 96°C	254°C to 285°C	0.6%-6.5%	T3	
crude gas		Gas				IIB or IIC
Oil -6		66°C to 132°C				

How chose the equipment?

→ GAS/VAPOR

Gas/vapor Subdivision	Equipment groups (according type of protection) which can be used		
	Increased safety “e”	Flameproof enclosure “d”	Associated type of protection “d” + “e”
A	IIA-IIB-IIC	IIA-IIB-IIC	IIA-IIB-IIC
B	IIB-IIC	IIB-IIC	IIB-IIC
C	IIC	IIC	IIC

→ TEMPERATURE CLASSES

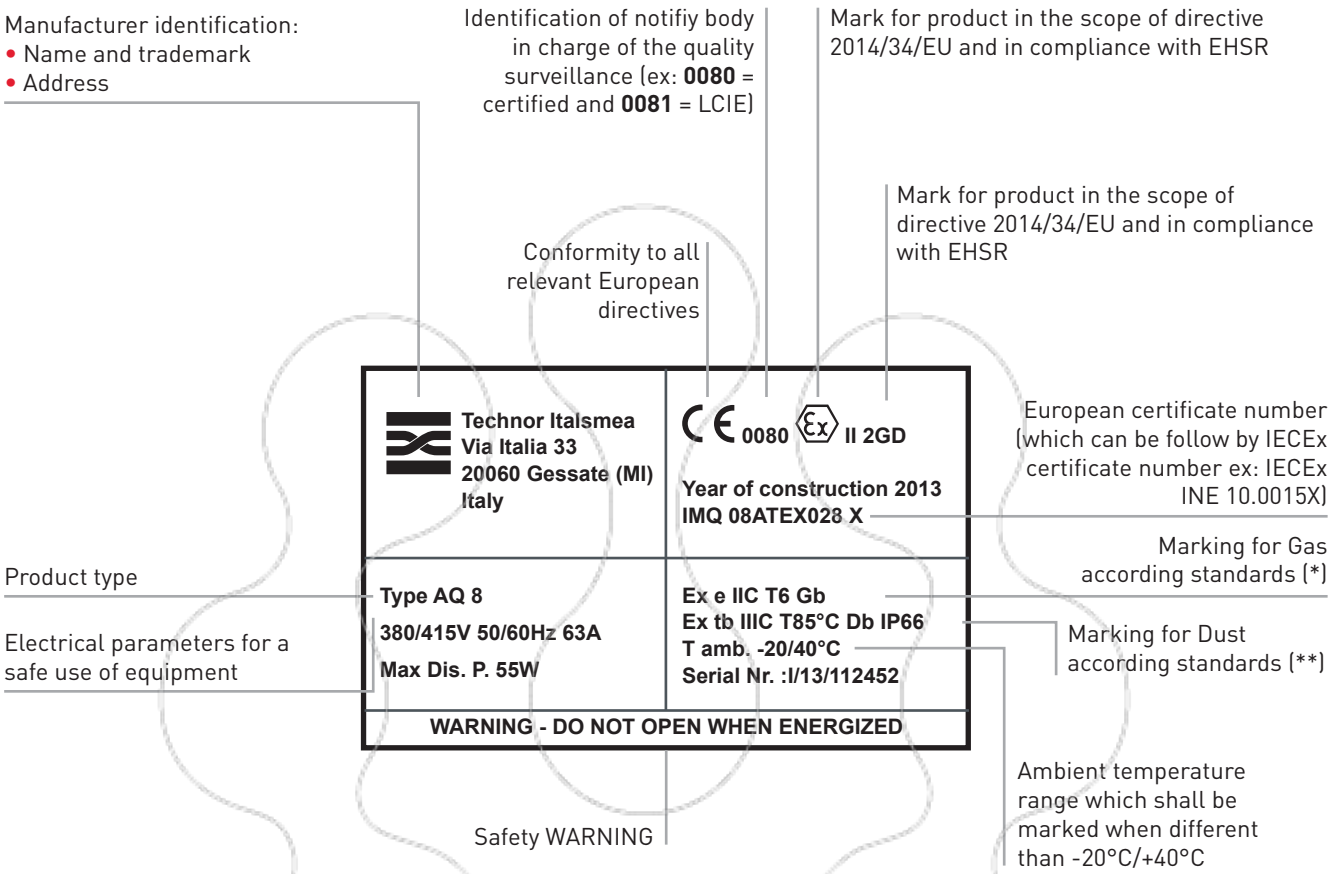
Self ignition temperature of the gases/vapors	T6	T5	T4	T3	T2	T1
85°C ⩽ Temp ⩽ 100°C						
100°C < Temp ⩽ 135°C						
135°C < Temp ⩽ 200°C						
200°C < Temp ⩽ 300°C						
300°C < Temp ⩽ 450°C						
450°C < Temp						



Equipment must never be used in an atmosphere capable of ignition at the temperature indicated on the marking (temperature class).

Application area	IIA																						IIB			IIC			Conclusion fo the site	Self-ignition temp + gas group + temp class
	Acetone	Industrial methane	Ethyl acetate	Methanol	Butane	Propane	Hexane	Ammoniac	Carbon monoxide	Pentane	Heptane	Iso-octane	Decane	Benzene	Xylene	Cyclohexane	Butanone	Methyl acetate	n-propyl acetate	n-butyl acetate	Amyl acetate	Butanol	Ethyle nitrate	Ethylene	Butadene 1.3	Ethylene oxide	Hydrogen	Carbon disulphide	Acetylene		
	539 °C T1	600 °C T1	470 °C T2	440 °C T2	372 °C T2	450 °C T2	225 °C T3	630 °C T1	607 °C T1	243°C T3	204 °C T3	413°C T2	235 °C T3	498 °C T1	470 °C T1	244 °C T3	404 °C T2	505 °C T1	450 °C T2	422°C T2	360 °C T2	343 °C T2	90 °C T6	423 °C T2	420 °C T2	429 °C T2	560 °C T1	90 °C T6	305 °C T2		
Cleaning product industry	•		•											•	•	•	•	•						•							244°C – T3 – IIB
Pharmaceutical industry		•	•	•															•	•			•				•				90°C – T6 – IIC
Dye industry		•		•										•	•		•	•													404°C – T2 – IIA
Artificial rubber industry		•	•											•						•				•	•				•		305°C – T2 – IIC
Perfumery	•		•	•										•	•						•										360°C – T2 – IIA
Spirits 375				•																	•										360°C – T2 – IIA
Artificial fruit flavourings			•																		•		•								90°C – T6 – IIA
Artificial textile manufacture			•						•					•		•								•		•		•	•		90°C – T6 – IIC
Paint manufacture	•		•											•			•	•		•	•	•				•					343 – T2 – IIB
Varnish manufacture	•		•											•			•	•		•	•	•				•					343 – T2 – IIB
Grease solvent	•							•						•																	498°C – T1 – IIA
Resin solvent	•			•													•	•				•									343°C – T2 – IIA
Plastic manufacture	•	•																		•		•		•			•			•	305°C – T2 – IIC
Hydrocarbons		•			•	•	•			•	•	•	•	•	•	•												•			90°C – T6 – IIC
Gas used as a fuel		•		•	•	•																					•			•	305°C - T2 – IIC
Fertiliser manufacture								•																			•				560°C – T1 – IIC

Explanation of marking

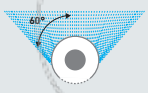
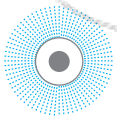
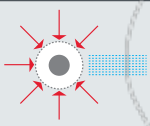
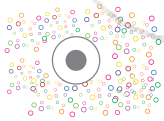
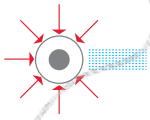
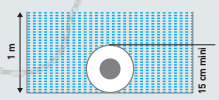
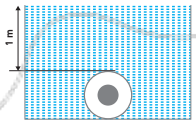
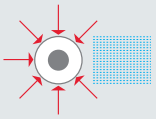


* : Gas details	** : Dust details
Ex: Electrical apparatus intended to be installed in hazardous location **e**: type of protection (e = increased safety) **IIC**: Gas group/Subdivision C **T6**: temperature class **Gb**: Equipment protection level b (use in zone 1 and 2)	**Ex**: Electrical apparatus intended to be installed in hazardous location **tb**: type of protection (tb = protection by enclosure) **IIIC**: Dust group/Subdivision C **T85°C**: Maximum surface temperature **Db**: Equipment protection level b (use in zone 21 and 22) **IP66**: degree of protection provided by the enclosure

EHSR : Essential Health and Safety Requirements

IP table (IEC/EN 60529)

Protection against ingress of solid foreign objects and against harmful effects due to the ingress of water.

1st digit : protection against ingress of solid objects			2nd digit: protection against the ingress of water		
IP	**Explanation**		**IP**	**Explanation**	
0	No protection		**0**	No protection	
1		Protected against solid bodies larger than 50 mm (e.g. accidental contact with the hand)	**1**		Protected against vertically-falling drops of water (condensation)
2		Protected against solid bodies larger than 12.5 mm (e.g. finger of the hand)	**2**		Protected against drops of water falling at up to 15° from the vertical
3		Protected against solid bodies larger than 2.5 mm (tools, wires)	**3**		Protected against drops of rainwater at up to 60° from the vertical
4		Protection against solid bodies larger than 1mm (fine tools, small wires)	**4**		Protected against projections of water from all directions
5		Protected against dust (no harmful deposit)	**5**		Protected against jets of water from all directions
6		Completely protected	**6**		Completely protected against jets of water of similar force to heavy seas
			7		Protected against the effects of temporary immersion
			8		Protected against effects of prolonged immersion under specified conditions
			9k		Protected against jets of water from all directions with significantly increased pressure (vapors)

IK table (IEC/EN 62262)

Protection provided by enclosures for electrical equipment against external mechanical impacts.

Code	IK 00	IK 01	IK 02	IK 03	IK 04	IK 05	IK 06	IK 07	IK 08	IK 09	IK 10
Shocks energy (in Joules)	0	0,15	0,20	0,35	0,50	0,70	1	2	5	10	20
Corresponds to	0 g	200 g	200 g	200 g	200 g	200 g	500 g	500 g	1700 g	5 Kg	5 Kg
Dropped to	0 cm	2,5 cm	10 cm	17,5 cm	25 cm	35 cm	20 cm	40 cm	29,5 cm	20 cm	40 cm

Presentation of most common types of protection

→ FLAMEPROOF « Ex d » EQUIPMENT

A flameproof equipment offers an enclosure in which the parts which can ignite an explosive gas atmosphere can be placed. It withstands the pressure developed during an internal explosion of an explosive mixture, and prevents the transmission of the explosion to the explosive gas atmosphere surrounding the enclosure.

A flameproof enclosure must meet three criteria:

- Contain an internal explosion without permanent distortions.
- Guarantee that the explosion cannot be transmitted to the surrounding atmosphere.
- Have a temperature at any points on the surface that is lower than the self ignition temperature of the surrounding gases or vapours.

There are two construction values which are essential for a flameproff equipment to answer to the 3 criteria:

- the length of flameproof gasket (L)
- the gap (i)

These values depend on gas group and the maximum allowed gap depends on the length of flameproof gasket.

It is necessary to lubricate the thread and to ensure that at least 5 threads are engaged for metric thread and that 5 threads are present on each parts for NPT threads.

Holes which are not used for cable entries must be blanked using the appropriate blanking plugs.

The equipment is supplied with the lubricated gasket. When the equipment is installed, the flamespaths must be lubricated to keep it in good condition. Use a non-hardening, anti-corrosive grease (see technical note).

In order to successfully retain the flameproof character of the equipment:

- Care must be taken before starting up to ensure that all the screws for closing the covers and cable entries are firmly tightened and that the blocking device is well screwed, if necessary.
- Modification of the original predrilled holes is prohibited.

→ INCREASED SAFETY « Ex e » EQUIPMENT

Method of protection applicable to electrical equipment such as light fittings, sockets, switches, etc, which consists of preventing the occurrence of any accidental ignition.

The construction principles for increased safety « e » equipment are as follows:

- Use of high-quality insulation materials
- Specially dimensioned clearance and creepage distance
- Electrical connection which cannot become loose
- Minimum IP54 weatherproof protection of the enclosure
- Respect of the temperature classes
- Conformity of cable entries
- Labelling.

These principles are respected by screwing the cable gland directly onto the enclosure or, for untapped holes, by fixing with a locknut. Holes which are not used for cable entries must be blanked using the appropriate blanking plugs.

The equipment has a protection level of at least IP 54; it is therefore important to ensure that the sealing gasket is in good condition when the product is installed.

Defective seals must be systematically replaced.

It is important to be sure that the gasket is properly positioned for the plugs and sockets and for all the luminaries before connecting the male and female parts (for plugs and sockets) and before closing the light transmitting part of the lighting fixture.

For the connection, all technical note or instruction sheet shall be followed.

→ PRODUCTS MARKED « Ex de »

Except «Ex d» enclosure, equipment having a combined protection type « d » and « e » are the most commonly used. Some apparatuses such as power sockets, lampholders, etc, which create arcs and sparks in normal operation, can't be designed only with protection mode « e ».

- The part where the electric arc is produced is enclosed in a small flameproof chamber.
- The connection terminals are « e » increased safety.
- The assembly is mounted in an « e » increased safety enclosure.

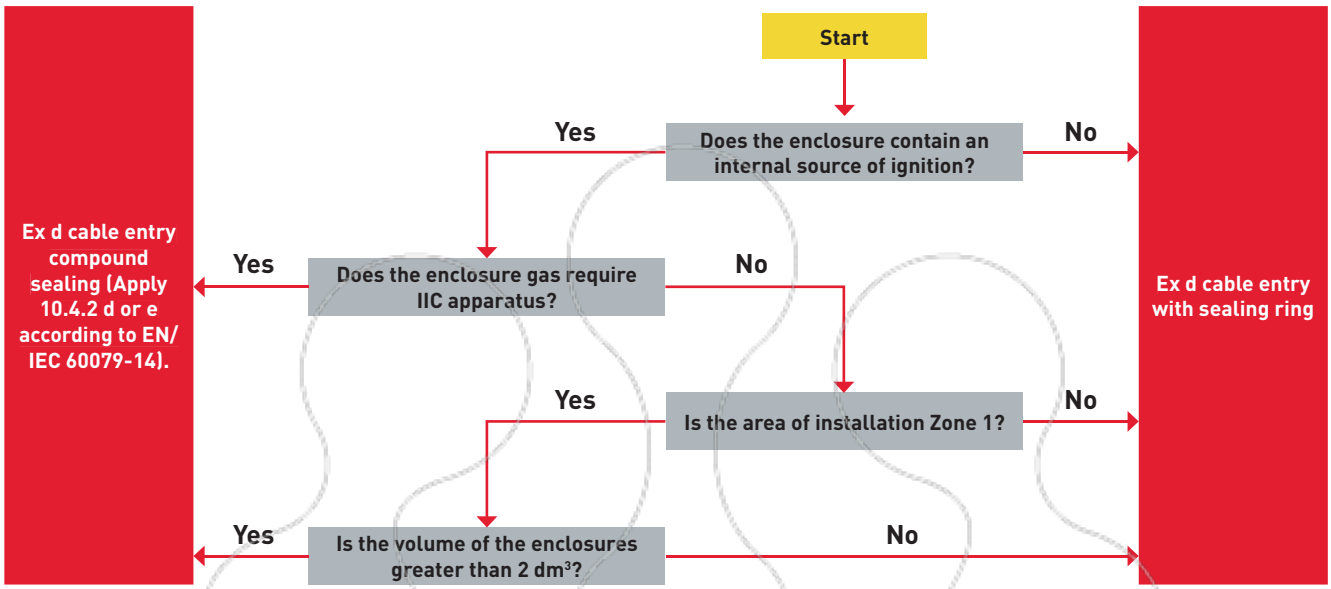
Cables entries

The connection of cables to the electrical equipment shall maintain the explosion protection integrity of the relevant type of protection. When the cable gland certificate has an 'X' marking, this cable gland shall only be used for fixed installations. When the equipment is only portable, cable glands without 'X' marking shall be used.

Cable Entries into Ex d Enclosures

Two situations can be considered, direct cable entry (Ex d enclosures) and indirect cable entry (Ex d e enclosures - on Ex e part).

For the direct cable entry, to choose the correct cable gland the scheme shall be followed if it is not tested with the equipment.



Installation recommendation

GENERAL REQUIREMENTS

Electrical installations for explosive atmosphere must comply with the requirements concerning installations in both non hazardous and hazardous locations:

- national rules (Example NFC 15-100 + condition BE3 for France),
- EN/IEC 60079-14,
- IEC/EN 60079-17.

EQUIPMENT SELECTION (EXCEPT CABLE ENTRIES)

Zones	Type of protection		Marking	EN/IEC standard
-	General requirements		-	60079-0
For use in Zones 1, 2	Flameproof enclosure		**Ex d**	60079-1
For use in Zones 1, 2	Increased safety		**Ex e**	60079-7
For use in Zones 0, 1, 2, 20, 21, 22	Intrinsic safety		**Ex i**	60079-11
For use in Zones 1, 2	Pressurisation		**Ex p**	60079-2
For use in Zones 0, 1, 2, 20, 21, 22	Encapsulation		**Ex m**	60079-18
For use in Zones 1, 2	Oil immersion		**Ex o**	60079-6
For use in Zones 1, 2	Powder filling		**Ex q**	60079-5
For use in Zone 2	"Non sparking"		**Ex n**	60079-15
For use in Zones 20, 21, 22	Dust atmospheres		**Ex t**	60079-31

Ex REGULATIONS

EXTERNAL INFLUENCES

The material must be selected and installed so that it is protected against external, chemical, mechanical, thermal and electrical influences, vibrations, humidity, etc., which are likely to counteract the protection modes provided.

PROTECTION AGAINST DANGEROUS SPARKS

Limitation of earth fault currents. It is difficult to cover all systems, but the methods presented in EN/IEC 60079-14 represent general cases.
These systems can be used in Zones 1 and 2 up to 1 000 V~/1 500 V. (Low voltage equipment).
Nota: the equipment intended to be used in explosive atmosphere are not in the scope of LVD 2006/95/EC dated 12/12/2006.

EQUALIZATION OF POTENTIALS

All exposed conductive parts and all extraneous metallic parts must be connected to the equipotential connection system.
The connection system may comprise protective conductors, metal pipes in metal cable ducts and metallic structural elements, but must not include the neutral conductor.
It must be impossible for connections to come loose by themselves.

CABLES

Cables and accessories should be installed such that they are not exposed to mechanical damage, vibration and corrosive or chemical influences, for example due to solvents, and the effects of heat.
When this type of exposure is inevitable, protective measures must be taken to install or to select appropriate cables (using reinforced cables with shielding inside a seamless aluminum conduit, cables with a mineral insulation casing, a semi-rigid metal casing ...).

CABLE JOINTING

Whenever possible, complete cable lengths shall be installed in hazardous locations. Where this is impossible, a cable joint must be made to the mechanical, electrical or chemical constraints; it must also be enclosed in an enclosure in which the protection mode is appropriate for the Zone like junction boxes (AQR, EJB, GUB,...).

ADDITIONAL REQUIREMENTS FOR TYPE OF PROTECTION 'd' – FLAMEPROOF ENCLOSURES

Solid obstacles

When installing equipment, care shall be exercised to prevent the flameproof flange joint approaching nearer than the distance specified in table below to any solid obstacle which is not part of the equipment, such as steelwork, walls, weather guards, mounting brackets, pipes or other electrical equipment.

Minimum distance of obstruction from the flameproof flange joints related to the gas group of the hazardous area	
Gas group	**Minimum distance (mm)**
IIA	10
IIB	30
IIC	40

Protection of flameproof joints

Flameproof joints shall be protected against corrosion. Flameproof joints shall not be painted. (WARNING: Painting of the enclosure after complete assembly is permitted. The application of grease to the flameproof joint faces will reduce, but not eliminate, the quantity of paint penetrating the gap (Silicone based greases are often suitable for this purpose) – see § ELECTRICAL INSTALLATIONS INSPECTION AND MAINTENANCE).

Cable glands shall:

- be appropriate to the type of cable employed,
- maintain the type of protection,
- be in accordance with § CABLE GLANDS.

Thread engagement shall be at least five full threads (5 threads engaged for metric threaded, 3.5 threads engaged for NPT). Suitable grease may be used provided it is non setting, non-metallic and non-combustible and any earthing between the two is maintained.
Where the threaded entry or hole size is different to that of the cable gland, a flameproof threaded adapter complying with IEC 60079-1 shall be fitted which complies with thread engagement requirements detailed above.
Only one adapter is authorized.
Unused cable entries shall be sealed with a flameproof blanking element complying with IEC 60079-1.

Conduit systems

Conduit sealing devices shall be provided, either as part of the flameproof enclosure or immediately or as close as practical to the entry to the flameproof enclosure using a minimum number of fittings.
Conduit sealing devices, having parallel threads may be fitted with a sealing washer between the device and the flameproof enclosure providing that after the washer has been fitted, the applicable thread engagement is still achieved. Thread engagement shall be at least five full threads. (5 threads engaged for metric threaded, 3.5 threads engaged for NPT). Suitable grease may be used provided it is non-setting and any earthing between the two is maintained.

→ ADDITIONAL REQUIREMENTS FOR TYPE OF PROTECTION 'e' – INCREASED SAFETY

Enclosures containing bare live parts shall have a degree of ingress protection of at least IP54, whereas enclosures containing insulated parts shall only have a degree of ingress protection of at least IP44.
The connection of cables to increased safety equipment shall be effected by means of cable glands appropriate to the type of cable used. Cable entries shall also respect « e » protection mode and must incorporate an appropriate sealing element in order to obtain a minimum degree of protection at least equal to IP54 at the enclosure connection.
Some terminals (e.g. slot types) may permit the entry of more than one conductor. Where more than one conductor is connected to the same terminal, care shall be taken to ensure that each conductor is adequately clamped.
Unless authorized by the documentation supplied with the equipment, two conductors with different diameters must not be connected to the same terminal, unless they have firstly been fixed by means of a single compression sleeve.
To avoid the risk of short-circuits between adjacent conductors in terminal blocks, the insulation of each conductor shall be maintained up to the metal of the terminal.
Combination of terminals and conductors in connection boxes and junction boxes: Care shall be taken to ensure that the heat dissipated within the enclosure does not result in temperatures in excess of the required equipment temperature class. This can be achieved by:

- a) following the guidance technical note given relating to the permissible number of terminals, the conductor size and the maximum current, or
- b) contacting us.

→ ADDITIONAL REQUIREMENTS FOR TYPES OF PROTECTION 'i' – INTRINSIC SAFETY AND 'nL' TYPE OF PROTECTION – ENERGY-LIMITED CIRCUITS

The aim of the installation rules for intrinsically safe circuits is to maintain separation from other circuits.

Requirements of EPL 'Gb' or 'Gc'

In installations to meet the requirements of EPL 'Gb', the intrinsically safe apparatus and the intrinsically safe parts of associated apparatus shall comply at least to level of protection 'ib'.
In installations to meet the requirements of EPL 'Gc', the intrinsically safe apparatus and the intrinsically safe parts of associated apparatus shall comply at least to level of protection 'ic'.
Simple apparatus need not be marked, but shall comply with the requirements of IEC 60079-0 and IEC 60079-11, in so far as intrinsic safety is dependent on them. No certification is required for a simple apparatus.
Associated apparatus should preferably be located outside the hazardous area or, if installed inside a hazardous area, shall be provided with another appropriate type of protection in like inside a EJB enclosures.
All apparatus forming part of an intrinsically safe system should, where reasonably practicable, be identifiable as being part of an intrinsically safe system. If sheaths or coverings are marked by a colour, the colour used for cables containing intrinsically safe circuits shall be light blue. Where intrinsically safe circuits have been identified by the use of light blue covered cable, then light blue covered cable shall not be used for other purposes in a manner or location which could lead to confusion or detract from the effectiveness of the identification of intrinsically safe circuits.If all intrinsically safe circuit cables or all cables of circuits which are not intrinsically safe are armoured,

metal sheathed or screened, then marking of intrinsically safe circuit cables is not required.
Alternative marking measures shall be taken inside control cabinets:

- combining the cores in a common light blue harness,
- labelling,
- clear arrangement and spatial separation.

The installation shall ensure that intrinsically safe circuit cables cannot be inadvertently connected to circuit cables which are not intrinsically safe. This may be achieved by:

- a) separating the different types of circuit cables, or
- b) placing the cables so as to protect against the risk of mechanical damage, or
- c) using cables which are armoured, metal sheathed or screened for specific types of circuits (e.g. all circuits which are not intrinsically safe are run in armoured cable or all intrinsically safe circuits are armoured).

Terminals for intrinsically safe circuits shall be separated from terminals of circuits which are not intrinsically safe:

- a) When separation is accomplished by distance, then the clearance between terminals shall be at least 50 mm,
- b) When separation is accomplished by use of an insulating partition or earthed metal partition, the partitions used shall extend to within 1,5 mm of the walls of the enclosure, or alternatively provide a minimum measurement of 50 mm between the terminals when taken in any direction around the partition.

The minimum clearances between the bare conducting parts of external conductors connected to terminals and earthed metal or other conducting parts shall be 3 mm.
The clearance between the bare conducting parts of field wiring terminals of separate intrinsically safe circuits shall be such that there is at least 6 mm between the bare conducting parts of connected external conductors.
The terminals of the intrinsically safe circuits shall be marked as such. This marking may be by the use of colour, in which case it shall be light blue.

Electrical installations inspection and maintenance

Standard EN/IEC 60079-17 covers factors directly related to the inspection and maintenance of electrical installations within hazardous areas only, where the hazard may be caused by flammable gases, vapours, mists, dusts, fibers or flyings. This standard stipulates that the inspection and maintenance of installations shall be carried out only by experienced personnel, whose training has included instruction on the various types of protection and installation practices, the requirements of this standard, the relevant national regulations/company rules applicable to the installation and on the general principles of area classification.
Three inspections are normally requested:

- initial inspection before plant or equipment is brought into service,
- regular inspections in time,
- inspection following any adjustment, maintenance, repair, reclamation, modification or replacement.

Frequency of inspection

The determination of the time interval between inspections shall be taken into account the process and the factors effecting the deterioration of equipment (susceptibility to corrosion, exposure to chemicals or solvents, likelihood of accumulation of dust or dirt, likelihood of water ingress, exposure to excessive ambient temperature, risk of mechanical damage, exposure to undue vibration, training and experience of personnel, likelihood of unauthorized modifications or adjustments and likelihood of inappropriate maintenance, for example that which is not in accordance with the manufacturer's recommendation).
But the interval between periodic inspections shall not exceed three years without seeking expert advice.

Degree of inspection

- Visual inspection: faults directly visible such as missing buttons or missing gasket, not well screw cable entries,...
- Close inspection: visual inspection and in addition detection faults (Close inspection does not normally require the enclosure to be opened, nor the equipment switched off).
- Detailed inspection: such as loose connections, detected after opening the enclosure.

SPECIFIC REQUIREMENTS

"Ex d" equipment:

It is preferable to obtain new parts from the manufacturer. Particular attention shall be paid to the correct assembly of flameproof enclosures after repair or overhaul, in order to ensure that the flameproof joints comply with the requirements of the standard. The flameproof enclosure are not gasketed thus they may be **protected by the use of grease, non-setting sealing compound or non-hardening tape** applied externally in accordance with IEC 60079-14.**The drilling of holes into a flameproof enclosure is forbidden.** No re-cement or repair light-transmitting parts shall be made and only complete replacement assemblies, as specified by the manufacturer, shall be used. **No modification affecting the explosion protection shall be carried out on parts of a flameproof enclosure.**

"Ex n" or "Ex e" equipment:

Care shall be taken when refurbishing terminations to maintain clearance and creepage distances. Any replacement terminals, bushings or parts should be obtained from us or shall conform to the relevant certification documents only for the enclosure. It is preferable to obtain new parts from the manufacturer to guarantee the preservation of the degree of ingress protection and temperature classification as stipulated on the certification label.

All equipment:

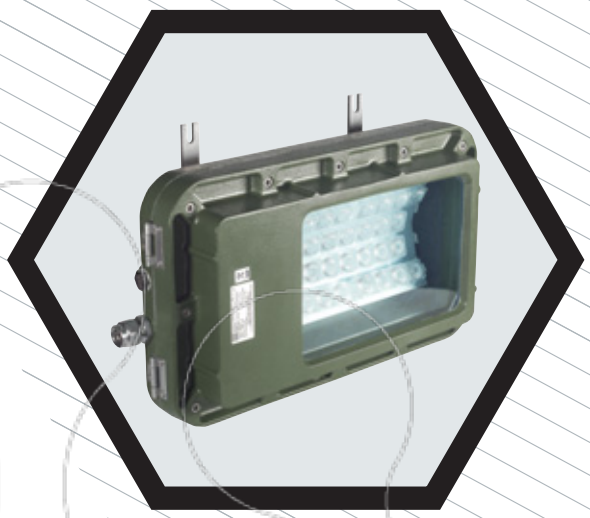
For equipment with a gasket, replacements shall be of the same materials and dimensions as the original. Any proposed change of material shall be referred to the equipment manufacturer, user or certification authority. For luminaries: Light-transmitting or other parts made from plastics shall not be cleaned with solvents. Household detergents are recommended for this purpose. The maximum wattage of lamps specified shall not be exceeded. Care shall be taken when changing surface finish, paint, etc., as this may affect the surface temperature of the enclosure and thus the temperature classification. Care shall be taken to ensure that the specified type of protection and degree of ingress protection are maintained.

INSPECTION PROGRAM

Check that	Ex d	Ex e	Ex n	Ex t
EQUIPMENT				
Equipment is appropriate to the EPL/Zone requirements of the location	•	•	•	•
Apparatus group is correct	•	•	•	•
IP grade of equipment is appropriate to conductivity of dust				•
Equipment temperature class is correct	•	•	•	
Equipment maximum surface temperature is correct				•
Equipment circuit identification is correct	•	•	•	•
Equipment circuit identification is available		•	•	•
Enclosure, glass parts and glass-to-metal sealing gaskets and/or compounds are satisfactory	•	•	•	•
There are no unauthorized modifications	•	•	•	•
There are no visible unauthorized modifications	•	•	•	•
Bolts, cable entry devices (direct and indirect) and blanking elements are of the correct type and are complete and tight	•	•	•	•
Flange faces are clean and undamaged and gaskets, if any, are satisfactory	•			
Lamp rating, type and position are correct	•	•	•	•
Breathing and draining devices are satisfactory	•	•	•	
INSTALLATION				
The installation is such as to minimize the risk of dust accumulations				•
Type of cable is appropriate	•	•	•	•
There is no obvious damage to cables	•	•	•	•
Sealing of trunking, ducts, pipes and/or conduits is satisfactory	•	•	•	•
Stopping boxes and cable boxes are correctly filled	•	•	•	•
Earthing connections, including any supplementary earthing bonding connections are satisfactory (for example connections are tight and conductors are of sufficient cross-section)	•	•	•	•
Insulation resistance is satisfactory	•	•	•	•
Specific conditions of use (if applicable) are complied with	•	•	•	•
Obstructions adjacent to flameproof flanged joints are in accordance with IEC 60079-14	•			
Variable voltage/frequency installation in accordance with documentation	•	•	•	•
Cables not in use are correctly terminated		•	•	•
ENVIRONMENT				
Equipment is adequately protected against corrosion, weather, vibration and other adverse factors	•	•	•	•
No undue accumulation of dust and dirt	•	•	•	•
Electrical insulation is clean and dry	•	•	•	



LIGHTING



P.26
Fluorescent lighting

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- Spares & Accessories 28
- EVF-F.. Series - Zones 1, 2, 21 & 22, end-cups in GRP 30
- RMS-560.. Series - Zones 1, 2, 21 & 22 - Stainless steel AISI 304..... 34
- RMS-550.. Series - Zones 2 & 22 - Stainless steel AISI 304..... 36
- RMS-540.. Series - Safe area - Stainless steel AISI 304..... 38
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P.46
Wellglass

- EV.. Series - H.I.D. well glass lighting fixture 46
- EV.. Series Lighting fixtures for fluorescent compact/halogen lamps - Copper free aluminium..... 50
- EV.. Series - Hand lamps for incandescent lamps - Copper free aluminium..... 54
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P.60
LED lighting

- EV LED.. Series - Spotlight - Copper free aluminium.....60
- EVCC-PR LED Series - Tank lighting fixtures - Copper free aluminium.....62
- FL-LED.. Series - Floodlight - Copper free aluminium.....64
- G2X LED Series - Zones 2 & 22.....68
- EVF-P LED.. Series - Zones 1, 2, 21 & 22 - End-cups in Copper free aluminium 70
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- RMS-560 LED.. Series - Zones 1, 2, 21 & 22 - Stainless steel AISI 304.....76

P.78
Floodlights

- FL.. Series - Copper free aluminium or Stainless steel AISI 316 L 78
- Spares & Accessories 80

P.80
Lamps/spare parts

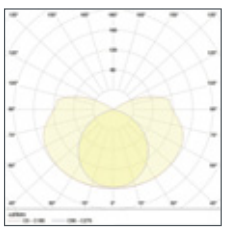
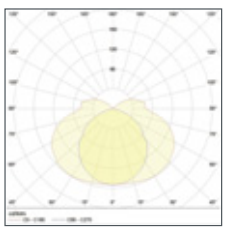
FLUORESCENT LIGHTING

EVF-P.. Series - Zones 1, 2, 21 & 22 - End-cups in Copper free aluminium

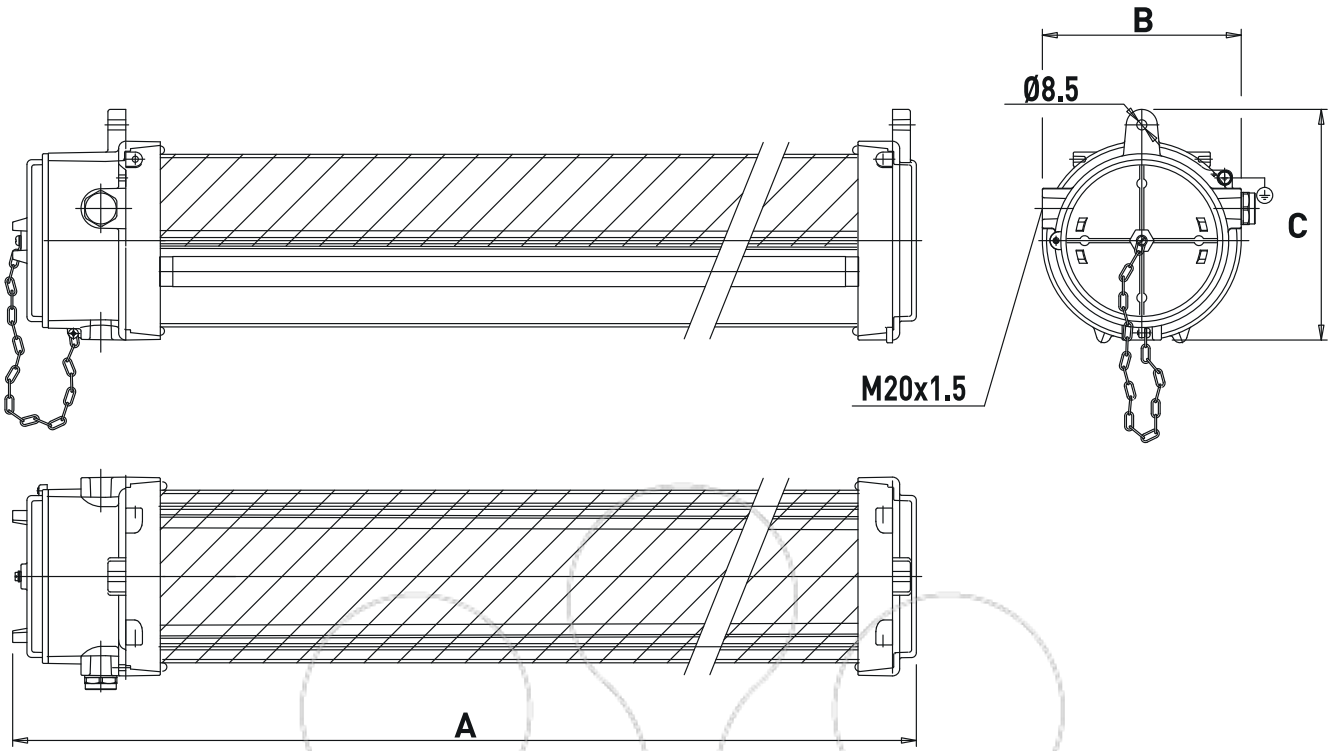


EVF-P lighting fixtures are manufactured with an high resistance cylindrical polycarbonate lamp housing and with end cups made of corrosion resistant copper free aluminium. Polycarbonate lamp housing is a three layers-extrusion UV resistant able to grant the best protection against sun rays and related yellowing effect.
Circular shape grants the best possible "CX" factor, therefore it is less affected by wind-dusts, no flat surfaces to avoid pollution and dirty bunching.
Components and design make EVF-P lighting fixtures suitable for high corrosion environments.
To increase further surface protection, upon request it is possible to apply an OFF-SHORE painting cycle suitable for marine environments.
All lighting fixtures are supplied ready for LOOP IN-LOOP OUT facility with cable up to 4 sqmm.

TECHNICAL FEATURES

Material	End cups in aluminium with low content of copper/Light housing in polycarbonate
IP/IK rating	IP66/IK10 according to EN 62262:2002
Ambient temperature range	-20°C to +55°C
Approvals	Certified 02ATEX0039X (standard)/TR CU (marking upon request, ordering code to be required) IECEx INE 15.0032X
Marking	II 2 GD Ex e mb IIC T4 Gb (Normal service)/Ex d e mb IIC T4 Gb (Emergency service) EX de IIC T4 Gb (available upon request) Ex tb IIIC T85°C Db IP66
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	End cups painted by green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 2 entries M20x1,5. One plugged-off by Ex d brass nickel chrome plated plug and relevant gasket.
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	EVF-P series lighting fixtures are suitable for two pins fluorescent lamps G13 socket Philips TL-D or equivalent (lamps excluded)
Ballast	High frequency electronic ballast conforming with EN 60079 – 18 and IEC 60079 – 18
Rated operation voltage (UE)	2x58W SOLO 220-240V - 110-240V or 220-277V (normal service) - 220-240V (emergency service)
Frequency	0/50-60 Hz (normal service) - 50-60 Hz (emergency service)
Power factor	> 0,95
Accessories available upon request	AISI304 Pole mounting kit/AISI304 Ceiling/Wall mounting kit/AISI304 Suspension mounting kit/3° bottom entry M20x1,5/AISI304 protection guard/Mounting kit in stainless steel AISI316
Operating principles	Available EVF-P lighting fixtures for emergency service of one tube: - 90 minutes; guarantees 60' duration with constant flux (emergency lumen factor 17%) and 30' with decreasing flux - 120 minutes (emergency lumen factor 10%) - 180 minutes; constant flux (emergency lumen factor 9%)
Photometric light curves	1 lamp  2 lamps 

Dimensions EVF-P



(EVF-P) Lighting fixtures for normal service

TYPE	CODE	POWER [W]	DIMENSIONS [mm]			WEIGHT [Kg]
			A	B	C	
EVF-P 118-Ex emb	A030111180011	1X18	764	176	194	6.50
EVF-P 218-Ex emb	A030112180011	2X18	764	176	194	6.50
EVF-P 136-Ex emb	A030111360011	1X36	1374	176	194	8.50
EVF-P 236-Ex emb	A030112360011	2X36	1374	176	194	8.50
EVF-P 158-Ex emb	A030111580011	1X58	1680	176	194	9.50
EVF-P 258-Ex emb	A030112580011	2X58	1680	176	194	10.50

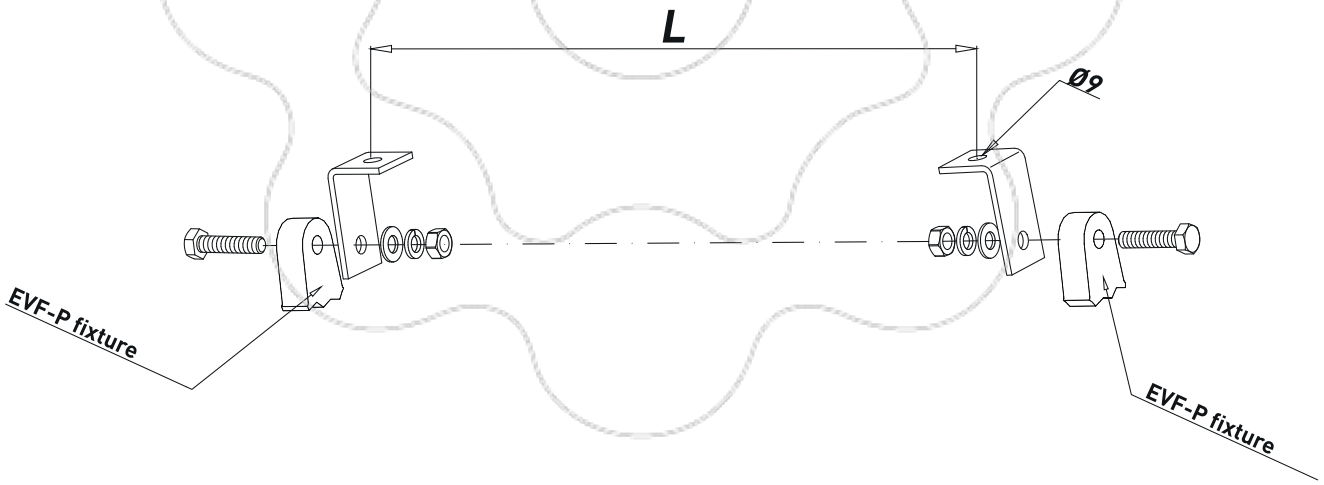
(EVF-P) Lighting fixtures for emergency service

TYPE	CODE	POWER [W]	EMERGENCY DURATION	DIMENSIONS [mm]			WEIGHT [Kg]
				A	B	C	
EVF-P 118 LE-P-90 Ex demb	A030211180111	1X18	90'	764	176	194	9.00
EVF-P 118 LE-P-120 EX demb	A030211180211	1X18	120'	764	176	194	10.00
EVF-P 218 LE-P-90 Ex demb	A030212180111	2X18	90'	764	176	194	9.00
EVF-P 218 LE-P-120 Ex demb	A030212180211	2X18	120'	764	176	194	10.00
EVF-P 136 LE-P-90 Ex demb	A030211360111	1X36	90'	1374	176	194	11.00
EVF-P 136 LE-P-120 Ex demb	A030211360211	1X36	120'	1374	176	194	12.00
EVF-P 136 LE-P-180 Ex demb	A030211360311	1X36	180'	1374	176	194	12.50
EVF-P 236 LE-P-90 Ex demb	A030212360111	2X36	90'	1374	176	194	11.00
EVF-P 236 LE-P-120 Ex demb	A030212360211	2X36	120'	1374	176	194	12.00
EVF-P 236 LE-P-180 Ex demb	A030212360311	2X36	180'	1374	176	194	12.50
EVF-P 158 LE-P-90 Ex demb	A030211580111	1X58	90'	1680	176	194	12.00
EVF-P 158 LE-P-120 Ex demb	A030211580211	1X58	120'	1680	176	194	13.00
EVF-P 158 LE-P-180 Ex demb	A030211580311	1X58	180'	1680	176	194	13.50
EVF-P 258 LE-P-90 Ex demb	A030212580111	2X58	90'	1680	176	194	12.00
EVF-P 258 LE-P-120 Ex demb	A030212580211	2X58	120'	1680	176	194	13.00
EVF-P 258 LE-P-180 Ex demb	A030212580311	2X58	180'	1680	176	194	13.50

SPARES & ACCESSORIES

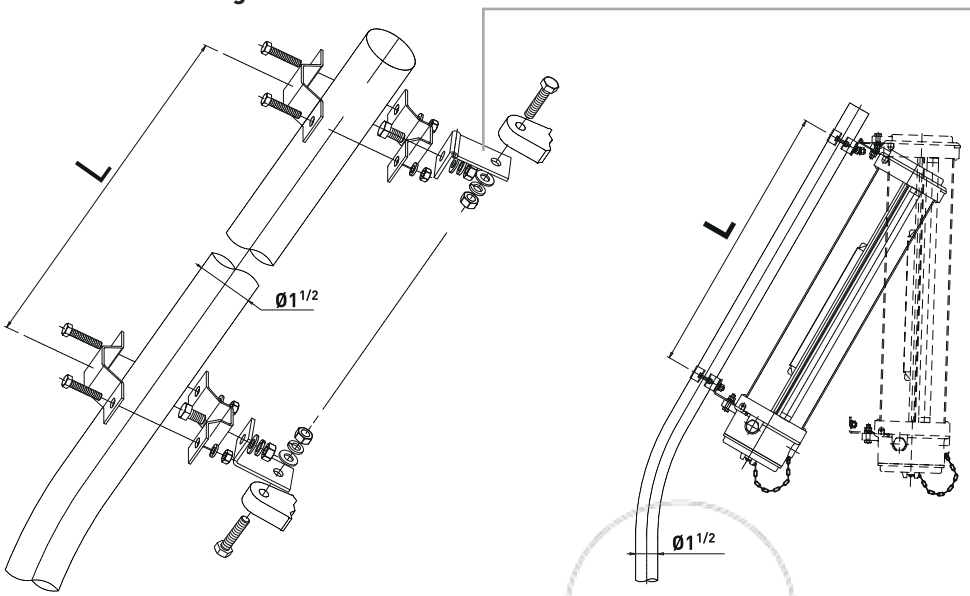
CODE	TYPE
A0A0300010000	1"1/2 POLE MOUNTING KIT P14 AISI316L
A0A0300009000	2" POLE MOUNTING KIT P14 AISI316L
A0A0300001000	CEILING MOUNTING KIT G3 AISI316L
A0A0200017000	SUSPENSION MOUNTING KIT G4 AISI304

G3 - Ceiling mounting kit

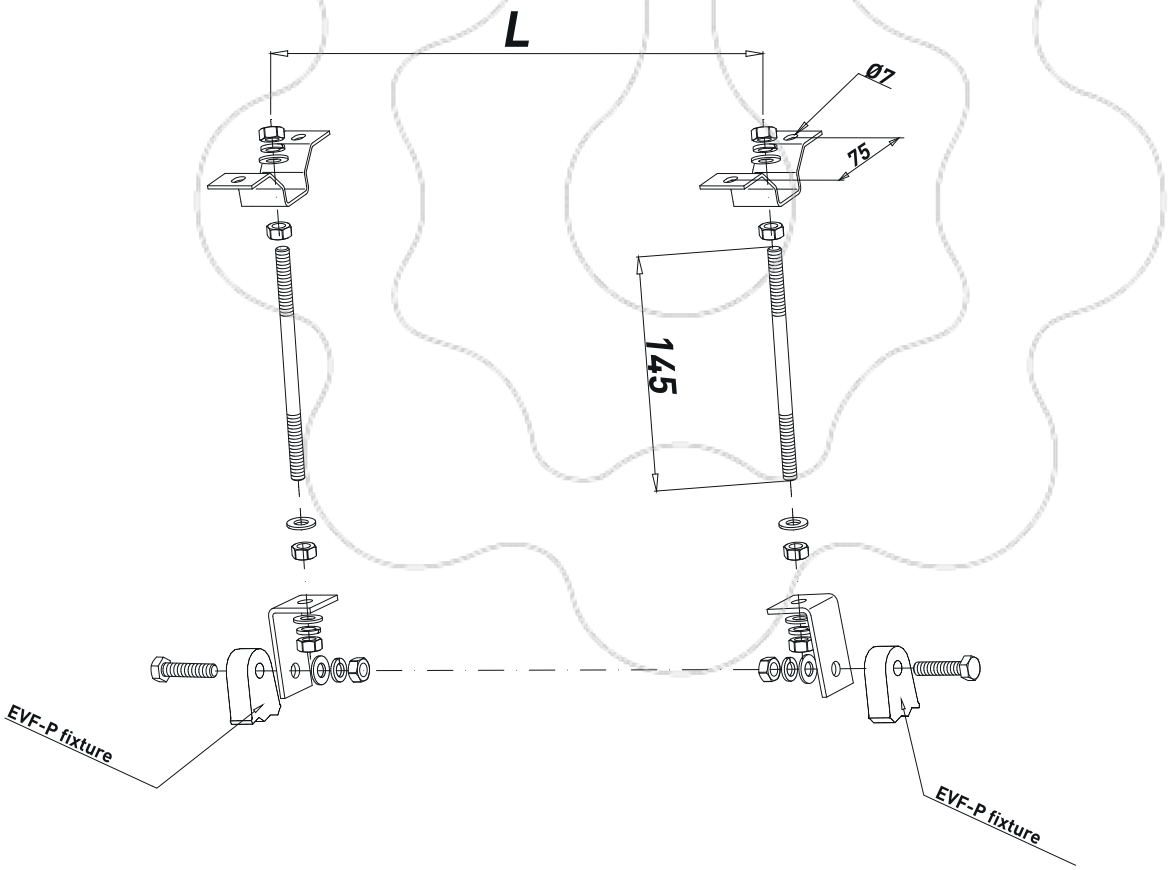


P14 - Pole mounting kit

• Hinge for easy maintenance



G4 - Suspension mounting kit



TYPE	L (mm)
EVF-P 118	605
EVF-P 218	605
EVF-P 136	1215
EVF-P 236	1215
EVF-P 158	1520
EVF-P 258	1520

FLUORESCENT LIGHTING

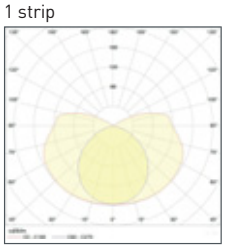
EVF-F.. Series - Zones 1, 2, 21 & 22, end-cups in GRP



- EVF-F lighting fixtures are manufactured with a high resistance cylindrical polycarbonate lamp housing and with end cups made of corrosion resistant and high mechanical resistance GRP
- Polycarbonate lamp housing is a three layers-extrusion UV resistant able to grant the best protection against sun rays and related yellowing effect.
- Circular shape grants the best possible "CX" factor, therefore it is less affected by winddusts, no flat surfaces to avoid pollution and dirty bunching.
- Components and design make EVF-F lighting fixtures suitable for high corrosion environments.
- All lighting fixtures are supplied ready for LOOP IN-LOOP OUT facility.

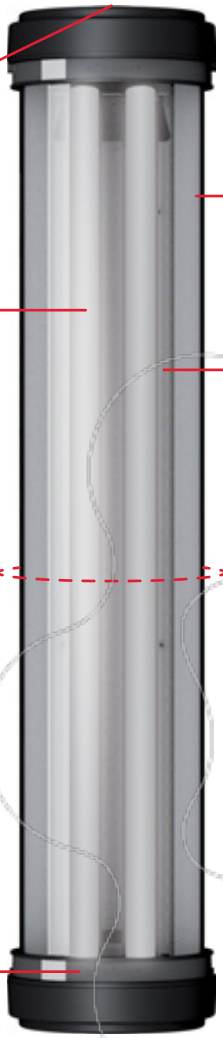
TECHNICAL FEATURES

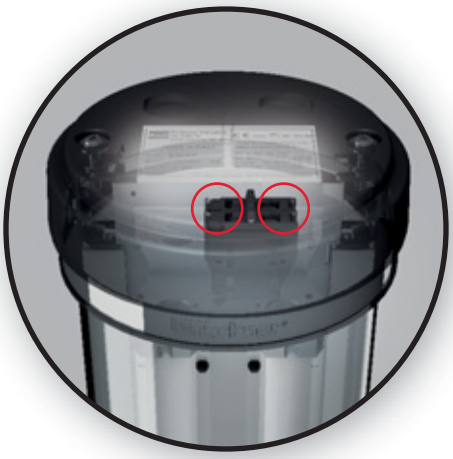
Material	- Transparent polycarbonate envelope UV protected - GRP flanges - Stainless steel fastening collar - White lacquered steel plate for increased reflectivity - Stainless steel screws
IP, IK rating	IP66/IP 69K - IK 10
Ambient temperature range	-20 °C to + 60 °C
Approval	ATEX LCIE 17 ATEX 3035 X IECEx: IECEx LCIE 17.0064X
ATEX markings	Ⓔx II 2 G Ex db eb mb IIC T6 to T3 Gb (type of protection and temp. class depend on electrical equipment) Ⓔx II 2 D Ex tb IIIC T80 °C to T140 °C Db Standards compliance IEC/EN 60079-0, 60079-1, 60079-7, 60079-18 and 60079-31
ATEX zones	Gas and Dust: zones 1&2, 21 & 22
Cable entries	PNCX connector for cable diameters 7 to 14 mm. On request: - 1 polyamide cable gland and 1 plug M20 for cable diameters 7 to 14 mm - 1 polyamide cable gland and 1 plug M25 for cable diameters 10 to 18 mm - Metal cable gland for armoured or unarmoured cable - Loop In/Loop Out - Through wiring - + 2 PNCX loop In/loop Out
Lamps	EVF-F series lighting fixtures are suitable for two pins fluorescent lamps G13 socket Philips TL-D or equivalent (lamps excluded)
Ballast	Possibility to have High frequency electronic ballast in compliance with IEC/EN 60079-18
Electrical specifications	
Voltage	220-240 Vac (normal and emergency service)/198-278 Vdc (normal service)
Frequency	0/50-60 Hz
Power factor	> 0.95
Automatic emergency version	Available EVF-F lighting fixtures for emergency service of one tube: - 90 minutes; guarantees 60' duration with constant flux (emergency lumen factor 17%) and 30' with decreasing flux - 120 minutes (emergency lumen factor 10%) - 180 minutes; constant flux (emergency lumen factor 9%)
Accessories available	AISI304 Pole mounting kit/AISI304 Ceiling/Wall mounting kit/AISI304 Suspension
Upon request	Mounting kit/3° bottom entry M20x1,5/AISI304 protection guard/Mounting kit in stainless steel AISI316
Photometric light curves	1 strip



The EVF-F luminaries have a very high mechanical resistance to shocks IK10 and corrosion while being particularly bright. Thus they meet all requirements of aggressive environments (humidity, corrosion, pollution) for industrial areas at risk of explosion.

EVF-F LUMINARIES





Two opening switches allow the light source and the battery to be switched off automatically when the luminary flange is open.

MODULAR CONNEXION WAY

Through PNCX connector

- easier and quicker installation & maintenance
- easier loop in loop out, you can keep lighting throughout other lightings during maintenance operations.



LOOP IN/LOOP OUT
1 SOCKET + 1 PLUG
PNCX VERSION

With cable gland

- Metric threads M20 or M25
- Loop in loop out facility
- Available for armoured cables or unarmoured.



LOOP IN/LOOP OUT
POLY GLAND VERSION



ARMOURED CABLE GLAND
VERSION

EVF-F.. Series for normal service

TYPE	CODE	LAMP [W]	DIMENSIONS [mm]			WEIGHT [Kg]
			A	B	C	
EVF-F 118	A120111200040	18	745	153	166	4.50
EVF-F 218	A120112200040	2 X 18	745	153	166	4.50
EVF-F 136	A120111400040	36	1342	153	166	6.50
EVF-F 236	A120112400040	2 X 36	1342	153	166	6.50
EVF-F 158	A120111500040	58	1642	153	166	8.50
EVF-F 258	A120112500040	2 X 58	1642	153	166	8.50

EVF-F.. Series for emergency service

TYPE PERMANENT	CODE	POWER [W]	DIMENSIONS [mm]			WEIGHT [Kg]
			A	B	C	
EVF-F 118 LE P 90	A120211200540	1X18	745	153	166	7.00
EVF-F 118 LE P 120	A120211201540	1X18	745	153	166	8.00
EVF-F 218 LE P 90	A120212200540	2X18	745	153	166	7.00
EVF-F 218 LE P 120	A120212201540	2X18	745	153	166	8.00
EVF-F 136 LE P 90	A120211400540	1X36	1342	153	166	9.00
EVF-F 136 LE P 120	A120211401540	1X36	1342	153	166	10.00
EVF-F 136 LE P 180	A120211402540	1X36	1342	153	166	10.50
EVF-F 236 LE P 90	A120212400540	2X36	1342	153	166	9.00
EVF-F 236 LE P 120	A120212401540	2X36	1342	153	166	10.00
EVF-F 236 LE P 180	A120212402540	2X36	1342	153	166	10.50
EVF-F 158 LE P 90	A120211500540	1X58	1642	153	166	10.00
EVF-F 158 LE P 120	A120211501540	1X58	1642	153	166	11.00
EVF-F 158 LE P 180	A120211502540	1X58	1642	153	166	11.50
EVF-F 258 LE P 90	A120212500540	2X58	1642	153	166	10.00
EVF-F 258 LE P 120	A120212501540	2X58	1642	153	166	11.00
EVF-F 258 LE P 180	A120212502540	2X58	1642	153	166	11.50

TYPE NON PERMANENT	CODE	POWER [W]	DIMENSIONS [mm]			WEIGHT [Kg]
			A	B	C	
EVF-F 118 LE NP 90	A120201210540	1X18	745	153	166	7.00
EVF-F 118 LE NP 120	A120201211540	1X18	745	153	166	8.00
EVF-F 136 LE NP 90	A120201410540	1X36	1342	153	166	9.00
EVF-F 136 LE NP 120	A120201411540	1X36	1342	153	166	10.00
EVF-F 136 LE NP 180	A120201412540	1X36	1342	153	166	10.50
EVF-F 158 LE NP 90	A120201510540	2X58	1642	153	166	10.00
EVF-F 158 LE NP 120	A120201511540	2X58	1642	153	166	11.00
EVF-F 158 LE NP 180	A120201512540	2X58	1642	153	166	11.50



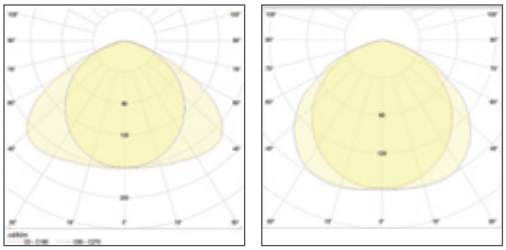
FLUORESCENT LIGHTING

RMS-560.. Series - Zones 1, 2, 21 & 22 - Stainless steel AISI 304



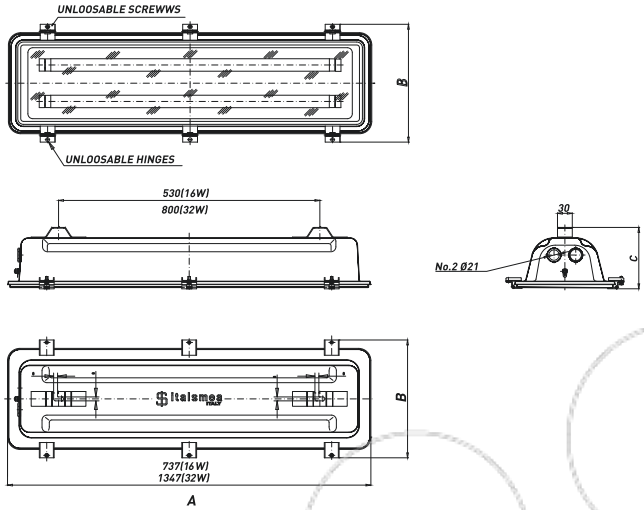
RMS.. series lighting fixtures are ideally suited for ON and OFF-SHORE applications and all kinds of industries where there is an high level of corrosion. Both body and glass frame are made of stainless steel AISI304 and manufactured from a single sheet of steel with no invasive mounting holes, to minimize the risk of water ingress through the housing. Out of holes for power supply cable, whatever protected by a suitable cable gland (available upon request), there are no passing through holes between inside and outside of luminaire. Therefore during the time there is no risk of IP rating decrease as it would be possible where, for fixing devices, there are through holes and relevant gaskets. Design has been studied to allow operator working with free hands and no need to support any part of lighting fixture. One person can take care of start-up or maintenance without any aid and assistance. Due to inorganic materials like stainless steel and glass, RMS.. series lighting fixtures are 95% recyclable; only components and insulation of single core wires need some more care.

TECHNICAL FEATURES

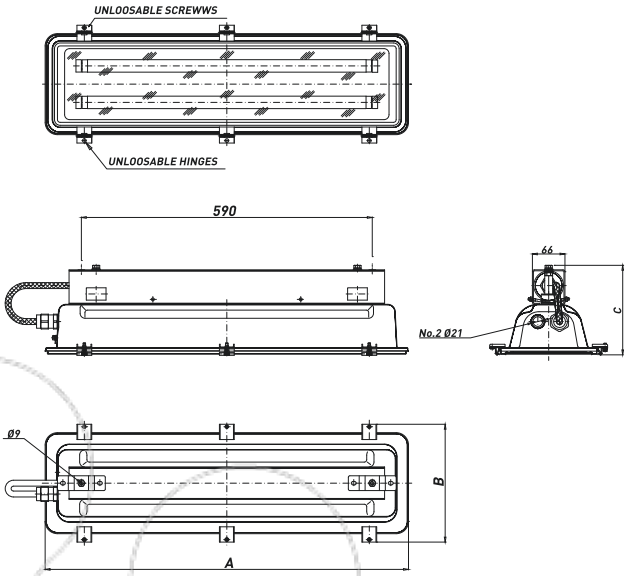
Material	AISI304 stainless steel, 0,8mm thickness and transparent part in tempered glass (AISI 316 L version available upon request)
IP rating	IP65
Ambient temperature range	-20°C to +60°C
Approvals	Certified 01ATEX0060 (standard) TR CU (marking upon request, ordering code to be required)
Marking	II 2 GD Ex de IIC T(**) Ex tD A21 IP65 T(**) ** T6/T85°C, T5/T100°C, T4/T135°C
Gaskets	Special cross-section tightness gasket, silicon rubber made (closed cell), located in housing channel between body and window frame.
Entries	Body complete of two 21mm Ø through holes (on one side) for cable entry, one complete of metallic plug with M20 locknut and gasket and the other one with temporary plastic plug to prevent dust ingress.
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	RMS series lighting fixtures are suitable for two pins fluorescent lamps G13 socket Philips TL-D or equivalent (lamps excluded)
Ballast	High frequency electronic ballast conforming with EN 60079 – 1 and IEC 60079 – 1
Rated operation voltage (UE)	220-240 V
Frequency	50-60 Hz
Power factor	> 0,95
Accessories available upon request	Pole mounting kit/Ceiling mounting kit/Suspension mounting kit/Wall mounting kit 3°- 4° through holes opposite side
Operating principles	Available RMS.. lighting fixtures for emergency service of one tube: - 90 minutes ; guarantees 60' duration with constant flux (emergency lumen factor 18%) and 30' with decreasing flux
Photometric light curves	

Dimensions RMS-560

RMS-560
(18W)
(36W)



RMS-560 EM
(18W)



(RMS-560) Lighting fixtures for normal service

TYPE	CODE	POWER [W]	TEMPERATURE CLASS	AMBIENT TEMPERATURE	DIMENSIONS [mm]			WEIGHT [Kg]
					A	B	C	
RMS-560-03	A020121180300	1X18	GAS T5 DUST T100°C	(-20 °C;+55 °C)**	737	239	123	5.60
RMS-560-04	A020122180300	2X18	GAS T5 DUST T100°C	(-20 °C;+55 °C)**	737	239	123	5.70
RMS-560-01	A020121360300	1X36	GAS T5 DUST T100°C	(-20 °C;+55 °C)**	1347	239	123	8.90
RMS-560-02	A020122360300	2X36	GAS T5 DUST T100°C	(-20 °C;+55 °C)**	1347	239	123	9.10
RMS-560-03/MS*	A020121180301	1X18	GAS T5 DUST T100°C	(-20 °C;+55 °C)**	737	239	123	5.65
RMS-560-04/MS*	A020122180301	2X18	GAS T5 DUST T100°C	(-20 °C;+55 °C)**	737	239	123	5.75
RMS-560-01/MS*	A020121360301	1X36	GAS T5 DUST T100°C	(-20 °C;+55 °C)**	1347	239	123	8.95
RMS-560-02/MS*	A020122360301	2X36	GAS T5 DUST T100°C	(-20 °C;+55 °C)**	1347	239	123	9.15

* With micro-switch
** In case of maximum ambient temperature reach +60°C, temperature class changes into T4/T135°C (ordering code to be required).
In case of maximum ambient temperature reach +40°C, temperature class changes into T6/T85°C (ordering code to be required).

(RMS-560) Lighting fixtures for emergency service

TYPE	CODE	POWER [W]	TEMPERATURE CLASS	AMBIENT TEMPERATURE	EMERGENCY DURATION	DIMENSIONS [mm]			WEIGHT [Kg]
						A	B	C	
RMS-560-03 LE-P-90	A020221181310	1X18	GAS T5 DUST T100°C	(-20 °C;+55 °C)*	90'	737	239	183	9.50
RMS-560-04 LE-P-90	A020222181310	2X18	GAS T5 DUST T100°C	(-20 °C;+55 °C)*	90'	737	239	183	9.60
RMS-560-01 LE-P-90	A020221361310	1X36	GAS T5 DUST T100°C	(-20 °C;+55 °C)*	90'**	1347	239	123	14.10
RMS-560-02 LE-P-90	A020222361310	2X36	GAS T5 DUST T100°C	(-20 °C;+55 °C)*	90'**	1347	239	123	14.30

* In case of maximum ambient temperature reach +60°C, temperature class changes into T4/T135°C (ordering code to be required).
In case of maximum ambient temperature reach +40°C, temperature class changes into T6/T85°C (ordering code to be required).
** 120' version available upon request (ordering code to be required).

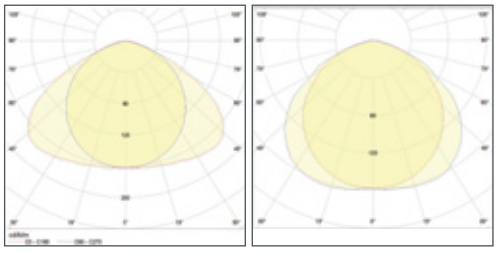
FLUORESCENT LIGHTING

RMS-550.. Series - Zones 2 & 22 - Stainless steel AISI 304

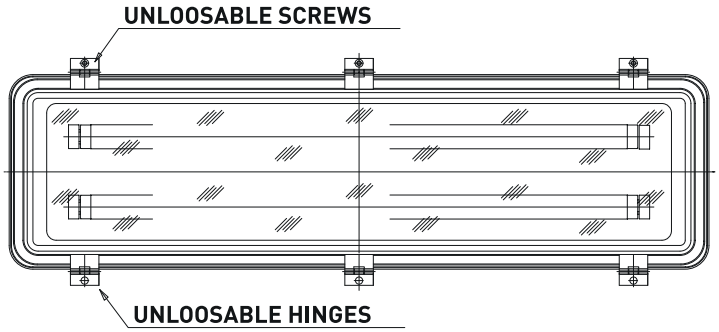


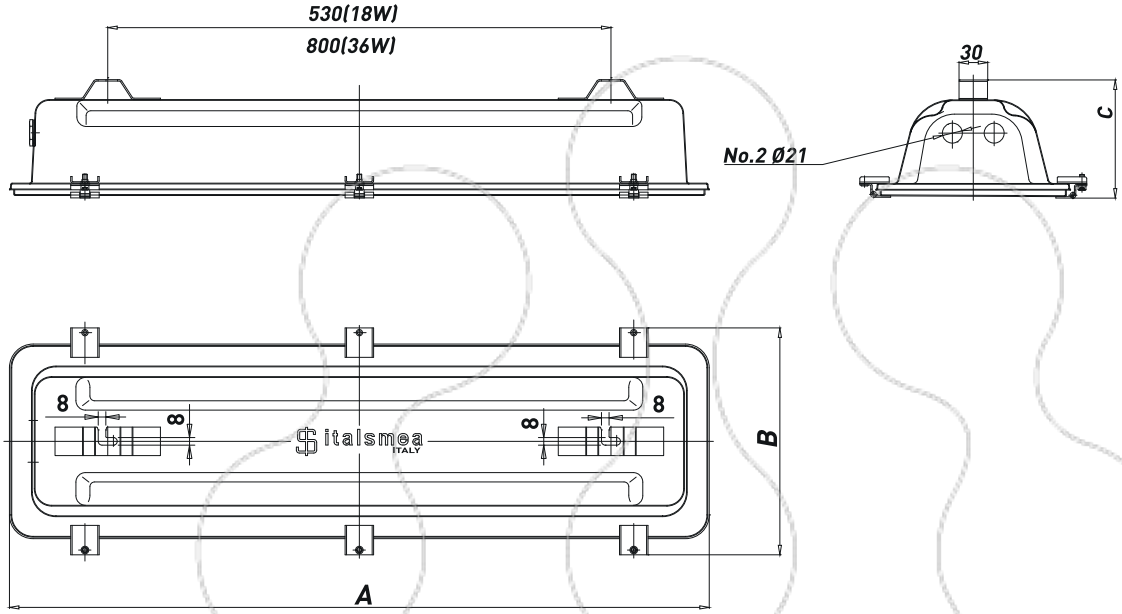
RMS.. series lighting fixtures are ideally suited for ON and OFF-SHORE applications and all kinds of industries where there is an high level of corrosion.
Both body and glass frame are made of stainless steel AISI304 and manufactured from a single sheet of steel with no invasive mounting holes, to minimize the risk of water ingress through the housing. Out of holes for power supply cable, whatever protected by a suitable cable gland (available upon request), there are no passing through holes between inside and outside of luminaire. Therefore during the time there is no risk of IP rating decrease as it would be possible where, for fixing devices, there are through holes and relevant gaskets. Design has been studied to allow operator working with free hands and no need to support any part of lighting fixture. One person can take care of start-up or maintenance without any aid and assistance. Due to inorganic materials like stainless steel and glass, RMS.. series lighting fixtures are 95% recyclable; only components and insulation of single core wires need some more care.

TECHNICAL FEATURES

Material	AISI304 stainless steel, 0,8mm thickness and transparent part in tempered glass (AISI 316 L version available upon request)
IP rating	IP65
Ambient temperature range	-30°C to +55°C
Approvals	Certified 01ATEX3002X (standard) TR CU (marking upon request, ordering code to be required)
Marking	II 3 GD Ex nA II T(**) Ex tD A22 IP65 T(**) ** T5/T90°C, T5/100°C, T4/T105°C
Gaskets	Special cross-section tightness gasket, silicon rubber made (closed cell), located in housing channel between body and window frame.
Entries	Body complete of two 21mm Ø through holes (on one side) for cable entry, one complete of metallic plug with M20 locknut and gasket and the other one with temporary plastic plug to prevent dust ingress.
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	RMS series lighting fixtures are suitable for two pins fluorescent lamps G13 socket Philips TL-D or equivalent (lamps excluded)
Ballast	High frequency electronic ballast conforming with EN 60079 – 15 and IEC 60079 – 15
Rated operation voltage (UE)	220-240 V
Frequency	50-60 Hz
Power factor	> 0,95
Accessories available upon request	Pole mounting kit/Ceiling mounting kit/Suspension mounting kit/Wall mounting kit/3°- 4° through holes opposite side
Operating principles	Available RMS.. lighting fixtures for emergency service of one tube: - 90 minutes; guarantees 60' duration with constant flux (emergency lumen factor 18%) and 30' with decreasing flux
Photometric light curves	

Dimensions RMS-550





(RMS-550) Lighting fixtures for normal service

TYPE	CODE	POWER [W]	TEMPERATURE CLASS	AMBIENT TEMPERATURE	DIMENSIONS [mm]			WEIGHT [Kg]
					A	B	C	
RMS-550-03	A020111180200	1X18	GAS T5 DUST T100°C	(-20 °C;+50 °C)**	737	239	123	5.10
RMS-550-04	A020112180200	2X18	GAS T5 DUST T100°C	(-20 °C;+50 °C)**	737	239	123	5.20
RMS-550-01	A020111360200	1X36	GAS T5 DUST T100°C	(-20 °C;+50 °C)**	1347	239	123	8.40
RMS-550-02	A020112360200	2X36	GAS T5 DUST T100°C	(-20 °C;+50 °C)**	1347	239	123	8.60

* In case of maximum ambient temperature reach +55°C, temperature class changes into T4/T105°C (ordering code to be required).

(RMS-550) Lighting fixtures for emergency service

TYPE	CODE	POWER [W]	TEMPERATURE CLASS	AMBIENT TEMPERATURE	EMERGENCY DURATION	DIMENSIONS [mm]			WEIGHT [Kg]
						A	B	C	
RMS-550-03 LE-P-90	A020211181210	1X18	GAS T5 DUST T100°C	(-20 °C;+50 °C)**	90'	737	239	123	5.80
RMS-550-04 LE-P-90	A020212181210	2X18	GAS T5 DUST T100°C	(-20 °C;+50 °C)**	90'	737	239	123	5.90
RMS-550-01 LE-P-90	A020211361210	1X36	GAS T5 DUST T100°C	(-20 °C;+50 °C)**	90'**	1347	239	123	9.10
RMS-550-02 LE-P-90	A020212361210	2X36	GAS T5 DUST T100°C	(-20 °C;+50 °C)*	90'**	1347	239	123	9.30

* In case of maximum ambient temperature reach +55°C, temperature class changes into T4/T105°C (ordering code to be required).
** 120' version available upon request (ordering code to be required).

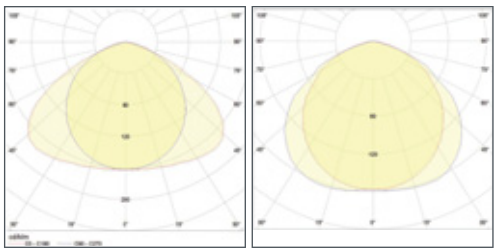
FLUORESCENT LIGHTING

RMS-540.. Series - Safe area - Stainless steel AISI 304

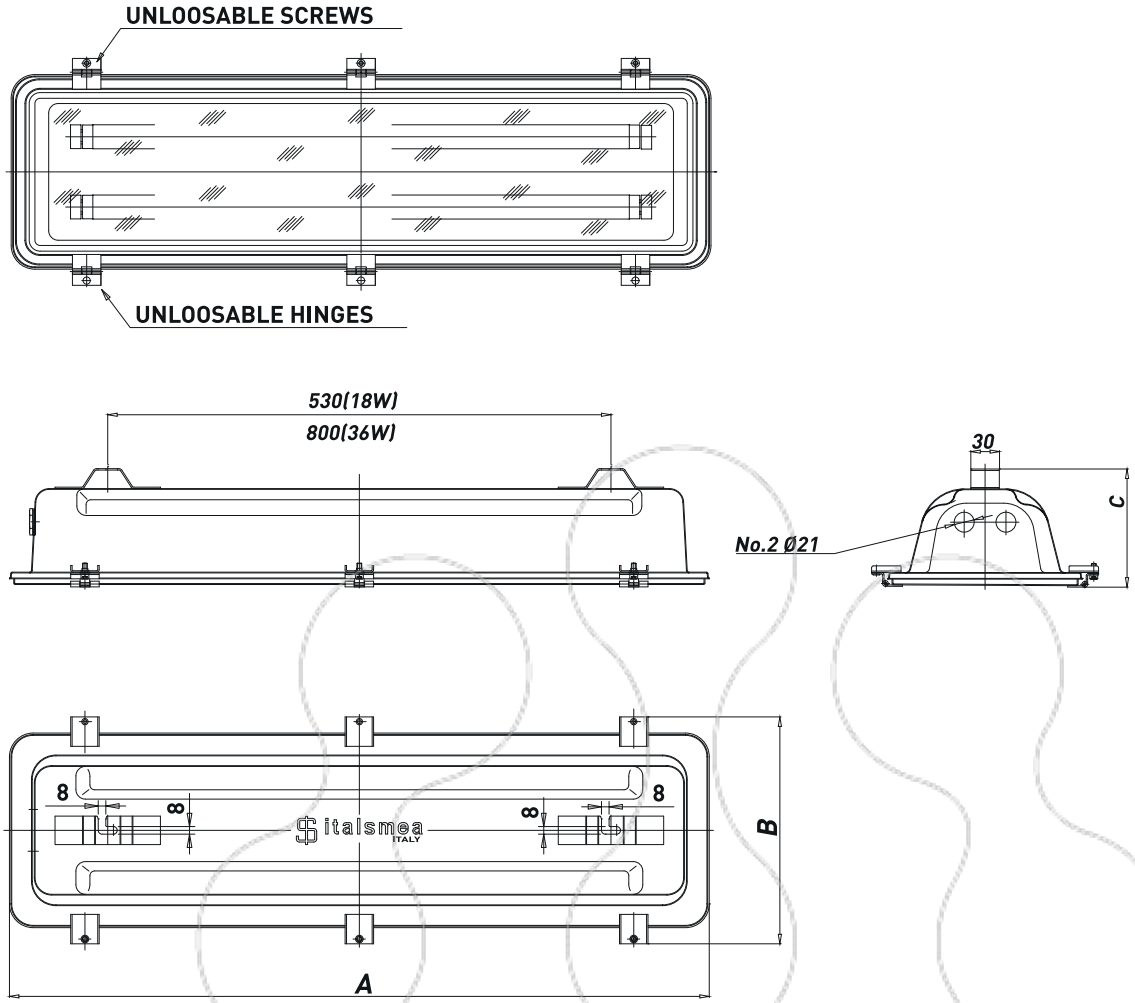


RMS.. series lighting fixtures are ideally suited for ON and OFF-SHORE applications and all kinds of industries where there is an high level of corrosion.
Both body and glass frame are made of stainless steel AISI304 and manufactured from a single sheet of steel with no invasive mounting holes, to minimize the risk of water ingress through the housing. Out of holes for power supply cable, whatever protected by a suitable cable gland (available upon request), there are no passing through holes between inside and outside of luminaire. Therefore during the time there is no risk of IP rating decrease as it would be possible where, for fixing devices, there are through holes and relevant gaskets. Design has been studied to allow operator working with free hands and no need to support any part of lighting fixture. One person can take care of start-up or maintenance without any aid and assistance. Due to inorganic materials like stainless steel and glass, RMS.. series lighting fixtures are 95% recyclable; only components and insulation of single core wires need some more care.

TECHNICAL FEATURES

Material	AISI304 stainless steel, 0,8mm thickness and transparent part in tempered glass (AISI 316 L version available upon request)
IP rating	IP65
Ambient temperature range	-20°C to +60°C
Standards	Compliance with Electromagnetic Compatibility (EMC) according to European Directive 2004/108/CE
Gaskets	Special cross-section tightness gasket, silicon rubber made (closed cell), located in housing channel between body and window frame.
Entries	Body complete of two 21mm Ø through holes (on one side) for cable entry, one complete of metallic plug with M20 locknut and gasket and the other one with temporary plastic plug to prevent dust ingress.
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	RMS series lighting fixtures are suitable for two pins fluorescent lamps G13 socket Philips TL-D or equivalent (lamps excluded)
Ballast	Electromechanical ballast with starter and capacitor
Rated operation voltage (UE)	230 V
Frequency	50 Hz
Power factor	> 0,9
Accessories available upon request	Wiring with High frequency electronic ballast (220-240 V 50-60 Hz)/Pole mounting kit/Ceiling mounting kit/Suspension mounting kit/Wall mounting kit/3°- 4° through holes opposite side
Operating principles	Available RMS.. lighting fixtures for emergency service of one tube: - 90 minutes; guarantees 60' duration with constant flux (emergency lumen factor 18%) and 30' with decreasing flux
Photometric light curves	

Dimensions RMS 540



(RMS-540) Lighting fixtures for normal service

TYPE	CODE	POWER [W]	DIMENSIONS [mm]			WEIGHT [Kg]
			A	B	C	
RMS-540-03	A020101180200	1X18	737	239	123	5.10
RMS-540-04	A020102180200	2X18	737	239	123	5.20
RMS-540-01	A020101360200	1X36	1347	239	123	8.40
RMS-540-02	A020102360200	2X36	1347	239	123	8.60

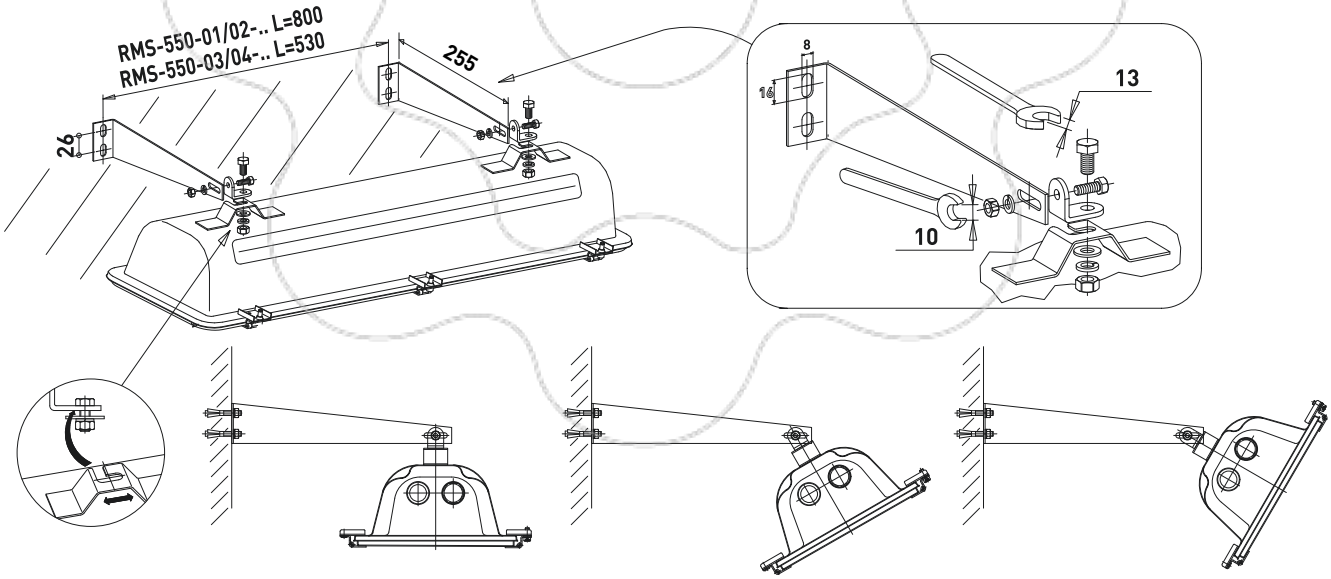
(RMS-540) Lighting fixtures for emergency service

TYPE	CODE	POWER [W]	AMBIENT TEMPERATURE	EMERGENCY DURATION	DIMENSIONS [mm]			WEIGHT [Kg]
					A	B	C	
RMS-540-03 LE-P-90	A020201181210	1X18	(-20 °C; +60 °C)	737	239	123	5.80	5.80
RMS-540-04 LE-P-90	A020202181210	2X18	(-20 °C; +60 °C)	737	239	123	5.90	5.90
RMS-540-01 LE-P-90	A020201361210	1X36	(-20 °C; +60 °C)	1347	239	123	9.10	9.10
RMS-540-02 LE-P-90	A020202361210	2X36	(-20 °C; +60 °C)	1347	239	123	9.30	9.30

SPARES & ACCESSORIES

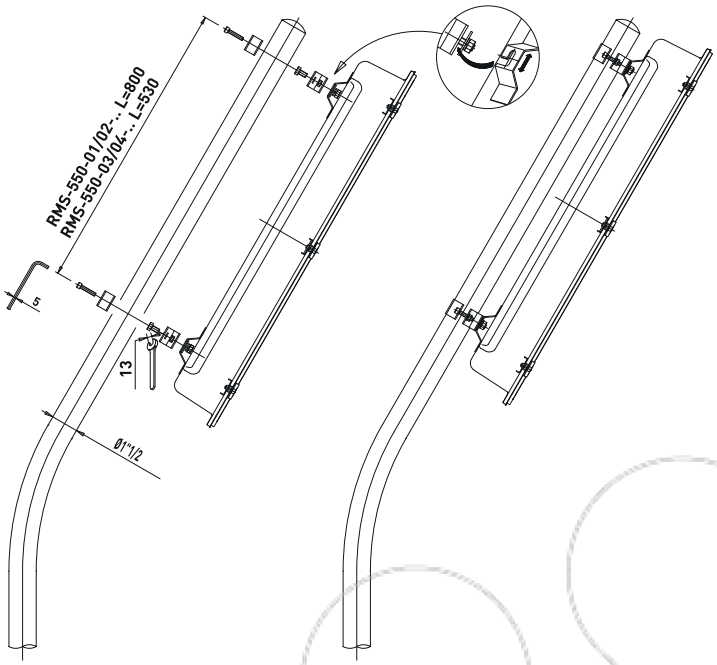
CODE	TYPE
A0A0205371000	1"1/2 POLE MOUNTING KIT P12 AISI316L
A0A0215371000	2" POLE MOUNTING KIT P12 AISI304
A0A0253076000	WALL MOUNTING KIT H1 AISI316
A0A0253075000	SUSPENSION MOUNTING KIT G1 AISI304

H1 - Wall mounting kit

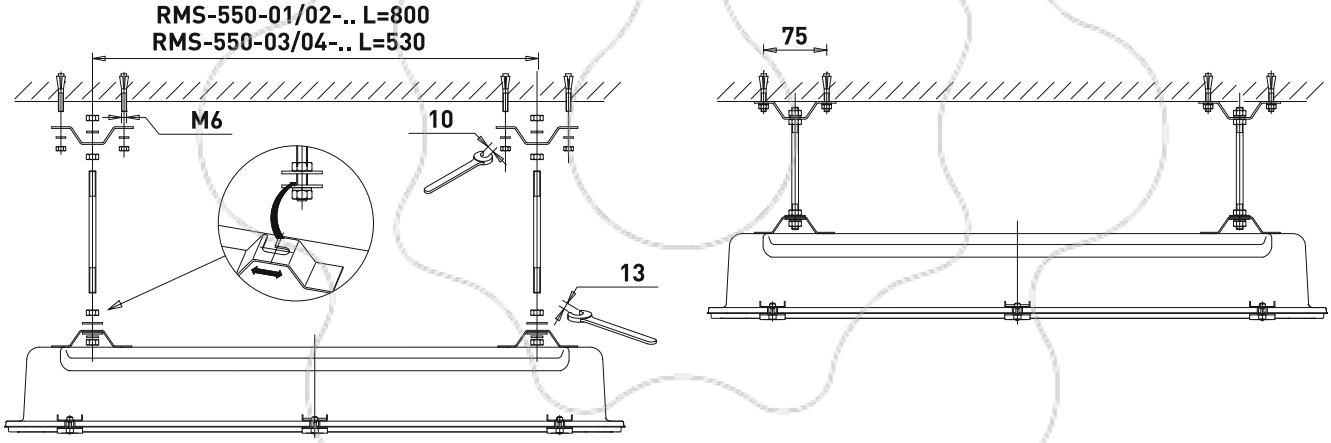


Note: Expansion bolts (for concrete) or bolts (for steel frame) are not included in our kit.

P12 - Pole mounting kit

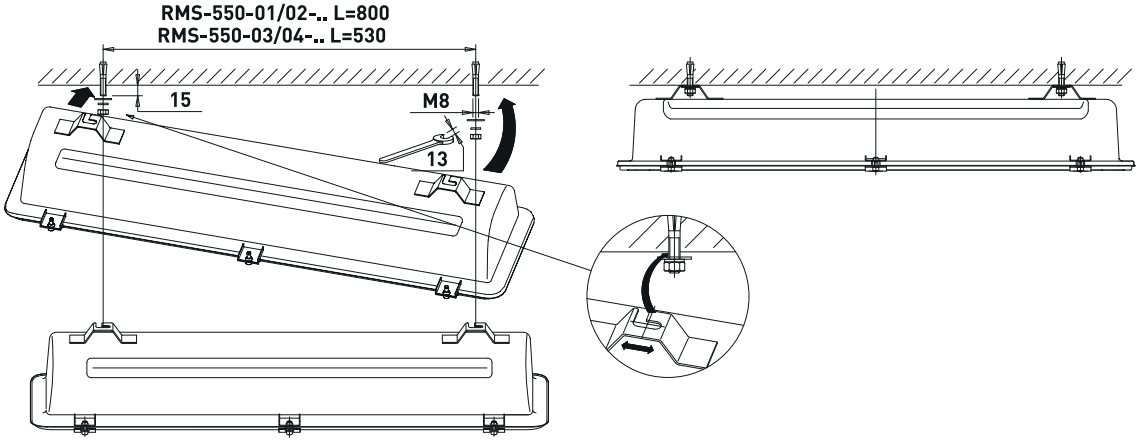


G1 - Suspension mounting kit



Note: Expansion bolts (for concrete) or bolts (for steel frame) are not included in our kit.

Ceiling mounting (STANDARD VERSION)



Note: Expansion bolts (for concrete) or bolts (for steel frame) are not included in our kit.

FLUORESCENT LIGHTING

G2X Series - Zones 2 & 22



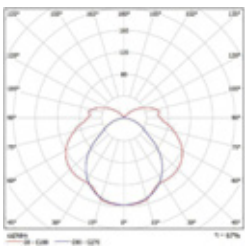
Luminaires G2X are suited for hazardous areas of industrial plants and space included in Zone 2 and 22.

The advantages of this luminaires series:

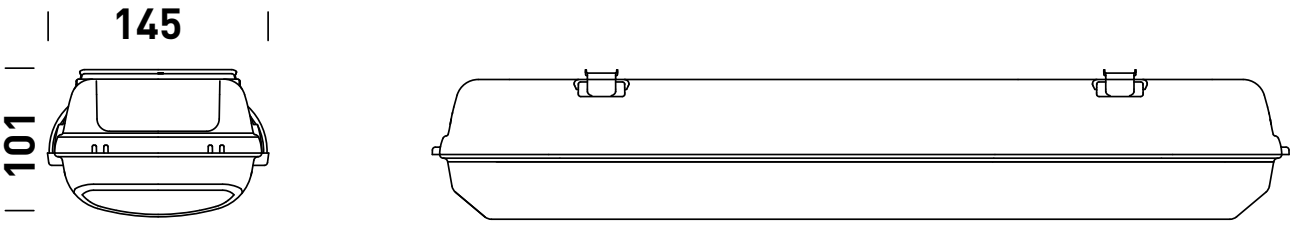
- Solid & compact structure
- Simple , easy and quick installation
- Possibility to suspend the lens hinge when replacing fluorescent lamps
- High resistance to corrosive industrial environment
- High luminous efficiency
- Quality ignition systems
- UV resistant
- Easy maintenance
- Transparent diffuser in PC with UV protection.

TECHNICAL FEATURES

Material	GRP + 2 gear tray holders in white lacquered steel plate Transparent diffuser in PC with UV protection and high impact resistance
IP rating	IP66
Ambient temperature range	-20°C to +40°C
Approvals	OBAC 15 CZ/ATEX 163X
Marking	II 3G Ex nA IIC T6 Gc II 3D Ex tc IIIC T85°C Dc IP66
Standards	EN 60079-0, EN 60079-15, EN 60079-31
Zones	Zone 2 , 22
Gaskets	Gasket in polyurethane
Entries	N° 1 passing entry M20
Hardware and screws	Fixing springs and closing clips in stainless steel
Lamps	T8 lamps , with power 18W , 36W, 58W T5, with a power 14W, 24W,28W, 35W, 49W,54W,80W
Ballast	Electronic
Rated operation voltage (UE)	230V AC/DC (normal service); 230V AC (emergency service); 110V according to execution
Frequency	50-60Hz in AC
Accessories upon request	Polyamide ATEX cable gland M20x1,5
Maximum number of terminals	3x2,5mm^2
Colour	GRP housing in graphite (RAL 7035)
Options	Emergency kit 1h or 3h, Black GRP housing RAL9011, Yellow GRP housing RAL1003
Photometric light curves	Impact resistance IK08



Dimensions G2X FLUO



G2X Fluo - T8

CODE	DESCRIPTION	DIMENSIONS [MM]	POWER [W]	SERVICE	WEIGHT [Kg]	POWER SUPPLY
A110100118111	G2X 2-118 E PC INOX	665 X 145 X 101	1 X 18W	NORMAL	3,3	230V AC/DC
A110100136111	G2X 2-136 E PC INOX	1282 X 145 X 101	1 X 36W	NORMAL	3,8	
A110100158111	G2X 2-158 E PC INOX	1578 X 145 X 101	1 X 58W	NORMAL	5	
A110100218111	G2X 218 E PC INOX	665 X 145 X 101	2 X 18W	NORMAL	3,3	
A110100236111	G2X 236 E PC INOX	1282 X 145 X 101	2 X 36W	NORMAL	3,8	
A110100258111	G2X 258 E PC INOX	1578 X 145 X 101	2 X 58W	NORMAL	5	
A110100136121	G2X 2-136 E EB1H PC INOX	1282 X 145 X 101	1 X 36W	NORMAL - 1H EMERGENCY		230V AC
A110100218121	G2X 218 E EB1H PC INOX	665 X 145 X 101	2 X 18W	NORMAL - 1H EMERGENCY		
A110100236121	G2X 236 E EB1H PC INOX	1282 X 145 X 101	2 X 36W	NORMAL - 1H EMERGENCY		
A110100258121	G2X 258 E EB1H PC INOX	1578 X 145 X 101	2 X 58W	NORMAL - 1H EMERGENCY		
A110100136131	G2X 2-136 E EB3H PC INOX	1282 X 145 X 101	1 X 36W	NORMAL - 3H EMERGENCY		230V AC
A110100218131	G2X 218 E EB3H PC INOX	665 X 145 X 101	2 X 18W	NORMAL - 3H EMERGENCY		
A110100236131	G2X 236 E EB3H PC INOX	1282 X 145 X 101	2 X 36W	NORMAL - 3H EMERGENCY		
A110100258131	G2X 258 E EB3H PC INOX	1578 X 145 X 101	2 X 58W	NORMAL - 3H EMERGENCY		

G2X Fluo - T5

CODE	DESCRIPTION	DIMENSIONS [MM]	POWER [W]	SERVICE	WEIGHT [Kg]	POWER SUPPLY
A110100114111	G2X 2-114 E PC INOX	665X145X101	1 X 14W	NORMAL	1.8	
A110100124111	G2X 2-124 E PC INOX	665X145X101	1 X 24W	NORMAL	1.8	
A110100128111	G2X 2-128 E PC INOX	1282X145X101	1 X 28W	NORMAL	2.9	
A110100135111	G2X 2-135 E PC INOX	1578X145X101	1 X 35W	NORMAL	3.6	
A110100149111	G2X 2-149 E PC INOX	1578X145X101	1 X 49W	NORMAL	3.6	
A110100154111	G2X 2-154 E PC INOX	1282X145X101	1 X 54W	NORMAL	2.9	
A110100180111	G2X 2-180 E PC INOX	1578X145X101	1 X 80W	NORMAL	5	230V AC/DC
A110100214111	G2X 214 E PC INOX	665X145X101	2 X 14W	NORMAL	1.8	
A110100224111	G2X 224 E PC INOX	665X145X101	2 X 24W	NORMAL	1.8	
A110100228111	G2X 228 E PC INOX	1282X145X101	2 X 28W	NORMAL	2.9	
A110100235111	G2X 235 E PC INOX	1578X145X101	2 X 35W	NORMAL	3.6	
A110100249111	G2X 249 E PC INOX	1578X145X101	2 X 49W	NORMAL	3.6	
A110100254111	G2X 254 E PC INOX	1282X145X101	2 X 54W	NORMAL	2.9	
A110100128121	G2X 2-128 E EB1H PC INOX	1282X145X101	1 X 28W	NORMAL - 1H EMERGENCY	3.7	
A110100135121	G2X 2-135 E EB1H PC INOX	1578X145X101	1 X 35W	NORMAL - 1H EMERGENCY	4.4	
A110100149121	G2X 2-149 E EB1H PC INOX	1578X145X101	1 X 49W	NORMAL - 1H EMERGENCY	4.4	
A110100154121	G2X 2-154 E EB1H PC INOX	1282X145X101	1 X 54W	NORMAL - 1H EMERGENCY	3.7	
A110100180121	G2X 2-180 E EB1H PC INOX	1578X145X101	1 X 80W	NORMAL - 1H EMERGENCY	4.4	
A110100214121	G2X 214 E EB1H PC INOX	665X145X101	2 X 14W	NORMAL - 1H EMERGENCY	2.6	230V AC
A110100224121	G2X 224 E EB1H PC INOX	665X145X101	2 X 24W	NORMAL - 1H EMERGENCY	2.6	
A110100228121	G2X 228 E EB1H PC INOX	1282X145X101	2 X 28W	NORMAL - 1H EMERGENCY	3.7	
A110100235121	G2X 235 E EB1H PC INOX	1578X145X101	2 X 35W	NORMAL - 1H EMERGENCY	4.4	
A110100249121	G2X 249 E EB1H PC INOX	1578X145X101	2 X 49W	NORMAL - 1H EMERGENCY	4.4	
A110100254121	G2X 254 E EB1H PC INOX	1282X145X101	2 X 54W	NORMAL - 1H EMERGENCY	3.7	
A110100128131	G2X 2-128 E EB3H PC INOX	1282X145X101	1 X 28W	NORMAL - 3H EMERGENCY	3.7	
A110100135131	G2X 2-135 E EB3H PC INOX	1578X145X101	1 X 35W	NORMAL - 3H EMERGENCY	4.4	
A110100149131	G2X 2-149 E EB3H PC INOX	1578X145X101	1 X 49W	NORMAL - 3H EMERGENCY	4.4	
A110100154131	G2X 2-154 E EB3H PC INOX	1282X145X101	1 X 54W	NORMAL - 3H EMERGENCY	3.7	
A110100180131	G2X 2-180 E EB3H PC INOX	1578X145X101	1 X 80W	NORMAL - 3H EMERGENCY	4.4	
A110100214131	G2X 214 E EB3H PC INOX	665X145X101	2 X 14W	NORMAL - 3H EMERGENCY	2.6	230V AC
A110100224131	G2X 224 E EB3H PC INOX	665X145X101	2 X 24W	NORMAL - 3H EMERGENCY	2.6	
A110100228131	G2X 228 E EB3H PC INOX	1282X145X101	2 X 28W	NORMAL - 3H EMERGENCY	3.7	
A110100235131	G2X 235 E EB3H PC INOX	1578X145X101	2 X 35W	NORMAL - 3H EMERGENCY	4.4	
A110100249131	G2X 249 E EB3H PC INOX	1578X145X101	2 X 49W	NORMAL - 3H EMERGENCY	4.4	
A110100254131	G2X 254 E EB3H PC INOX	1282X145X101	2 X 54W	NORMAL - 3H EMERGENCY	3.7	



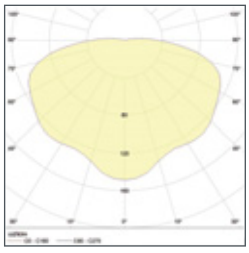
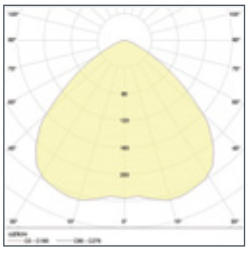
WELLGLASS

EV.. Series - H.I.D. well glass lighting fixture



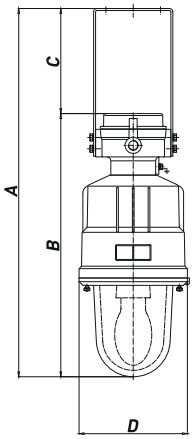
EV.. series well glass lighting fixtures are suitable for hazardous areas of industrial plants for lighting of indoor and outdoor structures, for which narrow or wide beam lighting is needed.
These luminaries have been designed to house built-in control gears for high intensity discharge lamps, mercury vapour, metal halide and high pressure sodium; light source can be driven where required by way of suitable reflectors.
EV.. H.I.D. luminaries, provided in a wide range of wattage, have an excellent corrosion resistance due to the body made of aluminium with low content of copper and tempered glass of lamp compartment.

TECHNICAL FEATURES

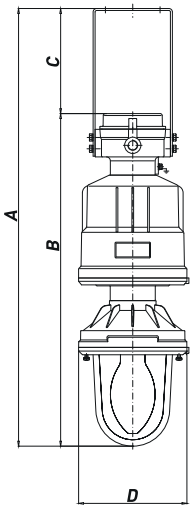
Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-52°C to +60°C
Approvals	Certified 01ATEX0019X, IECEx INE 15.0031X, TR CU (marking upon request, ordering code to be required)
Marking	**ATEX** II 2 GD Ex d IIC T(**) Gb — for all EV.. Ex de IIC T(**) Gb — for all Evde.. Ex tb IIIC T(**) Db IP66 ** T4/T135 °C ; T3/200°C **IEC-Ex** Ex db IIC T(**) Gb Ex db e IIC T(**) Gb Ex tb IIIC T(**) Db IP66
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 2 entries M25x1,5 (EVde and EVCC version)/N° 1 entry M25x1,5 (EVA version)/(plugs and cable glands excluded)
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Included
Ballast	Electromechanical ballast
Rated operation voltage (UE)	230 V (standard)/220 V, 240 V, 250 V, 277 V (upon request)
Frequency	50 Hz (standard)/60 Hz (upon request)
Accessories available upon request	Protection guard/Reflector/Pole mounting kit (EVde version)
Options upon request	**HOT INSTANT RESTRIKE solution available via twin-arc lamp assuring immediate hot instant restrike ignition with flux that will reach 80% of the nominal lamp flux in about 3 minutes. HOT INSTANT RESTRIKE solution also available via INSTANT RESTRIKE BALLAST, assuring immediate hot instant restrike ignition with 80% of the lamp nominal flux in 7 seconds. (for high pressure sodium version)**
Photometric light curves	EV..2/3/4 with REV reflector  EV..-4/5 with REVD reflector 

Dimensions EVde (H.I.D.)

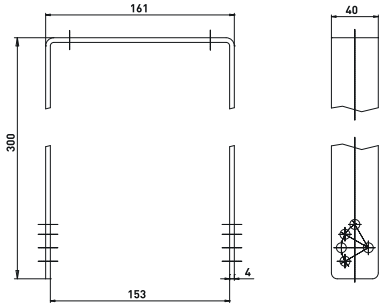
TAB. A-1



TAB. A-2

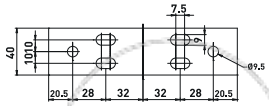


Bracket details



• Adjustable fixing facility

Bracket fixing details



EVde well glass lighting fixtures

EVde version, with integrated Ex e junction box, allows end users and contractors the possibility to save one junction box, two cable glands and a minimum of 30 minutes of labour during installation process.
This version is supplied complete with an adjustable AISI304 stainless steel mounting bracket suitable for ceiling, wall and suspension installation.

(NA) High pressure sodium

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]				DRAWING
					A	B	C	D	
EVDE-2/NA-B 50	A041121F01114	50**	6.00	T3*	680	466	214	162	TAB. A-1
EVDE-3/NA-B 50	A041131F01114	50	6.00	T3*	686	472	214	194	TAB. A-1
EVDE-2/NA-B 70	A041121H01114	70**	6.00	T3*	680	466	214	162	TAB. A-1
EVDE-3/NA-B 70	A041131H01114	70	7.40	T3*	686	472	214	194	TAB. A-1
EVDE-4/NA-B 100	A041141101114	100	7.60	T3*	748	533	214	220	TAB. A-1
EVDE-4/NA-B 150	A041141151114	150	8.40	T3*	748	533	214	220	TAB. A-1
EVDE-4/NA-B 250	A041141251114	250	15.00	T3	890	676	214	220	TAB. A-1
EVDE-5/NA-B 250	A041151251114	250	16.70	T3*	970	756	214	281	TAB. A-2
EVDE-5/NA-B 400	A041151401114	400	18.00	T3	970	756	214	281	TAB. A-2

* In case of maximum ambient temperature reaches +40°C and except for light/bulb oriented on top (topward), temperature class changes into T4 (ordering code to be required)
** Lamp with built-in glow discharge ignitor

(HG) Mercury vapour

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]				DRAWING
					A	B	C	D	
EVDE-2/HG-B 50	A042121F00114	50	6.00	T3*	680	466	214	162	TAB. A-1
EVDE-2/HG-B 80	A042121I00114	80	6.00	T3*	686	472	214	194	TAB. A-1
EVDE-3/HG-B 125	A0421311B0113	125	7.40	T3	686	472	214	194	TAB. A-1
EVDE-5/HG-B 250	A042151250114	250	15.70	T3	970	756	214	281	TAB. A-2
EVDE-5/HG-B 400	A042151400114	400	16.50	T3	970	756	214	281	TAB. A-2

*In case of maximum ambient temperature reaches +40°C and except for light/bulb oriented on top (topward), temperature class changes into T4 (ordering code to be required)
Notes:
- Below -20°C, the mercury vapour light can be used, providing they are switched on 24 hours a day
- Mercury vapour light bulb is not included (banned by the European Community)

(IM) Metal halide

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]				DRAWING
					A	B	C	D	
EVDE-3/IM-B 70	A043131H01114	70	6.00	T3*	686	472	214	194	TAB. A-1
EVDE-4/IM-B 100	A043141101114	100	6.00	T3*	748	533	214	220	TAB. A-1
EVDE-4/IM-B 150	A043141151114	150	7.40	T3*	748	533	214	220	TAB. A-1
EVDE-4/IM-B 250	A043141251114	250	14.80	T3	890	676	214	220	TAB. A-2
EVDE-5/IM-B 250	A043151251114	250	15.70	T3*	890	676	214	220	TAB. A-2
EVDE-5/IM-B 400	A043151401114	400	16.50	T3	970	756	214	281	TAB. A-2

*In case of maximum ambient temperature reaches +40°C and except for light/bulb oriented on top (topward), temperature class changes into T4 (ordering code to be required).
Below -20°c, the metal halide light can be used, providing they are switched on 24 hours a day

EVCC well glass lighting fixtures

EVCC version, without integrated Ex e junction box, allows standard ceiling installation.

(NA) High pressure sodium

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]		DRAWING
					A	B	
EVCC-2/NA-B 50	A041221F01114	50**	5.50	T3*	406	162	TAB. B
EVCC-3/NA-B 50	A041231F01114	50	6.90	T3*	411	194	TAB. B
EVCC-2/NA-B 70	A041221H01114	70**	5.50	T3*	406	162	TAB. B
EVCC-3/NA-B 70	A041231H01114	70	6.90	T3*	411	194	TAB. B
EVCC-4/NA-B 100	A041241101114	100	7.10	T3*	474	220	TAB. B
EVCC-4/NA-B 150	A041241151114	150	7.90	T3*	474	220	TAB. B

*In case of maximum ambient temperature reaches +40°C and except for light/bulb oriented on top (topward), temperature class changes into T4 (ordering code to be required)
** Lamp with built-in glow discharge ignitor

(HG) Mercury vapour

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]		DRAWING
					A	B	
EVCC-2/HG-B 50	A042221F00114	50	5.50	T3*	406	162	TAB. B
EVCC-2/HG-B 80	A042221I00114	80	5.50	T3*	406	162	TAB. B
EVCC-3/HG-B 125	A0422311B0114	125	6.90	T3	411	194	TAB. B

*In case of maximum ambient temperature reaches +40°C and except for light/bulb oriented on top (topward), temperature class changes into T4 (ordering code to be required)
Notes:
- Below -20°C, the mercury vapour light can be used, providing they are switched on 24 hours a day
- Mercury vapour light bulb is not included (banned by the European Community)

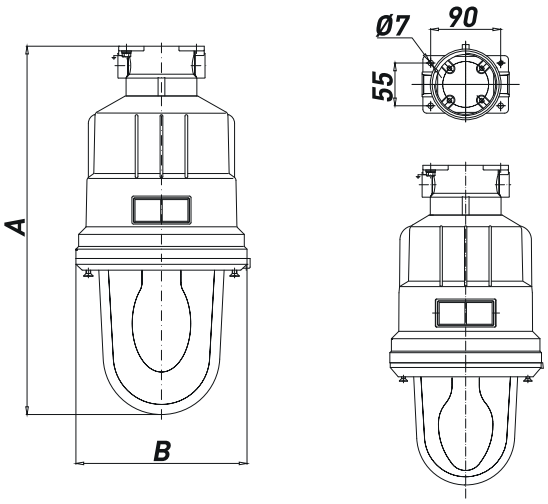
(IM) Metal halide

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]		DRAWING
					A	B	
EVCC-3/IM-B 70	A043231H01114	70	6.90	T3*	411	194	TAB. B
EVCC-4/IM-B 100	A043241101114	100	7.10	T3*	474	220	TAB. B
EVCC-4/IM-B 150	A043241151114	150	7.90	T3*	474	220	TAB. B

*In case of maximum ambient temperature reaches +40°C and except for light/bulb oriented on top (topward), temperature class changes into T4 (ordering code to be required)
Notes:
- Below -20°C, the metal halide light can be used, providing they are switched on 24 hours a day

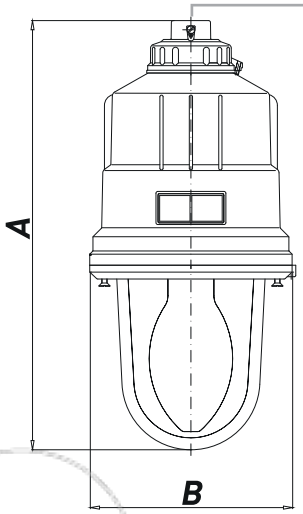
Dimensions EVCC (H.I.D.)

TAB. B



Dimensions EVA (H.I.D.)

TAB. C



- Entry M25x1,5 (3/4" NPT or UNI-6125 upon request)

EVA well glass lighting fixtures

EVA version, without integrated Ex e junction box, allows standard suspension installation by conduit system and pastoral pole.

(NA) High pressure sodium

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]		DRAWING
					A	B	
EVA-2/NA-B 50	A041321F01114	50**	5.50	T3*	400	162	TAB. C
EVA-3/NA-B 50	A041331F01114	50	6.90	T3*	404	194	TAB. C
EVA-2/NA-B 70	A041321H01114	70**	5.50	T3*	400	162	TAB. C
EVA-3/NA-B 70	A041331H01114	70	6.90	T3*	404	194	TAB. C
EVA-4/NA-B 100	A041341101114	100	7.10	T3*	467	220	TAB. C
EVA-4/NA-B 150	A041341151114	150	7.90	T3*	467	220	TAB. C

*In case of maximum ambient temperature reaches +40°C and except for light/bulb oriented on top (topward), temperature class changes into T4 (ordering code to be required)

** Lamp with built-in glow discharge ignitor

(HG) Mercury vapour

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]		DRAWING
					A	B	
EVA-2/HG-B 50	A042321F00114	50	5.50	T3*	400	162	TAB. C
EVA-2/HG-B 80	A042321I00114	80	5.50	T3*	400	162	TAB. C
EVA-3/HG-B 125	A0423311B0114	125	6.90	T3	404	194	TAB. C

*In case of maximum ambient temperature reaches +40°C and except for light/bulb oriented on top (topward), temperature class changes into T4 (ordering code to be required)

Notes:

- Below -20°C, the mercury vapour light can be used, providing they are switched on 24 hours a day
- Mercury vapour light bulb is not included (banned by the European Community)

(IM) Metal halide

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]		DRAWING
					A	B	
EVA-3/IM-B 70	A043331H01114	70	6.90	T3*	404	194	TAB. C
EVA-4/IM-B 100	A043341101114	100	7.10	T3*	467	220	TAB. C
EVA-4/IM-B 150	A043341151114	150	7.90	T3*	467	220	TAB. C

*In case of maximum ambient temperature reaches +40°C and except for light/bulb oriented on top (topward), temperature class changes into T4 (ordering code to be required)

Notes:

- Below -20°C, the metal halide light can be used, providing they are switched on 24 hours a day

WELLGLASS

EV.. Series Lighting fixtures for fluorescent compact/halogen lamps - Copper free aluminium

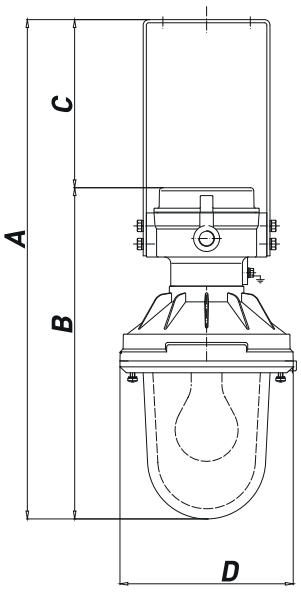


EV.. series well glass lighting fixtures are suitable for hazardous areas of industrial plants for lighting of indoor and outdoor structures, for which narrow or wide beam lighting is needed.
These luminaries have been designed to house energy saving lamps; light source can be driven where required by way of suitable reflectors.
EV.. luminaries, provided in a wide range of wattage, have an excellent corrosion resistance due to the body made of aluminium with low content of copper and tempered glass of lamp compartment.

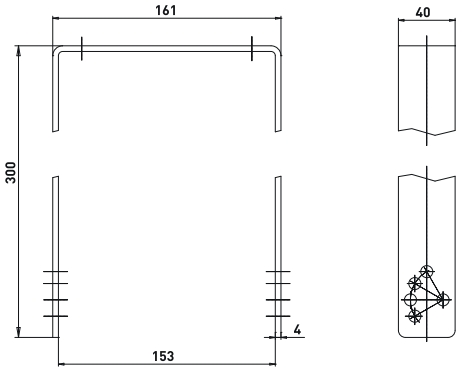
TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-52°C to +60°C
Approvals	Certified 01ATEX0019X (standard) IECEx INE 15.0031X CoC TR CU 012/2011 (marking upon request, ordering code to be required)
Marking	II 2 GD Ex d IIC T(**) Gb for all EV.. Ex de IIC T(**) Gb for all EVde.. Ex tb IIIC T(**) Db IP66 ** T5/T100°C, T4/T135°C, T3/200°C
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 2 entries M25x1,5 (EVde and EVCC version) N° 1 entry M25x1,5 (EVA version) (plugs and cable glands excluded)
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Included
Rated operation voltage (UE)	HALOGEN LAMPS 230V (standard) 220V, 240V (upon request) FLUORESCENT LAMPS 220/240V
Frequency	50/60 Hz
Accessories available upon request	Protection guard Reflector Pole mounting kit (EVde version)

Dimensions EVde

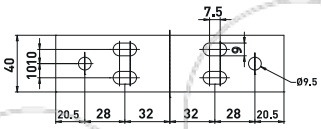


Bracket details



- Adjustable fixing bracket

Bracket fixing details



EVde well glass lighting fixtures

EVde version, with integrated Ex e junction box, allows end users and contractors the possibility to save one junction box, two cable glands and a minimum of 30 minutes of labour during installation process.
This version is supplied complete with an adjustable AISI304 stainless steel mounting bracket suitable for ceiling, wall and suspension installation.

(HA) Halogen – Energy saving

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]			
					A	B	C	D
EVDE-1/HA 42	A044111E2171D	42 (OLD 60W INC.)	2.90	T4*	505	291	214	146
EVDE-2/HA 42	A044121E21714	42 (OLD 60W INC.)	3.10	T3**	550	336	214	163
EVDE-2/HA 70	A044121H01714	70 (OLD 100W INC.)	3.10	T3**	550	336	214	163
EVDE-2/HA 105	A0441211A1714	105 (OLD 150W INC.)	3.10	T3**	550	336	214	163
EVDE-3/HA 105	A0441311A1714	105 (OLD 150W INC.)	4.40	T3**	584	370	214	194
EVDE-4/HA 140	A04414114171D	140 (OLD 200W INC.)	7.00	T4	635	421	214	220
EVDE-5/HA 200	A044151201714	200	9.00	T3***	715	501	214	281

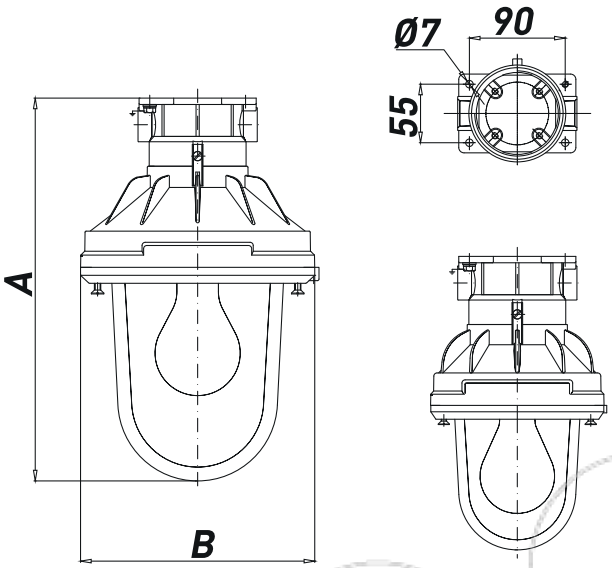
*In case of maximum ambient temperature reaches +40°C , temperature class changes into T5 (ordering code to be required)
**In case of maximum ambient temperature reaches +55°C , temperature class changes into T4 (ordering code to be required)
***In case of maximum ambient temperature reaches +40°C , temperature class changes into T4 (ordering code to be required)

(FC) Fluorescent compact – Energy saving long life (8000h)

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]			
					A	B	C	D
EVDE-2/FC 26	A045121C6171D	26	3.10	T4*	550	336	214	163
EVDE-3/FC 45	A045131E5171D	45 (OLD 200W INC.)	4.40	T4*	584	370	214	194
EVDE-4/FC 45	A045141E5171D	45 (OLD 200W INC.)	7.00	T4**	635	421	214	220
EVDE-5/FC 45	A045151E5171D	45 (OLD 200W INC.)	9.00	T4**	715	501	214	281

*In case of maximum ambient temperature reaches +40°C , temperature class changes into T5 (ordering code to be required)
**In case of maximum ambient temperature reaches +40°C , temperature class changes into T6 (ordering code to be required)
In case of maximum ambient temperature reaches +55°C , temperature class changes into T5 (ordering code to be required)
Notes:
- Below -20°C, the fluorescent compact light can be used, providing they are switched on 24 hours a day

Dimensions EVCC



EVCC well glass lighting fixtures

EVCC version, without integrated Ex e junction box, allows standard ceiling installation.

(HA) Halogen – Energy saving

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]	
					A	B
EVCC-1/HA 42	A044211E2171D	42 (OLD 60W INC.)	2.40	T4*	230	146
EVCC-2/HA 42	A044221E21714	42 (OLD 60W INC.)	2.60	T3**	276	162
EVCC-2/HA 70	A044221H01714	70 (OLD 100W INC.)	2.60	T3**	276	162
EVCC-2/HA 105	A0442211A1714	105 (OLD 150W INC.)	2.60	T3**	276	162
EVCC-3/HA 105	A0442311A1714	105 (OLD 150W INC.)	3.90	T3**	309	194
EVCC-4/HA 140	A04424114171D	140 (OLD 200W INC.)	6.50	T4	360	220
EVCC-5/HA 200	A044251201714	200	8.50	T3***	440	281

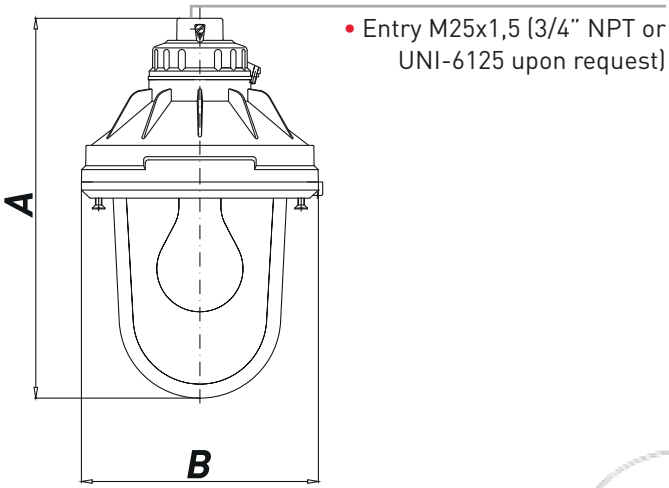
*In case of maximum ambient temperature reaches +40°C , temperature class changes into T5 (ordering code to be required)
**In case of maximum ambient temperature reaches +55°C , temperature class changes into T4 (ordering code to be required)
***In case of maximum ambient temperature reaches +40°C , temperature class changes into T4 (ordering code to be required)

(FC) Fluorescent compact – Energy saving long life (8000h)

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]	
					A	B
EVCC-2/FC 26	A045221C6171D	26	2.60	T4*	276	162
EVCC-3/FC 45	A045231E5171D	45 (OLD 200W INC.)	3.90	T4*	309	194
EVCC-4/FC 45	A045241E5171D	45 (OLD 200W INC.)	6.50	T4**	360	220
EVCC-5/FC 45	A045251E5171D	45 (OLD 200W INC.)	8.50	T4**	440	281

*In case of maximum ambient temperature reaches +40°C , temperature class changes into T5 (ordering code to be required)
**In case of maximum ambient temperature reaches +40°C , temperature class changes into T6 (ordering code to be required)
In case of maximum ambient temperature reaches +55°C , temperature class changes into T5 (ordering code to be required)
Notes:
- Below -20°C, the fluorescent compact light can be used, providing they are switched on 24 hours a day

Dimensions EVA



• Entry M25x1,5 (3/4" NPT or UNI-6125 upon request)

EVA well glass lighting fixtures

EVA version, without integrated Ex e junction box, allows standard suspension installation by conduit system and pastoral pole.

(HA) Halogen – Energy saving

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]	
					A	B
EVA-1/HA 42	A044311E2171D	42 (OLD 60W INC.)	2.40	T4*	230	146
EVA-2/HA 42	A044321E21714	42 (OLD 60W INC.)	2.60	T3**	276	162
EVA-2/HA 70	A044321H01714	70 (OLD 100W INC.)	2.60	T3**	276	162
EVA-2/HA 105	A0443211A1714	105 (OLD 150W INC.)	2.60	T3**	276	162
EVA-3/HA 105	A0443311A1714	105 (OLD 150W INC.)	3.90	T3**	309	194
EVA-4/HA 140	A04434114171D	140 (OLD 200W INC.)	6.50	T4	360	220
EVA-5/HA 200	A044351201714	200	8.50	T3***	440	281

*In case of maximum ambient temperature reaches +40°C , temperature class changes into T5 (ordering code to be required)
**In case of maximum ambient temperature reaches +55°C , temperature class changes into T4 (ordering code to be required)
***In case of maximum ambient temperature reaches +40°C , temperature class changes into T4 (ordering code to be required)

(FC) Fluorescent compact – Energy saving long life (8000h)

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]	
					A	B
EVA-2/FC 26	A045321C6171D	26	2.60	T4*	276	162
EVA-3/FC 45	A045331E5171D	45 (OLD 200W INC.)	3.90	T4*	309	194
EVA-4/FC 45	A045341E5171D	45 (OLD 200W INC.)	6.50	T4**	360	220
EVA-5/FC 45	A045351E5171D	45 (OLD 200W INC.)	8.50	T4**	440	281

*In case of maximum ambient temperature reaches +40°C , temperature class changes into T5 (ordering code to be required)
**In case of maximum ambient temperature reaches +40°C , temperature class changes into T6 (ordering code to be required)
In case of maximum ambient temperature reaches +55°C , temperature class changes into T5 (ordering code to be required)
Notes:
- Below -20°C, the fluorescent compact light can be used, providing they are switched on 24 hours a day

WELLGLASS

EV.. Series - Hand lamps for incandescent lamps - Copper free aluminium

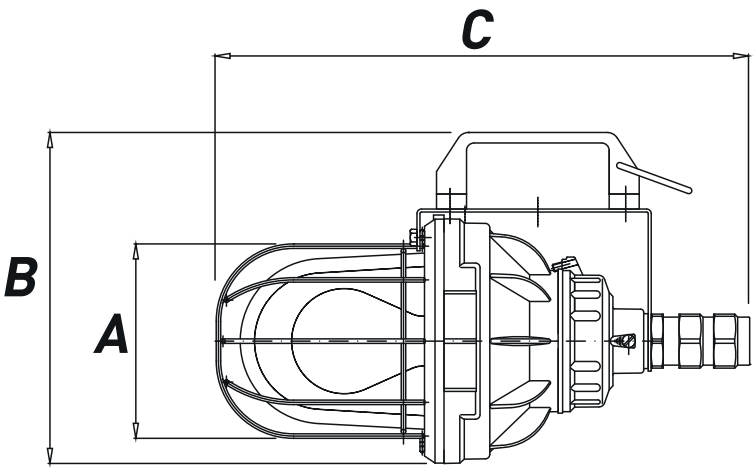


Portable lights with insulated handle and protection guard made of aluminium with low content of copper.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-52°C to +60°C
Approvals	Certified 01ATEX0019X (standard) IECEx INE 15.0031X TR CU (marking upon request, ordering code to be required)
Marking	II 2 GD Ex d IIC T(**) Gb Ex tb IIIC T(**) Db IP66 ** T4/135°C, T3/200°C
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 1 entry M25x1,5 complete with brass nickel chrome plated cable gland PAP type
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Included
Rated operation voltage (UE)	230V (standard) 220V, 240V (marking upon request)
Frequency	50/60 Hz
Accessories included	Protection guard Brass nickel chrome plated cable gland PAP type complete with set of inner and outer seals

Dimensions EVA



EV.. Portable lights

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]		
					A	B	C
EVA-1/HA 42 (EVP 60)	A044311E21714	42	2.90	T4*	123	212	312

*In case of maximum ambient temperature reaches +40°C , temperature class changes into T5 (ordering code to be required)

WELLGLASS
EVCC-PR Series - Tank lighting fixtures - Copper free aluminium

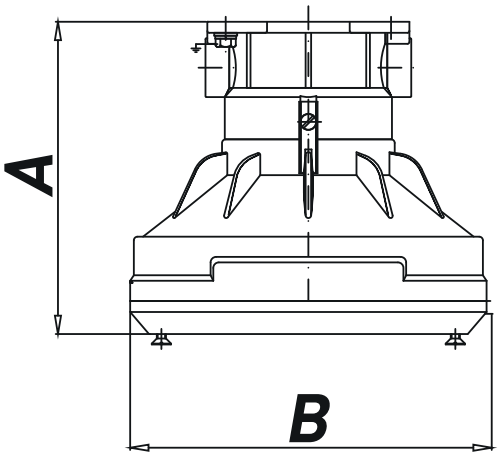


Tank inspection lights suitable for ON-SHORE and OFF-SHORE application by suitable painting cycle (upon request).

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-52°C to +60°C
Approvals	Certified 01ATEX0019X (standard) IECEx INE 15.0031X TR CU (marking upon request, ordering code to be required)
Marking	II 2 GD Ex d IIC T3 Gb Ex tb IIIC T200°C Db IP66
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 2 entries M25x1,5 (plugs and cable glands excluded)
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Included
Rated operation voltage (UE)	230V (standard) 220V, 240V (marking upon request)
Frequency	50/60 Hz
Accessories available upon request	Fixing flange for porthole

Dimensions EVCC-PR



(EVCC-PR) Tank inspection lights

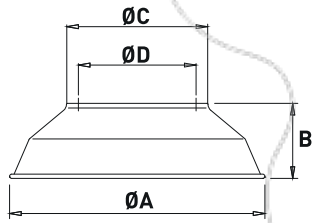
TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]	
					A	B
EVCC-PR2/HA 42	A044621E2171D	42	3.10	T4	153	165
EVCC-PR3/HA 53	A044631F3171D	53	4.40	T4	170	195

SPARES & ACCESSORIES

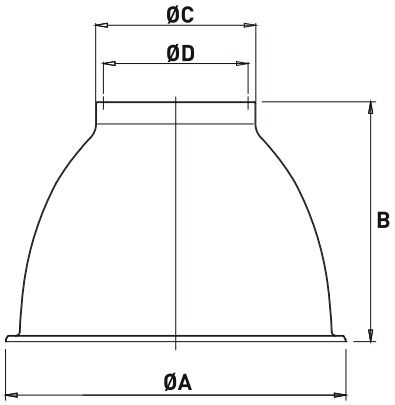
Reflectors

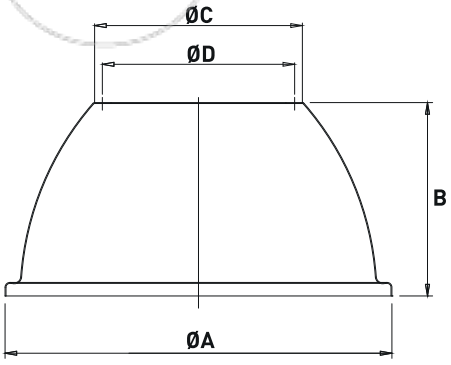
CODE	TYPE	DIMENSIONS (mm)				WEIGHT [Kg]
		A	B	C	D	
A0A0400007000	REV-1 STANDARD REFLECTOR FOR EV..-1 RAL9003 PAINTED	330	97	183	123	0,260
A0A0400008000	REV-2 STANDARD REFLECTOR FOR EV..-2 RAL9003 PAINTED	330	97	183	138	0,260
A0A0400009000	REV-3 STANDARD REFLECTOR FOR EV..-3 RAL9003 PAINTED	330	97	183	160	0,260
A0A0400010000	REV-4 STANDARD REFLECTOR FOR EV..-4 RAL9003 PAINTED	400	90	263	188	0,360
A0A0400011000	REVD-4 POLISHED AND ANODIZED DOME REFLECTOR FOR EV..-4	440	310	207	188	0,800
A0A0400043000	REVD-5 POLISHED AND ANODIZED DOME REFLECTOR FOR EV..-5	500	250	271	252	0,800

Dimensions REV



Dimensions REVD

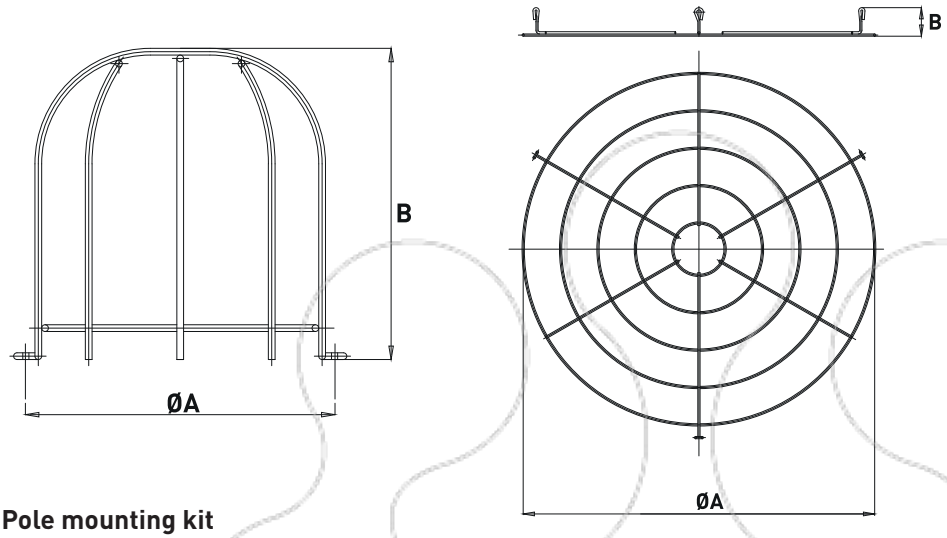




Protection guard (Stainless Steel AISI316 L version available upon request)

CODE	TYPE	DIMENSIONS AxB (mm)	WEIGHT [Kg]
A0A0400017000	GEV-1 PROTECTION GUARD FOR EV..-1 - AISI 304	123X103	0.160
A0A0400018000	GEV-2 PROTECTION GUARD FOR EV..-2 - AISI 304	138X139	0.230
A0A0400046000	GEV-3 PROTECTION GUARD FOR EV..-3 - AISI 304	151X152	0.240
A0A0400016000	GEV-4 PROTECTION GUARD FOR EV..-4 - AISI 304	178X200	0.370
A0A0400047000	GEV-5 PROTECTION GUARD FOR EV..-5 - AISI 304	252X233	0.400
A0A0400044000	GEV-5-P PROTECTION GUARD FOR EV..-5 C/W REVD - AISI 304	470 X38	0.310

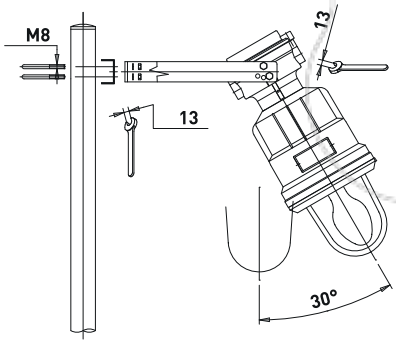
Dimensions GEV



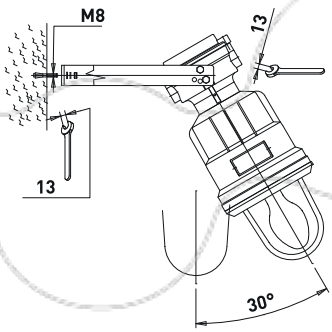
Pole mounting kit

CODE	TYPE
A0A0400001000	P4 KIT - 1" 1/2 POLE MOUNTING KIT
A0A0400002000	P5 KIT - 2" POLE MOUNTING KIT

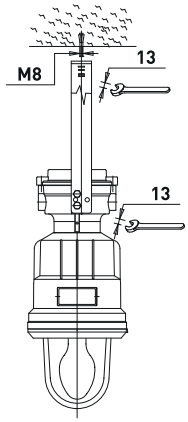
Pole mounting



Wall mounting



Ceiling mounting



Note: Pole mounting kit to be ordered separately and as additional accessories out of the standard adjustable stainless steel fixing bracket. Expansion bolts (for concrete) or bolts (for steel frame) are not included in our kit.

LED LIGHTING

EV LED.. Series - Spotlight - Copper free aluminium

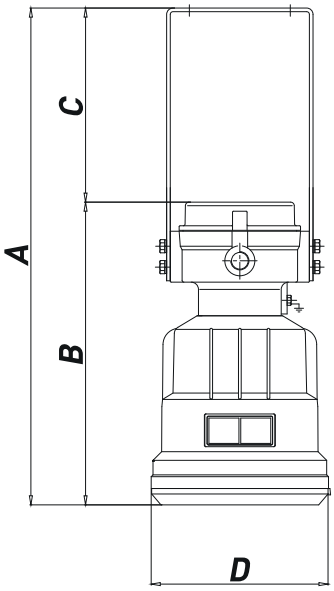


Spot lights are used where an high illumination is required, without causing neither dazzling nor light pollution.
Due to LED technology, these luminaires are especially resistant to shock or vibration and free from infrared and ultraviolet wavelengths.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-52°C to +60°C
Approvals	Certified 01ATEX0019X (standard) IECEx INE 15.0031X CoC TR CU 012/2011 (marking upon request, ordering code to be required)
Marking	II 2 GD Ex de IIC T(**) Gb Ex tb IIIC T(**) Db IP66 ** T5/T100°C, T4/T135°C
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 2 entries M25x1,5 (plugs and cable glands excluded)
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Included
Rated operation voltage (UE)	115/240V, 24Vdc
Frequency	50/60 Hz

Dimensions LED EV



LED EV.. Spot lights

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]				VOLTAGE
					A	B	C	D	
EVDE-3/LED 18	A04713118181D	18	6.00	T4*	547	333	214	195	115/240V 50/60HZ
EVDE-3/LED 18	A04713118191D	18	6.00	T4*	547	333	214	195	24VDC

* In case of maximum ambient temperature reaches +40°C, temperature class changes into T5 (ordering code to be required)

LED LIGHTING

EVCC-PR LED Series - Tank lighting fixtures - Copper free aluminium

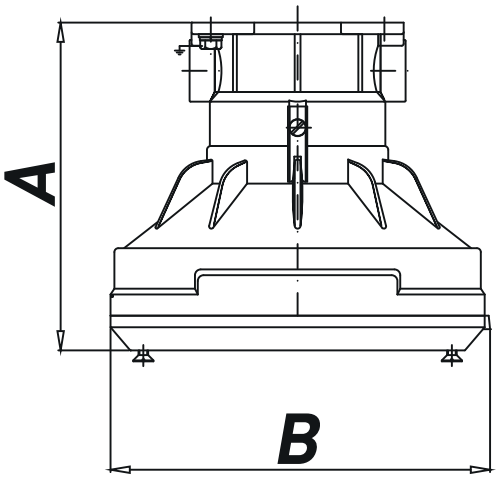


Tank inspection lights suitable for ON-SHORE and OFF-SHORE application by suitable painting cycle (upon request); LED version.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-52°C to +60°C
Approvals	Certified 01ATEX0019X (standard) TR CU (marking upon request, ordering code to be required) IECEx INE 15.0031X
Marking	II 2 GD Ex d IIC T3 Gb Ex tb IIIC T200°C Db IP66
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 2 entries M25x1,5 (plugs and cable glands excluded)
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Included
Rated operation voltage (UE)	230 V
Frequency	50/60 Hz
Accessories available upon request	Fixing flange for porthole

Dimensions LED EVCC



LED EVCC-PR tank inspection lights

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	DIMENSIONS [mm]	
					A	B
EVCC-PR3/LED 7	A047631071G14	7	4.40	T3	170	195

LED LIGHTING

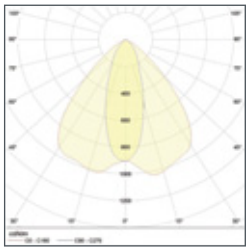
FL-LED.. Series - Floodlight - Copper free aluminium



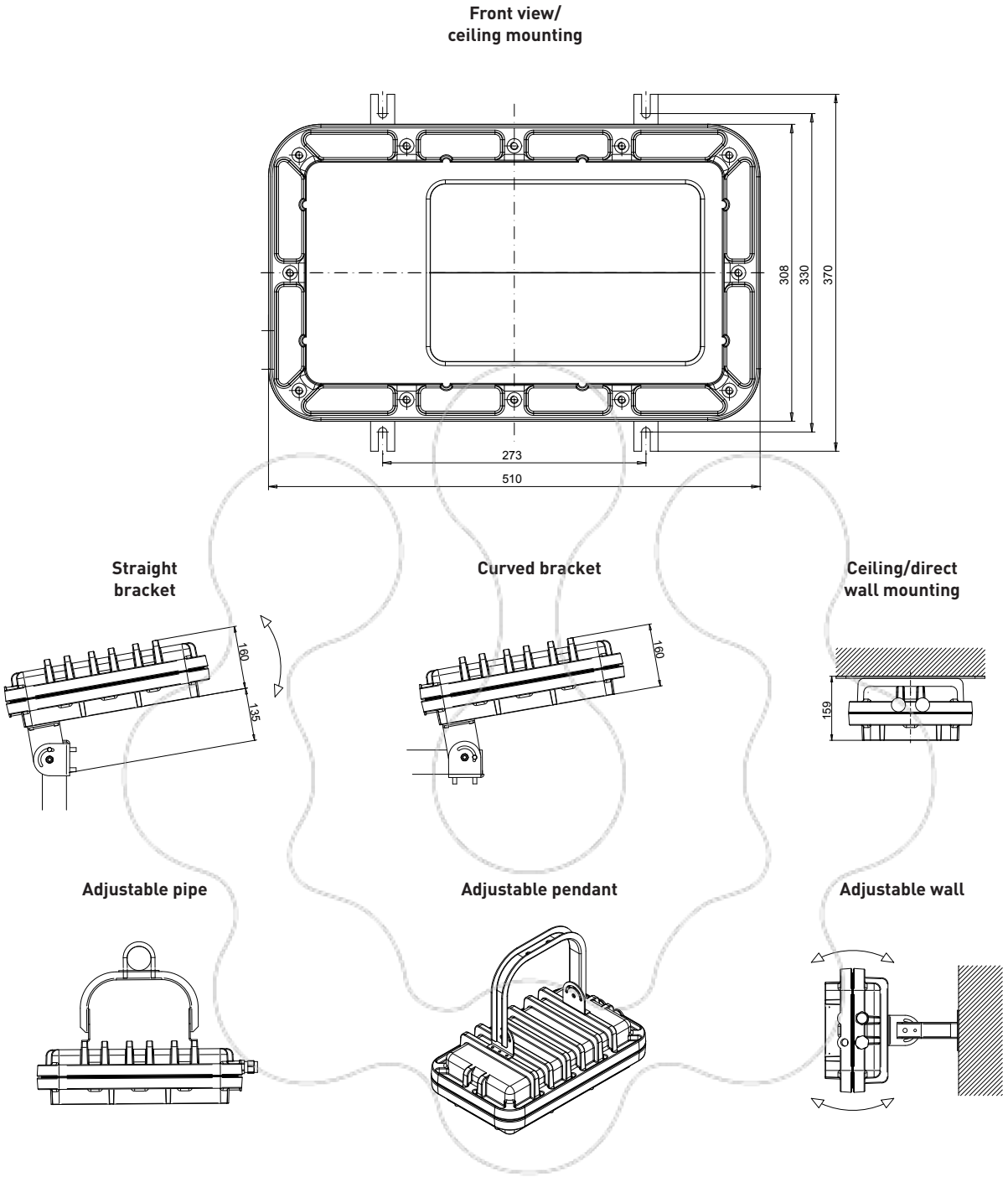
LED FL.. floodlighs have been design for street and sidewalk lighting.

Due to the body made of aluminium with low content of copper and tempered glass, these floodlights have an excellent corrosion resistance.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-50°C to +55°C
Approvals	Certified 00ATEX0023X (standard)/Certified 01ATEX0059 (battery pack) IECEx INE 16.0038X TR CU (marking upon request, ordering code to be required)
Marking	Standard: II 2 GD Ex d IIB+H2 T6 Gb Ex tb IIIC T85°C Db IP66 Battery pack: II 2 GD Ex d IIC T6 Gb Ex tb IIIC T85°C Db IP66
Gaskets	Gasket made of Nitrile Rubber (NBR) on flat joint
Entries	Suitable for LOOP-IN LOOP-OUT UP TO 4mm^2
Hardware and screws	AISI 316 L Stainless steel external hardware and screws
Lamps	Included
Rated operation voltage (UE)	110V/264V (standard version) 220V/240V (emergency version)
Frequency	50/60Hz
Accessories	Ceiling mounting : N° 1 brass nickel chrome plated plug + N° 1 brass nickel chrome plated cable gland PNA type c/w set of inner seals Pole mounting : N°1 brass nickel chrome plated cable gland PNA type c/w set of inner seals Adjustable mounting bracket: : N°1 brass nickel chrome plated cable gland PNA type c/w set of inner seals Upon request: protection guard
Operating principles	FL.. floodlight for emergency service : 180 minutes; with constant flux 650 lm (other emergency duration available upon request)
Photometric light curves	

Dimension FL –LED – Standard version 10W/30W/60W/95W



LED FL.. Floodlights - Standard version (Ceiling/Direct wall mounting)

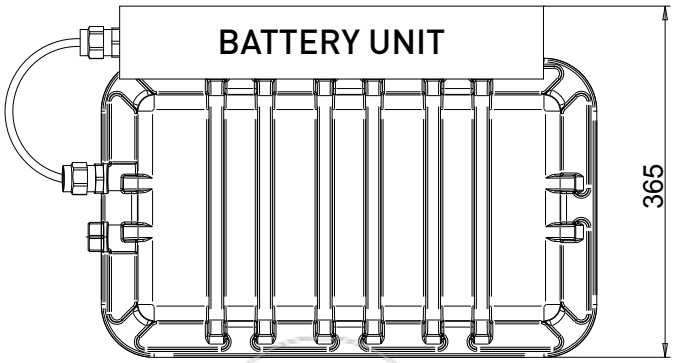
TYPE	CODE	LAMP [W]	VOLTAGE	FREQUENCY	AMBIENT TEMPERATURE
FL-LED 30	A010195021112	95W	110/264V	50/60HZ	(-50°C;+55°C)
FL-LED 30	A010160021112	60W	110/264V	50/60HZ	(-50°C;+55°C)
FL-LED 30	A010130021112	30W	110/264V	50/60HZ	(-50°C;+55°C)
FL-LED 30	A010110021112	10W	110/264V	50/60HZ	(-50°C;+55°C)

LED FL.. Coventional efficiency comparison table

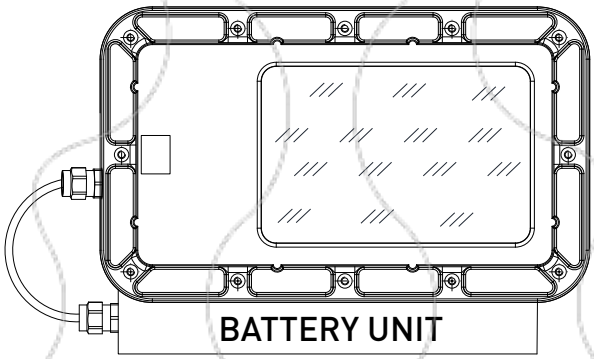
LED ->	FLUORESCENT ->	HID
FL-LED 30 W	2X18 W	50 W HPSV/80W HPMV
FL-LED 60 W	2X36 W	100 W HPSV/125 HPMV
FL-LED 95 W	2X58 W	150 W HPSV/250 HPMV

Dimension FL..LED – Emergency version

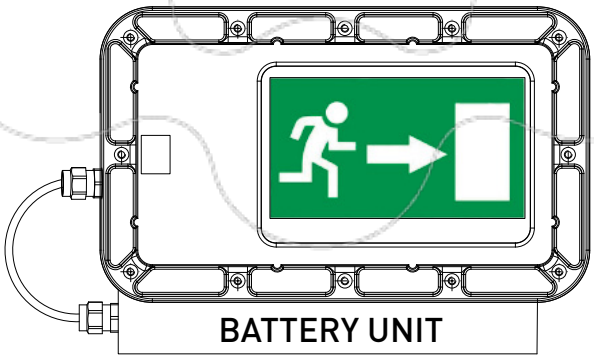
Top view



Front view



EXIT version



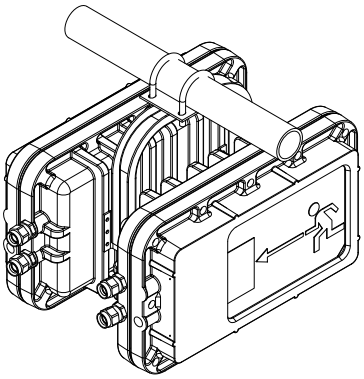
LED FL.. Floodlights – Emergency version/3 hours duration with 650 lm output in emergency

TYPE	CODE	LAMP [W]	VOLTAGE	FREQUENCY	AMBIENT TEMPERATURE
FL-LED 30	A010295111122	95W	220/240V	50/60HZ	(-50°C;+55°C)
FL-LED 30	A010260111122	60W	220/240V	50/60HZ	(-50°C;+55°C)
FL-LED 30	A010230111122	30W	220/240V	50/60HZ	(-50°C;+55°C)
FL-LED 30	A010210111122	10W	220/240V	50/60HZ	(-50°C;+55°C)
FL-LED 30 (DOUBLE SIDE)	A010410111122	2X10W	220/240V	50/60HZ	(-50°C;+55°C)

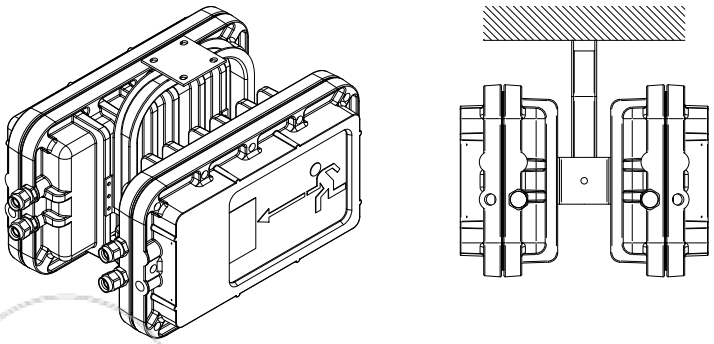
Note: 1300 lm available in emergency condition (upon request)

FL-LED 30 (double side for emergency exit application)

Pipe/pendant mounting

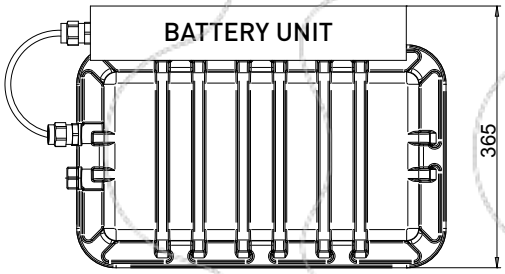


Ceiling mounting

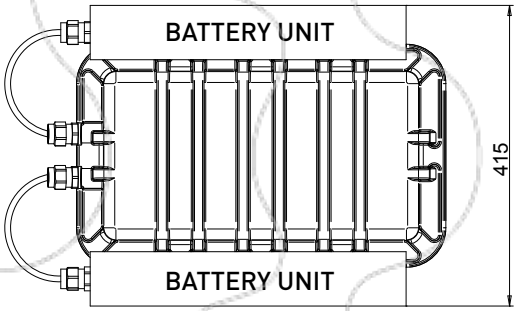


Top view of the emergency floodlight version

650lm/EMERGENCY



1300lm/EMERGENCY



LED LIGHTING
G2X LED Series - Zones 2 & 22

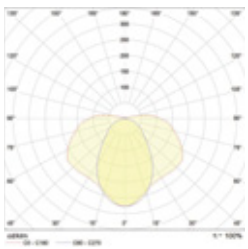


Luminaires G2X LED are suited for hazardous areas of industrial plants and space included in Zone 2 and 22.

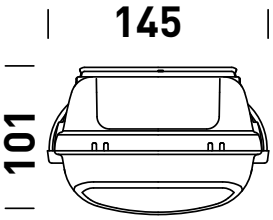
The advantages of this luminaires series:
- Simple, easy and quick installation
- High resistance to corrosive industrial environment
- High luminous efficiency
- Quality ignition systems
- UV resistant.
- Easy maintenance
- A high-quality LED source with high colour rendering

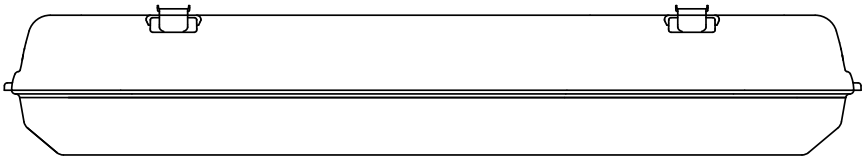
TECHNICAL FEATURES

Material	GRP + 2 gear tray holders in white lacquered steel plate Transparent diffuser in PC with UV protection
IP rating	IP66
Ambient temperature range	From -20°C TO +40°C
Approvals	OBAC 15 CZ/ATEX 163X
Marking	II 3 G Ex nA IIC T6 Gc II 3 D Ex tc IIIC T85°C Dc IP66
Standards	EN 60079-0, EN 60079-15, EN 60079-31
Zones	Zone 2 , 22
Gaskets	Gasket in polyurethane (to obtain IP66 rating)
Entries	N° 1 passing entry M20
Hardware and screws	Fixing springs and closing clips in stainless steel
Lamps	LED lamps
Rated operation voltage (UE)	230V AC/DC (normal service); 230V AC (emergency service); 110V according to execution
Frequency	50-60Hz in AC
Accessories upon request	Polyamide ATEX cable gland M20x1,5
Maximum number of terminals	3x2,5mm^2
Colour	GRP housing in graphite (RAL 7035)
Options	Emergency kit 3h, Black GRP housing RAL9011, Yellow GRP housing RAL1003



Dimensions G2X LED





CODE	DESCRIPTION	DIMENSIONS [MM]	POWER (W)	SERVICE	WEIGHT (Kg)	POWER SUPPLY
A11020021W111	G2X LED 600 PC INOX	665 X 145 X 101	22W	NORMAL	2	230V AC/DC
A11020044W111	G2X LED 1200 PC INOX	1282 X 145 X 101	40W	NORMAL	3,25	
A11020056W111	G2X LED 1500 PC INOX	1578 X 145 X 101	45W	NORMAL	3,6	
A11020044W131	G2X LED EB 1200 PC INOX	1282 X 145 X 101	40W	NORMAL - 3H EMERGENCY	3,45	230V AC
A11020056W131	G2X LED EB 1500 PC INOX	1578 X 145 X 101	45W	NORMAL - 3H EMERGENCY	3,8	

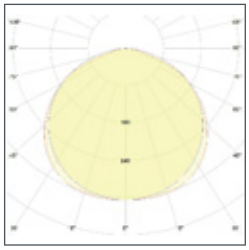
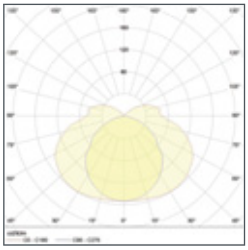
LED LIGHTING

EVF-P LED.. Series - Zones 1, 2, 21 & 22 - End-cups in Copper free aluminium

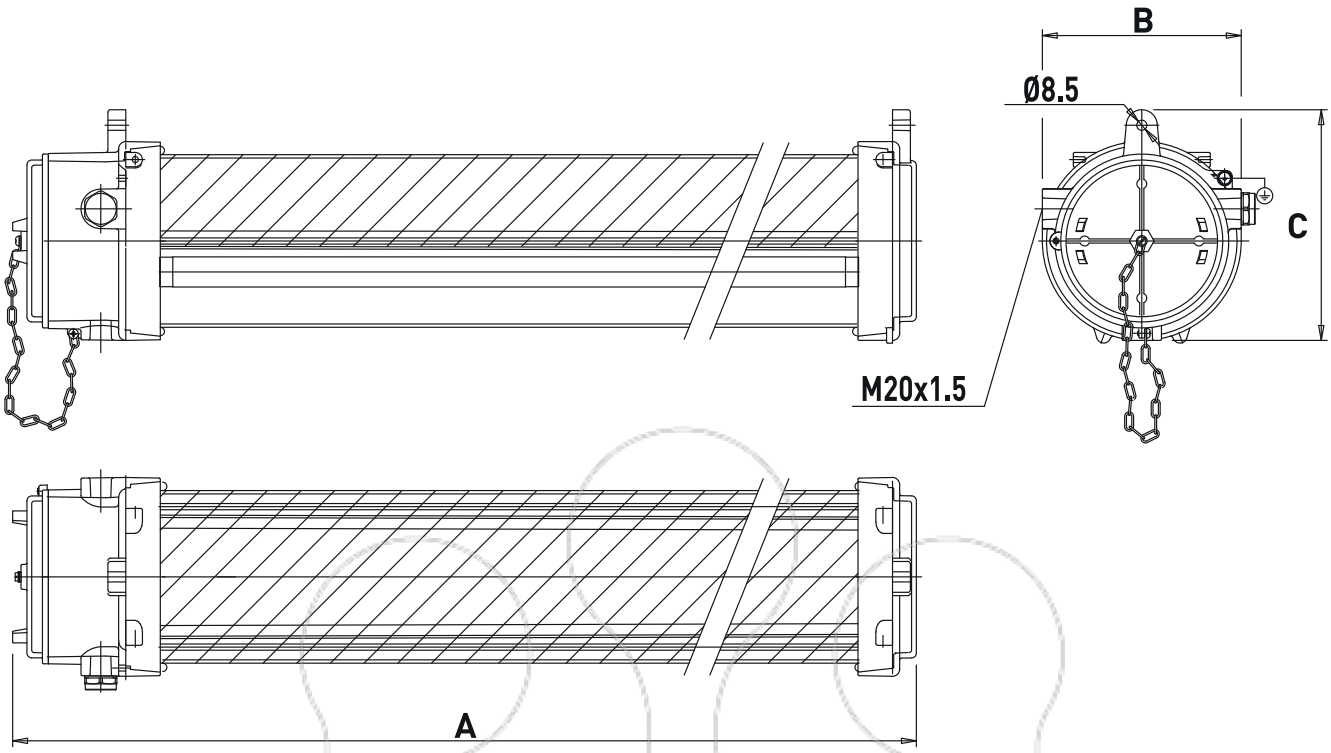


EVF-P lighting fixtures are manufactured with an high resistance cylindrical polycarbonate lamp housing and with end cups made of corrosion resistant copper free aluminium.
Polycarbonate lamp housing is a three layers-extrusion UV resistant able to grant the best protection against sun rays and related yellowing effect.
Circular shape grants the best possible "CX" factor, therefore it is less affected by wind-dusts, no flat surfaces to avoid pollution and dirty bunching.
Components and design make EVF-P lighting fixtures suitable for high corrosion environments.
To increase further surface protection, upon request it is possible to apply an OFF-SHORE painting cycle suitable for marine environments.
All lighting fixtures are supplied ready for LOOP IN-LOOP OUT facility with 4sqmm cable.

TECHNICAL FEATURES

Material	End cups in aluminium with low content of copper/Light housing in polycarbonate
IP/IK rating	IP66/IK10 according to EN 62262:2002
Ambient temperature range	-20°C to + 55°C (Normal service) -20°C to + 40°C (Emergency service)
Approvals	TÜV CY 17 ATEX 0205846 X
Marking	II 2 GD Ex eb mb op is IIC T4 Gb (normal service) Ex eb db mb op is IIC T4 Gb (emergency service) Ex tb IIIC T135°C Db IP66
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	End cups painted by green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 2 entries M20x1,5. One plugged-off by Ex d brass nickel chrome plated plug and relevant gasket.
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Extended long life new LED technology with CRI > 85
Ballast	Electronic
Rated operation voltage (UE)	220-240Vac (normal and emergency service) 198-278Vdc (normal service)
Frequency	0/50 – 60 Hz
Power factor	> 0,95
Accessories available upon request	AISI304 Pole mounting kit/AISI304 Ceiling/Wall mounting kit/AISI304 Suspension mounting kit/3° bottom entry M20x1,5/AISI304 protection guard/Mounting kit in stainless steel AISI316
Photometric light curves	1 strip  2 strips 

Dimensions EVF-P



LED EVF-P.. Series for normal service

TYPE	CODE	LAMP [W]	DIMENSIONS [mm]			WEIGHT [Kg]
			A	B	C	
EVF-P 116	A030311160011	16	764	176	194	
EVF-P 216	A030312160011	2 X 16	764	176	194	
EVF-P 132	A030311320011	32	1374	176	194	
EVF-P 232	A030312320011	2 X 32	1374	176	194	

LED EVF-P.. Series for 90' emergency service

TYPE	CODE	LAMP [W]	DIMENSIONS [mm]			WEIGHT [Kg]
			A	B	C	
EVF-P 132 LE P 90	A030321320111*	32	1374	176	194	
EVF-P 232 LE P 90	A030322320111*	2 X 32	1374	176	194	
EVF-P 116 LE NP 90	A030321161111	16	764	176	194	
EVF-P 132 LE NP 90	A030321321111*	32	1374	176	194	

* 180' emergency version available upon request

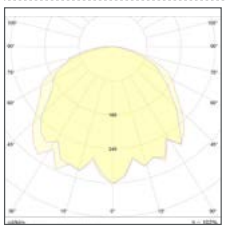
LED LIGHTING

EVF-L.. Series - Tubular GRP led lighting



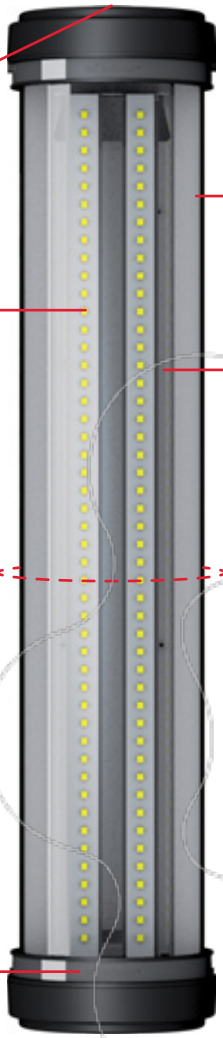
- EVF-L lighting fixtures are manufactured with a high resistance cylindrical polycarbonate lamp housing and with end cups made of corrosion resistant and high mechanical resistance GRP
- Polycarbonate lamp housing is a three layers-extrusion UV resistant able to grant the best protection against sun rays and related yellowing effect.
- Circular shape grants the best possible "CX" factor, therefore it is less affected by winddusts, no flat surfaces to avoid pollution and dirty bunching.
- Components and design make EVF-L lighting fixtures suitable for high corrosion environments.
- All lighting fixtures are supplied ready for LOOP IN-LOOP OUT facility.

TECHNICAL FEATURES

Material	- Transparent polycarbonate envelope UV protected - GRP flanges - Stainless steel fastening collar - White lacquered steel plate for increased reflectivity - Stainless steel screws
IP, IK rating	IP66/IP 69K - IK 10
Ambient temperature range	-20 °C to + 60 °C
Approval	ATEX LCIE 17 ATEX 3035 X
ATEX markings	II 2 G Ex db eb mb IIC T6 to T4 Gb (temp. class depend on electrical equipment and position) II 2 D Ex tb IIIC T80 °C to T130 °C Db Standards compliance IEC/EN 60079-0, 60079-7, 60079-18 and 60079-31
ATEX zones	Gas and Dust: zones 1&2, 21 & 22
Cable entries	PNCX connector for cable diameters 7 to 14 mm. On request: - 1 polyamide cable gland and 1 plug M20 for cable diameters 7 to 14 mm - 1 polyamide cable gland and 1 plug M25 for cable diameters 10 to 18 mm - Metal cable gland for armoured or unarmoured cable - Loop In/Loop Out - Through wiring - + 2 PNCX loop In/loop Out
LED photometric characteristics	
Flux	2800 - 5600 lm
Color temperature	7000° K
CRI Colour Rendering Index	>80
Efficiency	98 to 100 lm/W
Electrical specifications	
Voltage	220-240 Vac (normal and emergency service)/198-278 Vdc (normal service)
Frequency	0/50-60 Hz
Power factor	0.93 to 0.98
Automatic emergency version	Emergency LED lighting 90 minutes
Accessories available upon request	Automatic switch-off of the light and battery when opening Stainless steel pole mounting kit Stainless steel wall mounting kit Stainless steel ceiling mount kit
Photometric light curves	

The EVF-L luminaries have a very high mechanical resistance to shocks IK10 and corrosion while being particularly bright. Thus they meet all requirements of aggressive environments (humidity, corrosion, pollution) for industrial areas at risk of explosion.

EVF-L LUMINARIES





Two opening switches allow the light source and the battery to be switched off automatically when the luminary flange is open.

MODULAR CONNEXION WAY

Through PNCX connector

- easier and quicker installation & maintenance
- easier loop in loop out, you can keep lighting throughout other lightings during maintenance operations.



LOOP IN/LOOP OUT
1 SOCKET + 1 PLUG
PNCX VERSION

With cable gland

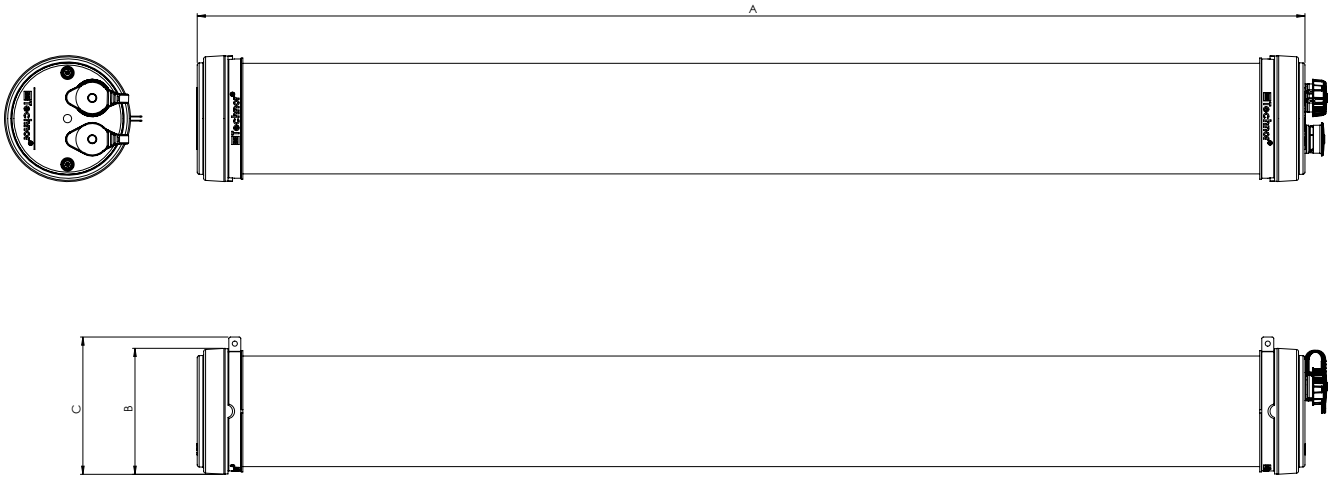
- Metric threads M20 or M25
- Loop in loop out facility
- Available for armoured cables or unarmoured.



LOOP IN/LOOP OUT
POLY GLAND VERSION



ARMOURED CABLE GLAND
VERSION

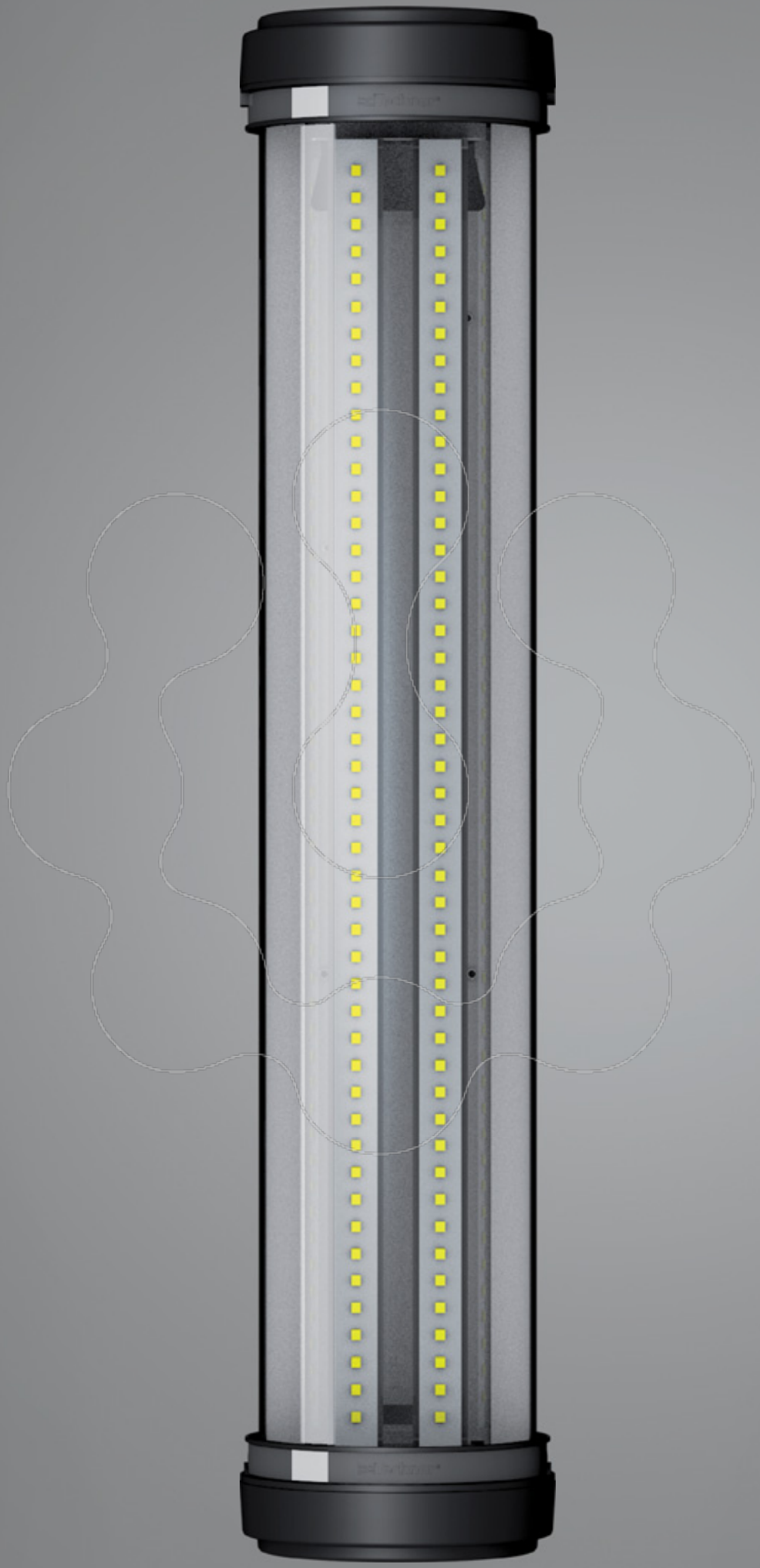


EVF-L.. Series for normal service

TYPE	CODE	POWER [W]	PROTECTION MODE	DIMENSIONS [mm]			WEIGHT [Kg]
				A	B	C	
EVF-L 116	A120301200040	1X16	Ex-demb	745	153	166	4.5
EVF-L 216	A120302200040	2X16	Ex-demb	745	153	166	4.5
EVF-L 132	A120301400040	1X32	Ex-demb	1342	153	166	6.5
EVF-L 232	A120302400040	2X32	Ex-demb	1342	153	166	6.5

EVF-L.. Series for 90' emergency service

TYPE	CODE	POWER [W]	PROTECTION MODE	DIMENSIONS [mm]			WEIGHT [Kg]
				A	B	C	
EVF-L 132 LE P 90	A120401400540	1X32	Ex-demb	1342	153	166	9
EVF-L 232 LE P 90	A120402400540	2X32	Ex-demb	1342	153	166	9
EVF-L 116 LE NP 90	A120401210540	1X16	Ex-demb	745	153	166	7
EVF-L 132 LE NP 90	A120401410540	1X32	Ex-demb	1342	153	166	9



LED

RMS-560 LED.. Series - Zones 1, 2, 21 & 22 - Stainless steel AISI 304



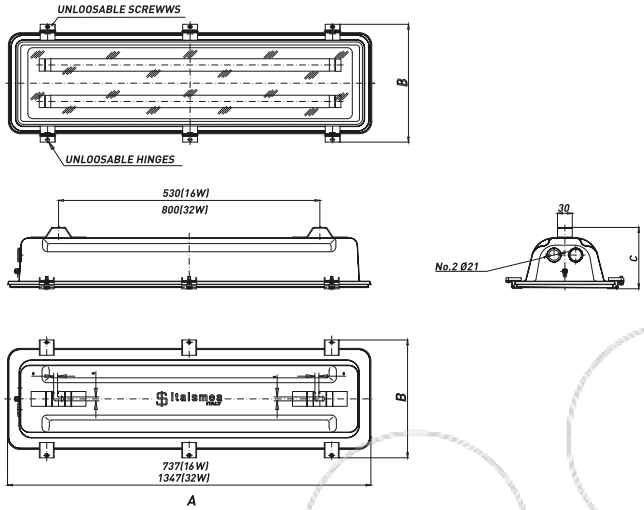
RMS.. series lighting fixtures are ideally suited for ON and OFF-SHORE applications and all kinds of industries where there is an high level of corrosion. Both body and glass frame are made of stainless steel AISI304 and manufactured from a single sheet of steel with no invasive mounting holes, to minimize the risk of water ingress through the housing. Out of holes for power supply cable, whatever protected by a suitable cable gland (available upon request), there are no passing through holes between inside and outside of luminaire. Therefore during the time there is no risk of IP rating decrease as it would be possible where, for fixing devices, there are through holes and relevant gaskets. Design has been studied to allow operator working with free hands and no need to support any part of lighting fixture. One person can take care of start-up or maintenance without any aid and assistance. Due to inorganic materials like stainless steel and glass, RMS.. series lighting fixtures are 95% recyclable; only components and insulation of single core wires need some more care.

TECHNICAL FEATURES

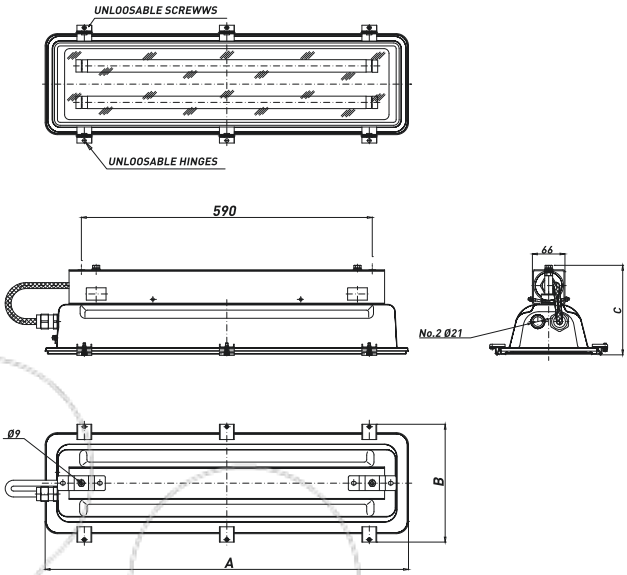
Material	AISI304 stainless steel, 0,8mm thickness and transparent part in tempered glass (AISI 316 L version available upon request)
IP rating	IP65
Ambient temperature range	-20°C to + 50°C (Normal & Standard Emergency models) -20°C to + 40°C (Emergency models with charging status pilot light)
Approvals	TÜV CY 17 ATEX 0205847 X
Marking	II 2 GD Ex eb db mb op is IIC T4 Gb Ex tb IIIC T135°C Db IP65
Gaskets	Special cross-section tightness gasket, silicon rubber made (closed cell), located in housing channel between body and window frame.
Entries	Body complete of two 21mm Ø through holes (on one side) for cable entry, one complete of metallic plug with M20 locknut and gasket and the other one with temporary plastic plug to prevent dust ingress.
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Extended long life new LED technology with CRI > 85
Ballast	Electronic
Rated operation voltage (UE)	220-240Vac (normal and emergency service) 198-278Vdc (normal service)
Frequency	50-60 Hz
Power factor	> 0,95
Accessories available upon request	Pole mounting kit/Ceiling mounting kit/Suspension mounting kit/Wall mounting kit 3°- 4° through holes opposite side

Dimensions RMS-560

RMS-560
(16W)
(32W)



RMS-560 EM
(16W)



LED RMS-560.. Series for normal service

TYPE	CODE	LAMP [W]	DIMENSIONS [mm]			WEIGHT [Kg]
			A	B	C	
RMS-560 116	A020321160008	16	737	239	123	
RMS-560 216	A020322160008	2 X 16	737	239	123	
RMS-560 132	A020321320008	32	1347	239	123	
RMS-560 232	A020322320008	2 X 32	1347	239	123	
RMS-560 116/MS*	A020321160108	16	737	239	123	
RMS-560 216/MS*	A020322160108	2 X 16	737	239	123	
RMS-560 132/MS*	A020321320108	32	1347	239	123	
RMS-560 232/MS*	A020322320108	2 X 32	1347	239	123	

* With micro-switch

LED RMS-560 Series for 90' emergency service

TYPE	CODE	LAMP [W]	DIMENSIONS [mm]			WEIGHT [Kg]
			A	B	C	
RMS-560 116 LE P 90	A020421161118*	16	737	239	183	
RMS-560 216 LE P 90	A020422161118*	2 X 16	737	239	183	
RMS-560 132 LE P 90	A020421321118**	32	1347	239	123	
RMS-560 232 LE P 90	A020422321118**	2 X 32	1347	239	123	
RMS-560 116 LE NP 90	A020421162118*	16	737	239	123	
RMS-560 132 LE NP 90	A020421322118**	32	737	239	123	

* External battery unit protected by stainless steel cover
**180' emergency version with external battery unit available upon request

FLOODLIGHTS

FL.. Series - Copper free aluminium or Stainless steel AISI 316 L



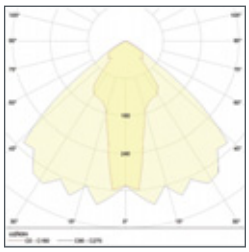
Due to the body made of aluminium with low content of copper and tempered glass, FL.. Series floodlights, provided in a wide range of wattage and power, are ideally suited for ON and OFF-SHORE applications and all kinds of industries where there is a high level of corrosion, mainly for lighting wide areas.
To increase further surface protection, upon request it is possible to apply an OFF-SHORE painting cycle suitable for marine environments.
Standard floodlights are manufactured with symmetrical narrow beam reflector and symmetrical wide beam reflector upon request (ordering codes upon request).
For ease of installation and maintenance, the luminaire features an integral Ex e connection box and AISI304 stainless steel universal mounting bracket.

TECHNICAL FEATURES

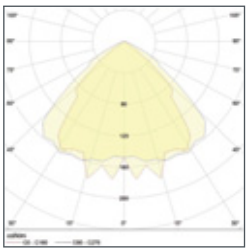
Material	Aluminium with low content of copper Stainless steel AISI 316 L (ordering codes upon request)
IP rating	IP66
Ambient temperature range	-50°C to +55°C ATEX/-20°C to +60°C IECEx
Approvals	Certified 00ATEX0023X (standard)/TR CU (marking upon request, ordering code to be required) IECEx INE 16.0038X
Marking	II 2 GD Ex de IIB+H2 T(**) Gb Ex tb IIIC T(**) Db IP66 ** T4/T135°C, T3/T200°C, T2/T205°-240°C
Gaskets	Gasket made of Nitrile Rubber (NBR) on flat joint
Surface treatment	Painted by green colour polyurethane painting cycle RAL6003 (other colour available upon request)/Internal anticondensate painting/AISI 316 L version unpainted
Entries	N° 2 entries M25x1,5
Hardware and screws	AISI 316 L Stainless steel screws and AISI304 Stainless steel adjustable bracket
Lamps	Included
Rated operation voltage (UE)	See table
Frequency	See table
Power factor	> 0,95
Accessories	N° 1 brass nickel chrome plated plug + N° 1 brass nickel chrome plated cable gland PNA type c/w set of inner seals
Accessories available upon request	Protection guard (not to be sold separately unless as a spare part) Special brackets for pole mounting
Options upon request	**HOT INSTANT RESTRIKE solution available via twin-arc lamp assuring immediate hot instant restrike ignition with flux that will reach 80% of the nominal lamp flux in about 3 minutes. HOT INSTANT RESTRIKE solution also available via INSTANT RESTRIKE BALLAST, assuring immediate hot instant restrike ignition with 80% of the lamp nominal flux in 7 seconds. (for high pressure sodium version)**

Photometric light curves

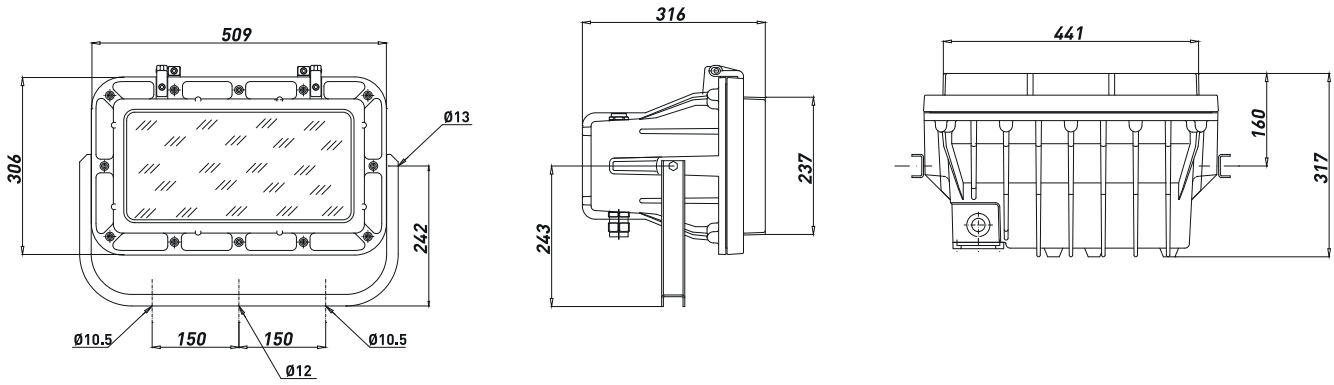
FL-SA IM HG



FL-SA IM HG wide beam



Dimensions FL



(FL..) Floodlights ATEX

TYPE	CODE	LAMP [W]	LAMP. TYPE	WEIGHT [Kg]	VOLTAGE	FREQUENCY	AMBIENT TEMPERATURE	T.CLASS
FL-15SA	A011115111122	150	HPS	22.70	230V*	50HZ***	(-50 °C;+55 °C)	T3
FL-25SA	A011125111122	250	HPS	23.80	230V*	50HZ***	(-50 °C;+55 °C)	T3
FL-40SA	A011140111122	400	HPS	25.00	230V*	50HZ***	(-50 °C;+55 °C)	T3
FL-25IM	A013125111122	250	METAL HALIDE	23.80	230V*	50HZ***	(-50 °C;+55 °C)	T3
FL-40IM	A013140111122	400	METAL HALIDE	22.80	230V*	50HZ***	(-50 °C;+55 °C)	T3
FL-25HG	A012125111122	250	MERCURY VAPOUR	23.70	230V*	50HZ***	(-50 °C;+55 °C)	T3
FL-40HG	A012140111122	400	MERCURY VAPOUR	20.90	230V*	50HZ***	(-50 °C;+55 °C)	T3
FL-14HA	A014114111722	2X70	HALOGEN	20	24VDC	-	(-50 °C;+55 °C)	T3
FL-14HA	A014114111822	2X70	HALOGEN	20	48VDC	-	(-50 °C;+55 °C)	T3
FL-50HA	A014150111922	500	HALOGEN	19	230V**	50/60HZ	(-50 °C;+55 °C)	T3

* 220 V and 240 V versions available upon request
** 220 V, 240 V (marking upon request)
*** 60 Hz available upon request
Mercury vapour light bulb is not included (banned by the European Community)

(FL..) Floodlights IEC Ex

TYPE	CODE	LAMP [W]	LAMP TYPE	WEIGHT [Kg]	VOLTAGE	FREQUENCY	AMBIENT TEMPERATURE	T. CLASS
FL-15SA	A011115111123	150	HPS	22,7	230V*	50HZ***	(-20 °C;+50 °C)	T3
FL-25SA	A011125111123	250	HPS	23,8	230V*	50HZ***	(-20 °C;+50 °C)	T3****
FL-40SA	A011140111123	400	HPS	25	230V*	50HZ***	(-20 °C;+50 °C)	T3****
FL-25IM	A013125111123	250	METAL HALIDE	23,8	230V*	50HZ***	(-20 °C;+50 °C)	T3****
FL-40IM	A013140111123	400	METAL HALIDE	22,8	230V*	50HZ***	(-20 °C;+50 °C)	T3****
FL-25HG	A012125111123	250	MERCURY VAPOUR	23,7	230V*	50HZ***	(-20 °C;+50 °C)	T3****
FL-40HG	A012140111123	400	MERCURY VAPOUR	20,9	230V*	50HZ***	(-20 °C;+50 °C)	T3****
FL-14HA	A014114111728	2X70	HALOGEN	20	24VDC	-	(-20 °C;+60 °C)	T4
FL-14HA	A014114111828	2X70	HALOGEN	20	48VDC	-	(-20 °C;+60 °C)	T4
FL-50HA	A014150111927	500	HALOGEN	19	230V**	50/60HZ	(-20 °C;+60 °C)	T2

* 220V and 240V version available upon request
** 220V, 240V (marking upon request)
*** 60 Hz available upon request
**** in case of maximum ambient temperature reaches +55°C, temperature class changes into T2/205°C (ordering code to be required)
in case of maximum ambient temperature reaches +60°C, temperature class changes into T2/210°C (ordering code to be required)
Below -20°C mercury vapour and metal halide floodlight can be used, providing they are switched on 24 hours a day.
Mercury vapour light bulb is not included (banned by the European Community)

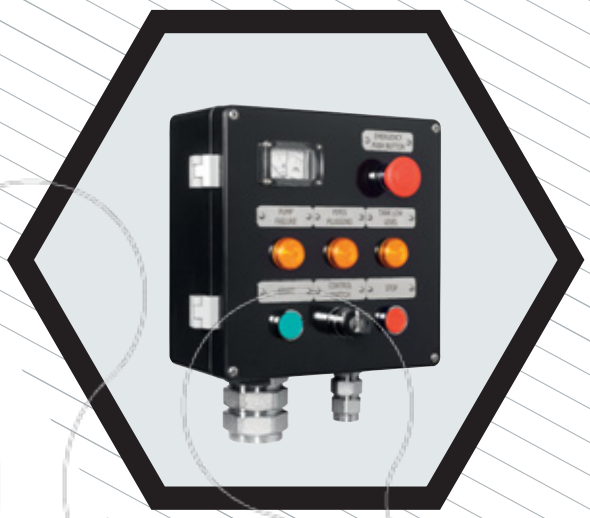
SPARES & ACCESSORIES

PRODUCT NAME	SHAPE	POWER [W]	CAP	VOLTAGE	FLUX [lm]	CODE	WHERE IT IS USED
FLUORESCENT COMPACT		45	E27	230 VAC	3000	A500400087000	EVDE-4/FC 45/EVCC-4/FC 45/EVA-4/FC 45
HALOGEN BULB		42	E27	230 VAC	630	A500400083000	EVDE-1/HA 42/EVDE-2/HA 42/EVCC-1/HA 42/EVCC-2/HA 42/EVA-1/HA 42/EVA-2/HA 42
		53	E27	230 VAC	850	A500400084000	EVCC-PR3/HA 53
		70	E27	230 VAC	1200	A500400085000	EVDE-2/HA 70
		105	E27	230 VAC	1980	A500400086000	EVDE-2/HA 105/EVCC-2/HA 105/EVA-2/HA 105
		140	E27	230 VAC	2840	A500400128000	EVDE-4/HA 140/EVCC-4/HA 140/EVA-4/HA 140
HIGH PRESSURE SODIUM BULB + IGNITER		70	E27	220/240 VAC	5900	A500400044000	EVDE-2/NA-B 70/EVCC-2/NA-B 70/EVA-2/NA-B 70
HIGH PRESSURE SODIUM BULB		50	E27	220/240 VAC		A500400043000	EVDE-2/NA-B 50/EVCC-2/NA-B 50/EVCC-3/NA-B 50/EVA-2/NA-B 50/EVA-3/NA-B 50
		70	E27	220/240 VAC	5900	A500400064000	EVDE-3/NA-B 70/EVCC-3/NA-B 70/EVA-3/NA-B 70
		100	E40	220/240 VAC	10000	A500400062000	EVDE-4/NA-B 100/EVCC-4/NA-B 100/EVA-4/NA-B 100
		150	E40	220/240 VAC	16100	A500400045000	EVDE-4/NA-B 150/EVCC-4/NA-B 150/EVA-4/NA-B 150
		250	E40	220/240 VAC	30900	A500400046000	EVDE-4/NA-B 250/EVDE-5/NA-B 250
		400	E40	220/240 VAC	55400	A500400047000	EVDE-5/NA-B 400
METAL HALIDE BULB		70	E27	220/240 VAC	7230	A500500003000	EVDE-3/IM-B 70/EVCC-3/IM-B 70/EVA-3/IM-B 70
		100	E40	220/240 VAC	9400	A500500004000	EVDE-4/IM-B 100/EVCC-4/IM-B 100/EVA-4/IM-B 100
		150	E40	220/240 VAC	15100	A500500005000	EVDE-4/IM-B 150/EVCC-4/IM-B 150/EVA-4/IM-B 150
		250	E40	220/240 VAC	18000	A500400030000	EVDE-4/IM-B 250/EVDE-5/IM-B 250
		400	E40	220/240 VAC	32500	A500400032000	EVDE-5/IM-B 400
LED		7	E27	230 VAC	430	A500600121000	EVCC-PR3/LED 7
HIGH PRESSURE SODIUM TUBE		150	E40	230 VAC	18000	A500400068000	FL-15SA
		250	E40	230 VAC	33000	A500400069000	FL-25SA
		400	E40	230 VAC	55800	A500400070000	FL-40SA

PRODUCT NAME	SHAPE	POWER [W]	CAP	VOLTAGE	FLUX [lm]	CODE	WHERE IT IS USED
METAL HALIDE TUBE		250	E40	230 VAC	20 500	A500400053000	FL-25IM
		400	E40	230 VAC	41000	A500400054000	FL-40IM
HALOGEN		70	H3	24 VDC	1750	A500400061000	FL-14HA
HALOGEN TUBE		500	E40	230 VAC	10250	A500400059000	FL-50HA
FLUORESCENT TUBE		18	G13	220/240 VAC	1300	A500400112000	EVF-P 118/EVF-P 218/RMS-540/RMS-550/RMS-560
		36	G13	220/240 VAC	3250	A500400113000	EVF-P 236/RMS-540/RMS-550/RMS-560
		58	G13	220/240 VAC	5240	A500400111000	EVF-P 258


COMPRESSOR
RUNNING
РАБОТАЮЩИЙ
КОМПРЕССОР
NITROGEN
RUN
РАБОТАЮЩИЙ
АЗОТ
PROCESS
RUN
РАБОТАЮЩИЙ
ПРОЦЕСС
COMPRESSOR
READY TO START
КОМПРЕССОР
ГОТОВ ДЛЯ ЗАПУСКА
COMMON
ALARMS
ОБЩИЕ
ТРЕВОГИ
COMMON
SHUTDOWN
ОБЩИЙ
ОСТАНОВ
COMPRESSOR
START
ЗАПУСК
КОМПРЕССОРА
COMPRESSOR
STOP
ОСТАНОВ
КОМПРЕССОРА
LOAD STEP
DECREASE
СНИЖЕНИЕ ЭТАПА
НАГРУЖЕНИЯ
ALARMS
RESET
СБРОС
ТРЕВОГ
LAMP
TEST
ИСПЫТАНИЕ
ЛАМПИ

CONTROL STATIONS



P.84

Increased safety

- EFXE Series - Stainless steel AISI 316 L 84
- EFXE Series - Copper free aluminium low thickness 86
- EFE Series - GRP 88
- Spares & Accessories 90

P.94

Flameproof

- CP../EFDCN.. Series - Copper free aluminium 94
- CP../EFSRC.. Series - Copper free aluminium 98
- EPKZM Series - Circuit breaker enclosure - Copper free aluminium 102
- Spares & Accessories 104

INCREASED SAFETY

EFXE Series - Stainless steel AISI 316 L



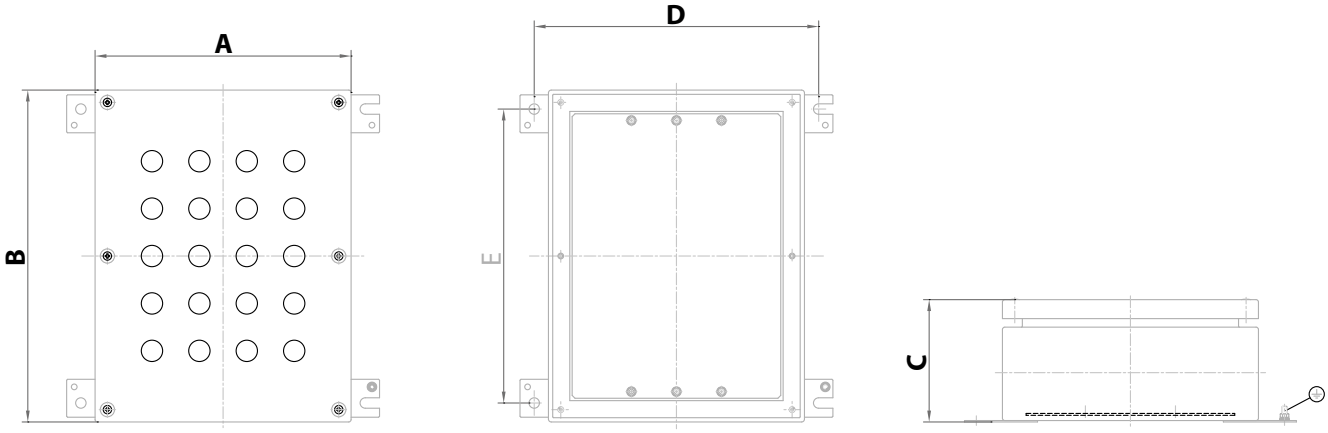
Push button stations EFXE Series, made of stainless steel AISI 316 L, are manufactured by using enclosures AQ../AR.. and SB Series.
They are designed to meet the requirements for use ON and OFF-SHORE, in petrochemical and marine applications and for any other industry where an explosive atmosphere may be present.

They can be equipped with following Ex de certified components:
- Standard and emergency push buttons,
- Rotating switches,
- Signalling lamps,
- Measurement instruments.

TECHNICAL FEATURES

Material	Stainless steel AISI-316L
IP rating	IP65/IP66
Ambient temperature range	-50°C to +60°C (ATEX) -50°C to +95°C (IECEx)
Approvals	IMQ 08 ATEX 028X IECEx IMQ 15.0002X TR CU
Marking	II 2 GD Ex de IIC T(**) Gb/Ex mb IIC T(**) Gb Ex tb IIIC T(**) Db IP65/66 ** T6/T85°C, T5/T100°C, T4/T135°C
Surface treatment	Acid treatment
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory
Accessories available upon request	Electropolish treatment Side gland plates Hinges Drain/breather valve Traffolyte/Stainless steel certificate label Internal mounting plate Locking facility Passing through earth bolt

Dimensions EFXE



EFXE Series - Stainless steel push button stations

TYPE	DIMENSIONS [mm]					WEIGHT [Kg]
	A	B	C	D	E	
EFXE-2727	270	270	130	300	230	4,5
EFXE-3535	350	350	160	380	310	5,6
EFXE-1420	140	200	130	170	-	4
EFXE-2027	200	270	130	230	230	7
EFXE-2735	270	350	130	300	310	9,5
EFXE-3550	350	500	160	380	460	13
EFXE-5050	500	500	160		460	14,5

* For complete push button stations is necessary to ask to the Sales Office.

Maximum number of entries on sides and cover

TYPE	EFXE-2727		EFXE-3535		EFXE-1320		EFXE-2027		EFXE-2735		EFXE-3550		EFXE-5050	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
M20/1/2"	12	12	24	24	6	10	10	12	12	16	24	36	36	36
M25/3/4"	10	10	14	14	4	8	8	10	10	14	14	20	20	20
M32/1"	4	4	12	12	2	3	3	4	4	6	12	18	18	18
M40/1" 1/4	4	4	5	5	2	3	3	4	4	5	5	7	7	7
M50/1" 1/2	3	3	4	4	1	2	2	3	3	4	4	6	6	6
M63/2"	3	3	3	3	1	2	2	3	3	3	3	5	5	5
M75/2" 1/2	-	-	3	3	-	-	-	-	-	-	3	4	4	2
M80/3"	-	-	2	2	-	-	-	-	-	-	4	4	4	4
COVER ENTRIES	16		25		6		12		20		40		64	

INCREASED SAFETY

EFXE Series - Copper free aluminium low thickness



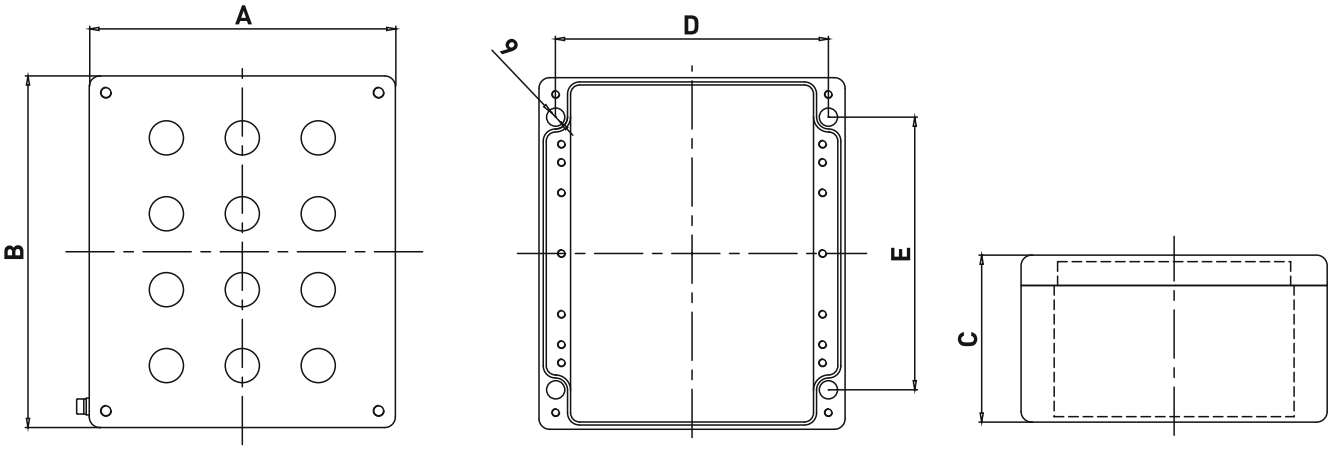
Push button stations EFXE Series, made of aluminium with low content of copper, are manufactured by using aluminium enclosures AQ../AR.. Series.
They are designed to meet the requirements for use ON and OFF-SHORE, in petrochemical and marine applications and for any other industry where an explosive atmosphere may be present.

They can be equipped with following Ex de certified components:
- Standard and emergency push buttons;
- Rotating switches;
- Signalling lamps;
- Measurement instruments.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP65/IP66
Ambient temperature range	-50°C to +60°C (ATEX) -50°C to +95°C (IECEx)
Approvals	IMQ 08 ATEX 028X IECEx IMQ 15.0002X TR CU
Marking	II 2 GD Ex de IIC T(**) Gb/Ex mb IIC T(**) Gb Ex tb IIIC T(**) Db IP65/66 ** T6/T85°C, T5/T100°C, T4/T135°C
Surface treatment	Standard with polyester powder coating RAL 7001
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Hinges Drain/breather valve Traffolyte/Stainless steel certificate label Internal mounting plate Passing through earth bolt

Dimensions EFXE



EFXE Series - Aluminium push button stations

TYPE	DIMENSIONS [mm]					WEIGHT [Kg]
	A	B	C	E	F	
EFXE-0818	80	175	80	52	162	
EFXE-0825	80	250	80	51	237	
EFXE-1015	100	150	80	64	134	
EFXE-1010	100	100	81	66	86	0,62
EFXE-1212	120	122	81	83	106	0,94
EFXE-1222	120	220	90	82	204	1,43
EFXE-1616	160	160	90	110	140	1,5
EFXE-1624	160	240	100	123	225	
EFXE-1636	160	360	91	110	340	
EFXE-2023	202	232	110	180	180	2,44
EFXE-2328	230	280	110	181	261	2,99
EFXE-2333	231	331	120	177	311	

For complete push button stations is necessary to ask to the Sales Office.

INCREASED SAFETY
EFE Series - GRP



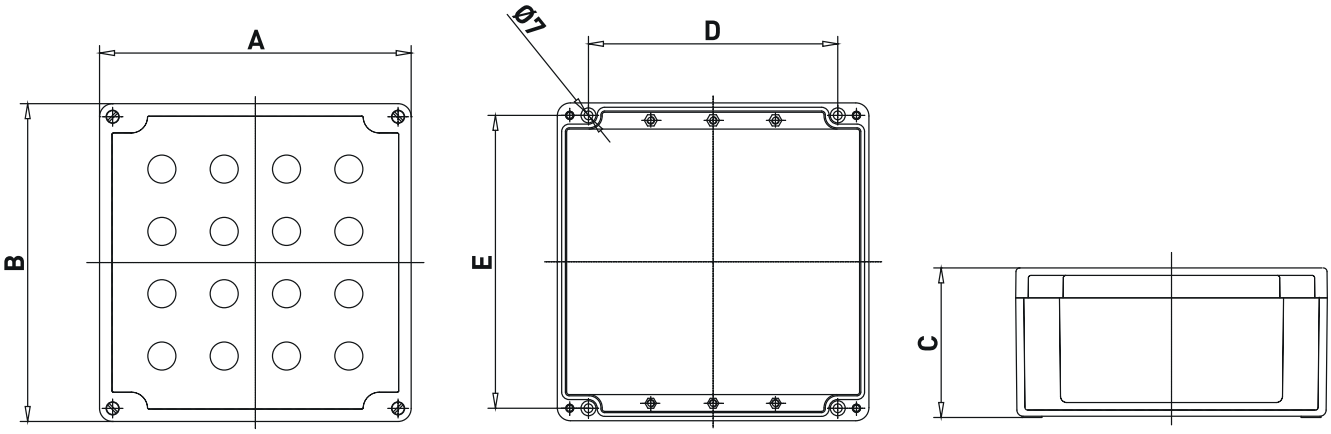
Push button stations EFE Series, made of GRP, are manufactured by using enclosure AQ../AR.. Series.
They are designed to meet the requirements for use ON and OFF-SHORE, in petrochemical and marine applications and for any other industry where an explosive atmosphere may be present.

They can be equipped with following Ex de certified components:
- Standard and emergency push buttons;
- Rotating switches;
- Signalling lamps;
- Measurement instruments.

TECHNICAL FEATURES

Material	GRP (Glassfiber reinforced polyester)
IP rating	IP65/IP66
Ambient temperature range	-50°C to +60°C (ATEX) -50°C to +95°C (IECEx)
Approvals	IMQ 08 ATEX 028X IECEx IMQ 15.0002X TR CU
Marking	II 2 GD Ex de IIC T(**) Gb/Ex mb IIC T(**) Gb Ex tb IIIC T(**) Db IP65/66 ** T6/T85°C, T5/T100°C, T4/T135°C
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Hinges Drain/breather valve Traffolyte/Stainless steel certificate label Internal mounting plate Earth continuity plates Passing through earth bolt

Dimensions EFE



EFE Series - GRP push button stations

TYPE	DIMENSIONS [mm]					WEIGHT [Kg]
	A	B	C	D	E	
EFE-1212	120	122	90	82	106	0.75
EFE-1222	120	220	90	82	204	1,06
EFE-1616	160	160	90	110	140	1,29
EFE-1626	160	260	90	110	240	1.71
EFE-1636	160	360	90	110	340	2.15
EFE-2526	250	255	120	200	235	2.65
EFE-2540	250	400	120	200	380	3,65
EFE-2560	250	600	120	200	580	5,235
EFE-4140	405	400	120	355	380	5.58

* For complete push button stations is necessary to ask to the Sales Office.

Maximum number of entries on sides and cover

TYPE	M20/1/2"		M25/3/4"		M32/1"		M40/1" 1/4		M50/1" 1/2		M63/2"		COVER ENTRIES
	A	B	A	B	A	B	A	B	A	B	A	B	
EFE-1212	2	2	1	2	1	1	1	1	-	-	-	-	2
EFE -1222	2	5	1	4	1	3	1	3	-	-	-	-	6
EFE -1616	3	3	2	3	1	2	1	1	-	-	-	-	4
EFE -1626	3	5	2	5	1	4	1	3	-	3	-	-	8
EFE -1636	3	8	2	7	1	6	1	5	-	4	-	-	10
EFE -2526	8	10	8	10	3	7	3	4	2	3	2	2	16
EFE -2540	8	18	8	16	3	5	3	5	3	5	2	4	24
EFE -2560	8	25	8	24	3	10	3	8	2	6	2	6	40
EFE -4140	16	18	6	14	5	6	5	5	4	5	3	6	42

INCREASED SAFETY

The Harmatex components range features large push button selection, with a choice of momentary or push-push actuation modes; pilot lamps and selector switches, with plastic or metal bezel.
Harmatex range offers unrivalled flexibility with a modular design accommodating up to 6 contacts per operator head.

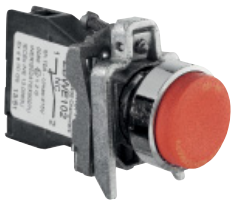
SPARES & ACCESSORIES

Material	Metal and plastic
IP rating	IP65/IP66
Ambient temperature range	-20°C TO 65°C -20°C TO 75°C
Approvals	Certified 02ATEX9007U (contact blocks) Certified 04ATEX9003U (pilot lamps) IECEx INE 13.0063U
Marking	II 2 GD Ex d e IIC Gb (contact blocks) Ex e mb IIC Gb (pilot lamps) Ex tb IIIC Db



Flush push buttons

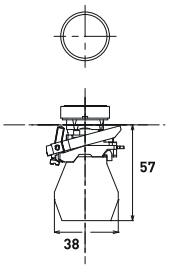
CODE	TYPE	BEZEL	COLOUR	CONTACT
B1301A0009000	XBW4BA11 - MOMENTARY PUSH BUTTON	METAL	WHITE	1NO
B1301A0010000	XBW4BA21 - MOMENTARY PUSH BUTTON	METAL	BLACK	1NO
B1301A0015000	XBW4BA22 - MOMENTARY PUSH BUTTON	METAL	BLACK	1NC
B1301A0011000	XBW4BA31 - MOMENTARY PUSH BUTTON	METAL	GREEN	1NO
B1301A0016000	XBW4BA41 - MOMENTARY PUSH BUTTON	METAL	RED	1NO
B1301A0012000	XBW4BA42 - MOMENTARY PUSH BUTTON	METAL	RED	1NC
B1301A0013000	XBW4BA51 - MOMENTARY PUSH BUTTON	METAL	YELLOW	1NO
B1301A0014000	XBW4BA61 - MOMENTARY PUSH BUTTON	METAL	BLUE	1NO



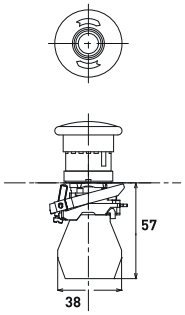
Projecting push buttons

CODE	TYPE	BEZEL	COLOUR	CONTACT
B1301A0056000	XBW4BL11 - MOMENTARY PUSH BUTTON	METAL	WHITE	1NO
B1301A0057000	XBW4BL21 - MOMENTARY PUSH BUTTON	METAL	BLACK	1NO
B1301A0058000	XBW4BL31 - MOMENTARY PUSH BUTTON	METAL	GREEN	1NO
B1301A0059000	XBW4BL42 - MOMENTARY PUSH BUTTON	METAL	RED	1NC
B1301A0060000	XBW4BL51 - MOMENTARY PUSH BUTTON	METAL	YELLOW	1NO
B1301A0061000	XBW4BL61 - MOMENTARY PUSH BUTTON	METAL	BLUE	1NO

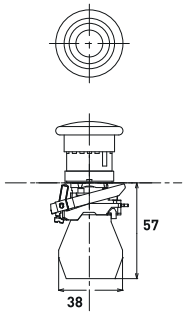
Dimensions HARMATEX



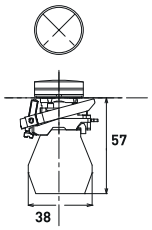
Pushbutton



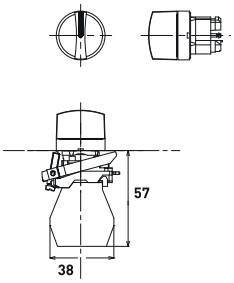
Mushroom Pushbutton
Twist to release



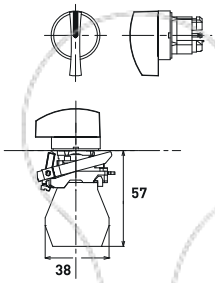
Emergency Stop
Mushroom Pushbutton



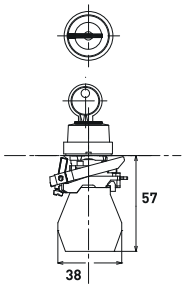
Pilot light



Selector switches
with standard handle



Selector switches
with long handle



Key selector switches

Push buttons with silicone boot





CODE	TYPE	BEZEL	COLOUR	CONTACT
B1301A0062000	XBW4BP11S - MOMENTARY PUSH BUTTON	METAL	WHITE	1NO
B1301A0063000	XBW4BP21S - MOMENTARY PUSH BUTTON	METAL	BLACK	1NO
B1301A0064000	XBW4BP31S - MOMENTARY PUSH BUTTON	METAL	GREEN	1NO
B1301A0001000	XBW4BP42S - MOMENTARY PUSH BUTTON	METAL	RED	1NC
B1301A0065000	XBW4BP51S - MOMENTARY PUSH BUTTON	METAL	YELLOW	1NO
B1301A0066000	XBW4BP61S - MOMENTARY PUSH BUTTON	METAL	BLUE	1NO
B1301A0067000	XBW5AP11S - MOMENTARY PUSH BUTTON	PLASTIC	WHITE	1NO
B1301A0068000	XBW5AP21S - MOMENTARY PUSH BUTTON	PLASTIC	BLACK	1NO
B1301A0069000	XBW5AP31S - MOMENTARY PUSH BUTTON	PLASTIC	GREEN	1NO
B1301A0071000	XBW5AP42S - MOMENTARY PUSH BUTTON	PLASTIC	RED	1NC
B1301A0073000	XBW5AP51S - MOMENTARY PUSH BUTTON	PLASTIC	YELLOW	1NO
B1301A0072000	XBW5AP61S - MOMENTARY PUSH BUTTON	PLASTIC	BLUE	1NO

Stop mushroom push button



CODE	TYPE	BEZEL	COLOUR	CONTACT
B1301A0020000	XBW4BC21 - MOMENTARY MUSHROOM	METAL	BLACK	1NO
B1301A0021000	XBW4BC31 - MOMENTARY MUSHROOM	METAL	GREEN	1NO
B1301A0022000	XBW4BC42 - MOMENTARY MUSHROOM	METAL	RED	1NC
B1301A0023000	XBW4BC51 - MOMENTARY MUSHROOM	METAL	YELLOW	1NO
B1301A0101000	XBW4BC61 - MOMENTARY MUSHROOM	METAL	BLUE	1NO
B130152202000	XBW5AC21 - MOMENTARY MUSHROOM	PLASTIC	BLACK	1NO
B130152203000	XBW5AC31- MOMENTARY MUSHROOM	PLASTIC	GREEN	1NO
B130152204000	XBW5AC42- MOMENTARY MUSHROOM	PLASTIC	RED	1NC
B130152205000	XBW5AC51- MOMENTARY MUSHROOM	PLASTIC	YELLOW	1NO
B130152206000	XBW5AC61- MOMENTARY MUSHROOM	PLASTIC	BLUE	1NO

Emergency stop mushroom push buttons





CODE	TYPE	BEZEL	CONTACT
B1301A0075000	XBW4BS142 - MUSHROOM TWIST T.R. WITH KEY	METAL	1NC
B1301A0076000	XBW4BS542 - MUSHROOM TWIST T.R.	METAL	1NC
B1301A0078000	XBW5AS142 - MUSHROOM TWIST T.R. WITH KEY	PLASTIC	1NC
B1301A0079000	XBW5AS542 - MUSHROOM TWIST T.R.	PLASTIC	1NC

Pilot lights 24V to 254V AC/DC (current from 2 to 10mA)





CODE	TYPE	BEZEL	COLOUR
B1301A0081000	XLW4BV013 - PILOT LIGHT	METAL	WHITE
B1301A0082000	XLW4BV033 - PILOT LIGHT	METAL	GREEN
B1301A0083000	XLW4BV043 - PILOT LIGHT	METAL	RED
B1301A0084000	XLW4BV053 - PILOT LIGHT	METAL	YELLOW
B1301A0085000	XLW4BV063 - PILOT LIGHT	METAL	BLUE
B1301A0086000	XLW5AV013 - PILOT LIGHT	PLASTIC	WHITE
B1301A0087000	XLW5AV033 - PILOT LIGHT	PLASTIC	GREEN
B1301A0088000	XLW5AV043 - PILOT LIGHT	PLASTIC	RED
B1301A0089000	XLW5AV053 - PILOT LIGHT	PLASTIC	YELLOW
B1301A0105000	XLW5AV063 - PILOT LIGHT	PLASTIC	BLUE

Selector switches with standard handle



CODE	TYPE	BEZEL	POSITIONS	CONTACT
B1301A0024000	XBW4BD21 - STAY PUT	METAL	2	1NO
B1301A0029000	XBW4BD41 - SPRING RETURN	METAL	2	1NO
B1301A0028000	XBW4BD33 - STAY PUT	METAL	3	1NO+1NO
B1301A0031000	XBW4BD53 - SPRING RETURN TO CENTER	METAL	3	1NO+1NO
B1301A0032000	XBW4BD73 - SPRING RETURN FROM LEFT	METAL	3	1NO+1NO
B1301A0034000	XBW4BD83 - SPRING RETURN FROM RIGHT	METAL	3	1NO+1NO
B1301A0051000	XBW5AD21 - STAY PUT	PLASTIC	2	1NO
B1301A0103000	XBW5AD41 - SPRING RETURN	PLASTIC	2	1NO
B1301A0017000	XBW5AD33 - STAY PUT	PLASTIC	3	1NO+1NO
B1301A0052000	XBW5AD53 - SPRING RETURN TO CENTER	PLASTIC	3	1NO+1NO
B1301A0053000	XBW5AD73 - SPRING RETURN FROM LEFT	PLASTIC	3	1NO+1NO
B1301A0104000	XBW5AD83 - SPRING RETURN FROM RIGHT	PLASTIC	3	1NO+1NO

Selector switches with long handle



CODE	TYPE	BEZEL	POSITIONS	CONTACT
B1301A0046000	XBW4BJ21 - STAY PUT	METAL	2	1NO
B1301A0048000	XBW4BJ41 - SPRING RETURN	METAL	2	1NO
B1301A0047000	XBW4BJ33 - STAY PUT	METAL	3	1NO+1NO
B1301A0049000	XBW4BJ53 - SPRING RETURN TO CENTER	METAL	3	1NO+1NO
B1301A0050000	XBW4BJ73 - SPRING RETURN FROM LEFT	METAL	3	1NO+1NO
B1301A0102000	XBW4BJ83 - SPRING RETURN FROM RIGHT	METAL	3	1NO+1NO

Key selector switches



CODE	TYPE	BEZEL	POSITIONS	KEY WITHDRAWAL	CONTACT
B1301A0039000	XBW4BG21 - STAY PUT	METAL	2	LEFT	1NO
B1301A0041000	XBW4BG41 - STAY PUT	METAL	2	LEFT – RIGHT	1NO
B1301A0044000	XBW4BG61 - SPRING RETURN FROM RIGHT	METAL	2	LEFT	1NO
B1301A0036000	XBW4BG03 - STAY PUT	METAL	3	LEFT – 0 – RIGHT	1NO+1NO
B1301A0040000	XBW4BG33 - STAY PUT	METAL	3	0	1NO+1NO
UPON REQUEST	XBW4BG53 - STAY PUT	METAL	3	LEFT – RIGHT	1NO+1NO
UPON REQUEST	XBW4BG93 - STAY PUT	METAL	3	LEFT	1NO+1NO
UPON REQUEST	XBW4BG093 - STAY PUT	METAL	3	RIGHT	1NO+1NO
B1301A0038000	XBW4BG13 - SPRING RETURN FROM LEFT	METAL	3	0	1NO+1NO
B1301A0042000	XBW4BG73 - SPRING RETURN TO CENTER	METAL	3	0	1NO+1NO
B1301A0043000	XBW4BG83 - SPRING RETURN FROM RIGHT	METAL	3	0	1NO+1NO
B1301A0037000	XBW4BG083 - SPRING RETURN FROM RIGHT	METAL	3	LEFT	1NO+1NO

Contacts

CODE	TYPE	CONTACT
B130700369000	ZBWE101 – NORMALLY OPEN CONTACT	NO
B130700366000	ZBWE102 – NORMALLY CLOSE CONTACT	NC



Rated operational characteristics

ITH MAX. 10A	AC-15		DC-13		Ui max. (V)
	Ue (V)	Ie max. (A)	Ue (V)	Ie max. (A)	
	120	6	24	2,87	415
	240	3	125	0,55	
	380	1,9	250	0,27	

Lamps

CODE	TYPE
B130700244000	ZBWV1 SPARE PILOT LIGHT BODY WHITE, RED, YELLOW, BLUE
B130700245000	ZBWV3 SPARE PILOT LIGHT BODY FOR GREEN



FLAMEPROOF

CP../EFDCN.. Series - Copper free aluminium

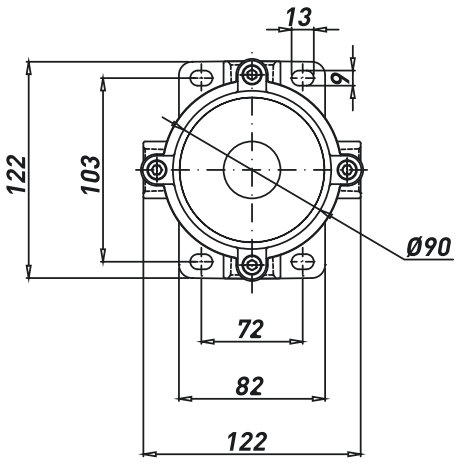


The CP../EFDCN.. range of control stations are based on the features of our CP../CPS.. enclosures, offer an Ex d IIC mode of protection and they can be equipped with different components (push button, selector switches, potentiometers, signal lamps, rotary handles, ammeters, voltmeters, etc.) Boxes are manufactured in aluminium with low content of copper and complete with threaded hubs suitable for cable glands or conduit, connection does not affect the internal void, which remains available for terminals wiring. Internal and external screws are made of AISI316 stainless steel.
This series is taylor made on the base of customer specification, including quantity and type of operators.
Based on the customer's needs and certificate requirements, our technical department will advise and select the most suitable combination.
These boxes are suitable for hazardous areas of industrial plants for indoor and outdoor applications.

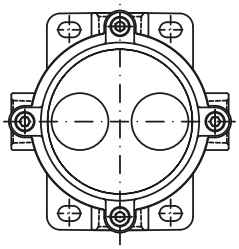
TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-50°C to +60°C (ATEX) -60°C to +60°C (IECEx)
Approvals	Certified 03ATEX0009 IECEx BKI 15.0002 TR CU
Marking	II 2 GD Ex d IIC T(*) Gb Ex t IIIC T(*) Db IP66 * T6/T85°C, T5/T100°C, T4/T135°C
Surface treatment	Painted by green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Thread	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Internal anticondensate painting Traffolyte/Stainless steel certificate label Hot deep galvanized steel or Stainless Steel AISI316 stand/canopy.

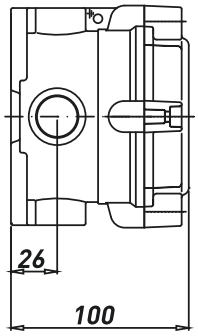
Dimensions CP../EFDCN



CPC/CPT/CPX
EFDCN-1



CPC/CPT/CPX
EFDCN-2

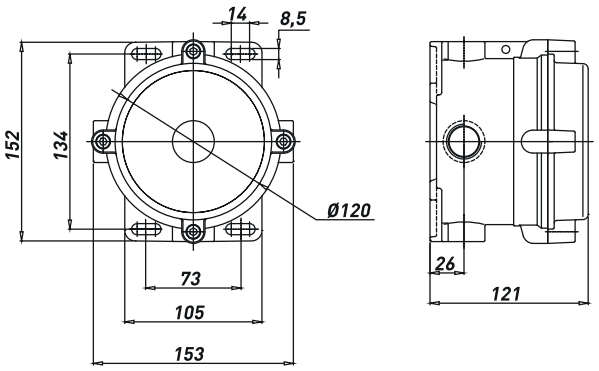


CP../EFDCN Series push button stations (Selection table - empty boxes)

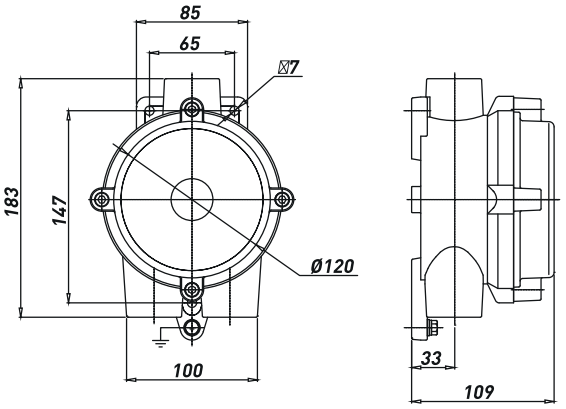
N° OF ENTRIES	TYPE
2	CPC-26 2XM25
	CPC-26 2X3/4"GK
	CPC-26 2X3/4"NPT
3	CPT-26 3XM25
	CPT-26 3X3/4"GK
	CPT-26 3X3/4"NPT
4	CPX-26 4XM25
	CPX-26 4X3/4"GK
	CPX-26 4X3/4"NPT

* For complete push button stations is necessary to ask to the Sales Office.

Dimensions CPS../EFDCN



CPSC/CPST/CPSX



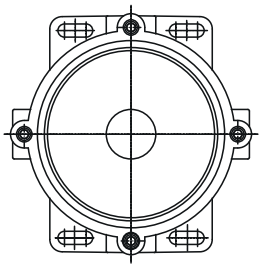
CPSG

CPS../EFDCN Series push button stations (Selection table - empty boxes)

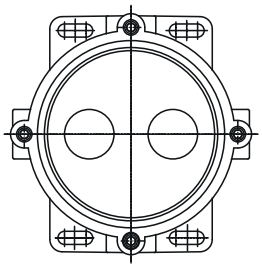
N° OF ENTRIES	TYPE
2	CPSC 2XM25
	CPSC 2XM32
	CPSC 2X3/4" GK
	CPSC 2X3/4" NPT
	CPSC 2X1" GK
	CPSC 2X1" NPT
3	CPST 3XM25
	CPST 3XM32
	CPST 3X3/4" GK
	CPST 3X3/4" NPT
	CPST 3X1" GK
	CPST 3X1" NPT
3	CPSG 3XM25
	CPSG 3XM32
	CPSG 3X3/4" GK
	CPSG 3X3/4" NPT
	CPSG 3X1" GK
	CPSG 3X1" NPT
4	CPSX 4XM25
	CPSX 4XM32
	CPSX 4X3/4" GK
	CPSX 4X3/4" NPT
	CPSX 4X1" GK
	CPSX 4X1" NPT

* For complete push button stations is necessary to ask to the Sales Office.

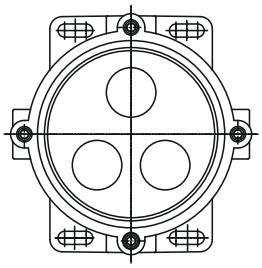
Dimensions CP../CPS.. EFDCN



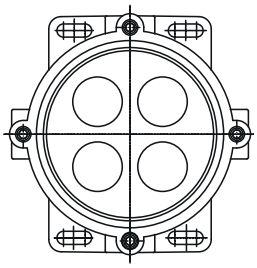
EFDCN-1



EFDCN-2

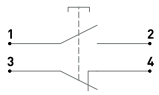
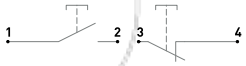
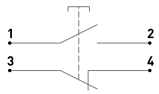
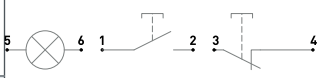
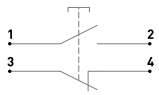


EFDCN-3



EFDCN-4

CP../CPS.. EFDCN Series complete push button stations

TYPE	CODE	ENTRIES	WEIGHT [Kg]	AMBIENT TEMPERATURE	COLOUR	DIAGRAM
CPC-26/EFDCN-PE(1NO/1NC) - FOOT SWITCH	B08H317211112	M25X1,5	3.20	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-PE(1NO/1NC) - FOOT SWITCH	B08H317211122	3/4" NPT	3.20	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-PE(1NO/1NC) - FOOT SWITCH	B08H317211132	3/4" UNI-6125	3.20	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-PP - BLACK P.B. 1NO/RED P.B. 1NC	B08H32A1B3112	M25X1,5	1.22	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-PP - BLACK P.B. 1NO/RED P.B. 1NC	B08H32A1B3122	3/4" NPT	1.22	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-PP - BLACK P.B. 1NO/RED P.B. 1NC	B08H32A1B3132	3/4" UNI-6125	1.22	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-P - BLACK P.B. 1NO/1NC	B08H310111112	M25X1,5	1.10	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-P - BLACK P.B. 1NO/1NC	B08H310111122	3/4" NPT	1.10	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-P - BLACK P.B. 1NO/1NC	B08H310111132	3/4" UNI-6125	1.10	(-20 °C;+40 °C)	RAL-6003	
CPSC-26/EFDCN-PPL - BLACK P.B. 1NO/RED P.B. 1NC/RED P.L.	B08K33ABS0112	M25X1,5	1.70	(-20 °C;+40 °C)	RAL-6003	
CPSC-26/EFDCN-PPL - BLACK P.B. 1NO/RED P.B. 1NC/RED P.L.	B08K33ABS0122	3/4" NPT	1.70	(-20 °C;+40 °C)	RAL-6003	
CPSC-26/EFDCN-PPL - BLACK P.B. 1NO/RED P.B. 1NC/RED P.L.	B08K33ABS0132	3/4" UNI-6125	1.70	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-EM - BLACK P.B. 1NO/1NC	B08H316211112	M25X1,5	1.20	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-EM - BLACK P.B. 1NO/1NC	B08H316211122	3/4" NPT	1.20	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-EM - BLACK P.B. 1NO/1NC	B08H316211132	3/4" UNI-6125	1.20	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-EM - BLACK P.B. 1NO/1NC PRESSED	B08H316111112	M25X1,5	1.20	(-20 °C;+40 °C)	RAL-6003	
CPC-26/EFDCN-EM - RED P.B. 1NO/1NC	B08H316411112	M25X1,5	1.20	(-20 °C;+40 °C)	RAL-6003	

FLAMEPROOF

CP../EFSRC.. Series - Copper free aluminium

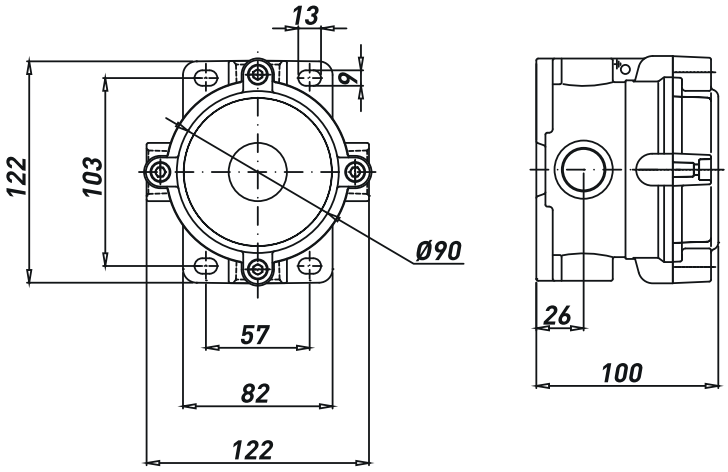


The CP../EFSRC.. range of control stations are based on the features of our CP../CPS.. enclosures, offer an Ex d IIC mode of protection and they can be equipped with different components (push button, selector switches, potentiometers, signal lamps, rotary handles, ammeters, voltmeters, etc.)
Boxes are manufactured in aluminium with low content of copper and complete with threaded hubs suitable for cable glands or conduit, connection does not affect the internal void, which remains available for terminals wiring.
Internal and external screws are made of AISI316 stainless steel.
This series is taylor made on the base of customer specification, including quantity and type of operators. Based on the customer's needs and certificate requirements, our technical department will advise and select the most suitable combination.
These boxes are suitable for hazardous areas of industrial plants for indoor and outdoor applications.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-50°C to +60°C (ATEX) -60°C to +60°C (IECEx)
Approvals	Certified 03ATEX0009 IECEx BKI 15.0002 TR CU
Marking	II 2 GD Ex d IIC T(*) Gb Ex t IIIC T(*) Db IP66 * T6/T85°C, T5/T100°C, T4/T135°C
Surface treatment	Painted by green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Thread	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Internal anticondensate painting Traffolyte/Stainless steel certificate label Hot deep galvanized steel or Stainless Steel AISI316 stand/canopy.

Dimensions CP../EFSRC



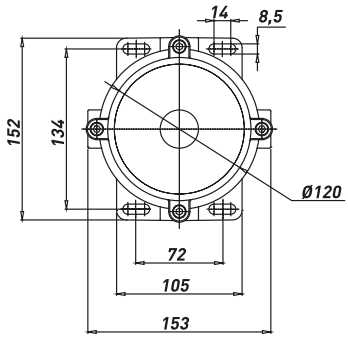
CPC/CPT/CPX
EFSRC-1

CP../EFSRC Series push button stations (Selection table - empty boxes)

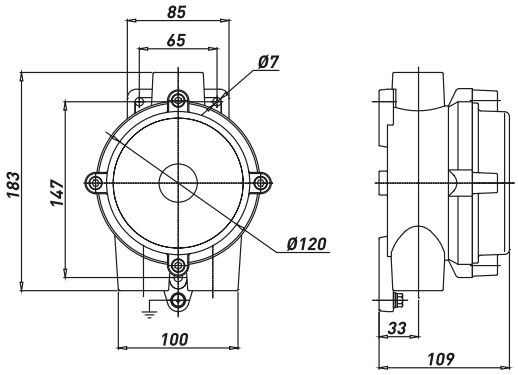
N° OF ENTRIES	TYPE
2	CPC-26 2XM25
	CPC-26 2X3/4"GK
	CPC-26 2X3/4"NPT
3	CPT-26 3XM25
	CPT-26 3X3/4"GK
	CPT-26 3X3/4"NPT
4	CPX-26 4XM25
	CPX-26 4X3/4"GK
	CPX-26 4X3/4"NPT

* For complete push button stations is necessary to ask to the Sales Office.

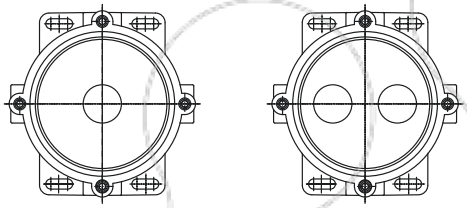
Dimensions CPS../EFSRC



CPSC/CPST/CPSX



CPSG



EFSRC-1 EFSRC-2

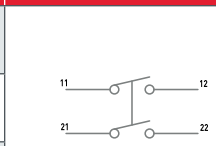
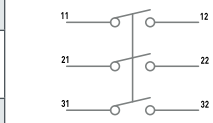
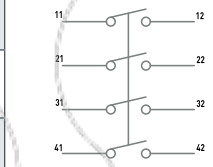
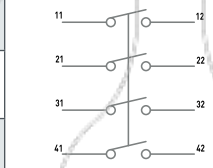
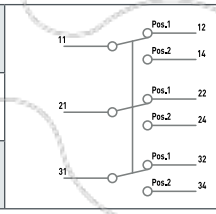
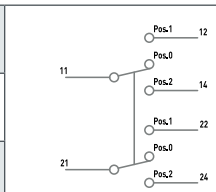
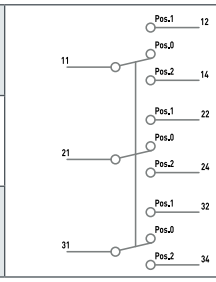
CPS../EFSRC Series push button stations (Selection table - empty boxes)

N° OF ENTRIES	TYPE
2	CPSC 2XM25
	CPSC 2XM32
	CPSC 2X3/4" GK
	CPSC 2X3/4" NPT
	CPSC 2X1" GK
	CPSC 2X1" NPT
3	CPST 3XM25
	CPST 3XM32
	CPST 3X3/4" GK
	CPST 3X3/4" NPT
	CPST 3X1" GK
	CPST 3X1" NPT
3	CPSG 3XM25
	CPSG 3XM32
	CPSG 3X3/4" GK
	CPSG 3X3/4" NPT
	CPSG 3X1" GK
	CPSG 3X1" NPT
4	CPSX 4XM25
	CPSX 4XM32
	CPSX 4X3/4" GK
	CPSX 4X3/4" NPT
	CPSX 4X1" GK
	CPSX 4X1" NPT

* For complete push button stations is necessary to ask to the Sales Office.

Boxes takes following suffix:
- EFDCN; if assembled with push buttons, pilot lamps,potentiometer, etc.
- EFSRC; if assembled with step, change-over or selector switches.

CP../CPS.. EFSRC Series complete selector switches

TYPE	CODE	DIAGRAM	ENTRIES	WEIGHT [Kg]	AMBIENT TEMPERATURE
CPC-26/EFSRC-220	B08H315121112		M25X1,5	1.10	(-20 °C;+40 °C)
CPC-26/EFSRC-220	B08H315121122		3/4" NPT	1.10	(-20 °C;+40 °C)
CPC-26/EFSRC-220	B08H315121132		3/4" UNI-6125	1.10	(-20 °C;+40 °C)
CPC-26/EFSRC-320	B08H315131112		M25X1,5	1.15	(-20 °C;+40 °C)
CPC-26/EFSRC-320	B08H315131122		3/4" NPT	1.15	(-20 °C;+40 °C)
CPC-26/EFSRC-320	B08H315131132		3/4" UNI-6125	1.15	(-20 °C;+40 °C)
CPC-26/EFSRC-420	B08H315141112		M25X1,5	1.15	(-20 °C;+40 °C)
CPC-26/EFSRC-420	B08H315141122		3/4" NPT	1.15	(-20 °C;+40 °C)
CPC-26/EFSRC-420	B08H315141132		3/4" UNI-6125	1.15	(-20 °C;+40 °C)
CPSC-26/EFSRC-432	B08K315142112		M25X1,5	1.30	(-20 °C;+40 °C)
CPSC-26/EFSRC-432	B08K315142122		3/4" NPT	1.30	(-20 °C;+40 °C)
CPSC-26/EFSRC-432	B08K315142132		3/4" UNI-6125	1.30	(-20 °C;+40 °C)
CPC-26/EFSRC-D-220	B08H315221112		M25X1,5	1.15	(-20 °C;+40 °C)
CPC-26/EFSRC-D-220	B08H315221122		3/4" NPT	1.15	(-20 °C;+40 °C)
CPC-26/EFSRC-D-220	B08H315221132		3/4" UNI-6125	1.15	(-20 °C;+40 °C)
CPSC-26/EFSRC-D-320	B08K315231112		M25X1,5	1.20	(-20 °C;+40 °C)
CPSC-26/EFSRC-D-320	B08K315231122		3/4" NPT	1.20	(-20 °C;+40 °C)
CPSC-26/EFSRC-D-320	B08K315231132		3/4" UNI-6125	1.20	(-20 °C;+40 °C)
CPC-26/EFSRC-C-220	B08H315321112		M25X1,5	1.15	(-20 °C;+40 °C)
CPC-26/EFSRC-C-220	B08H315321122		3/4" NPT	1.15	(-20 °C;+40 °C)
CPC-26/EFSRC-C-220	B08H315321132		3/4" UNI-6125	1.15	(-20 °C;+40 °C)
CPSC-26/EFSRC-C-320	B08K315331112		M25X1,5	1.30	(-20 °C;+40 °C)
CPSC-26/EFSRC-C-320	B08K315331122		3/4" NPT	1.30	(-20 °C;+40 °C)
CPSC-26/EFSRC-C-320	B08K315331132		3/4" UNI-6125	1.30	(-20 °C;+40 °C)

FLAMEPROOF

EPKZM Series - Circuit breaker enclosure - Copper free aluminium



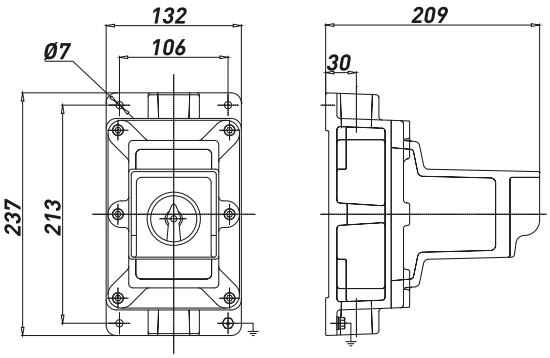
EPKZM Series enclosures, made of aluminium with low content of copper RAL6003 painted, are used to house motor protector circuit breakers up to 63A.

These boxes are suitable for hazardous areas of industrial plants for indoor and outdoor applications.

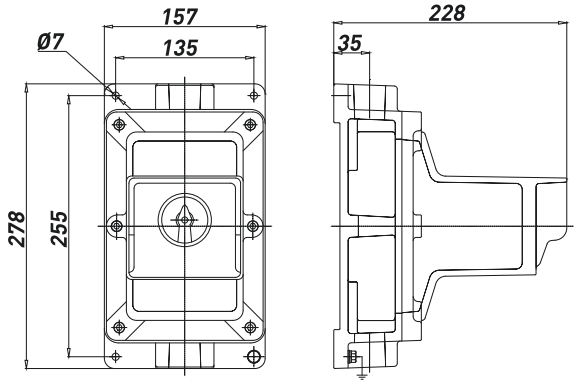
TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66/IP67
Ambient temperature range	-30°C to +55°C
Approvals	Certified 02ATEX0027X TR CU
Marking	II 2 GD Ex d IIB T6 Gb Ex tb IIIC T85°C Db IP66/67
Surface treatment	Painted by green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Thread	N° 2 entries Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Internal anticondensate painting Traffolyte/Stainless steel certificate label Hot deep galvanized steel or Stainless Steel AISI316 stand/canopy.

Dimensions EPKZM



EPKZM-3



EPKZM-4

EPKZM Series enclosures

TYPE	CODE	ENTRIES	WEIGHT [Kg]
EPKZM-3 - RED/YELLOW HANDLE 55X55	B010332100023	1" UNI-6125	3.25
EPKZM-3 - BLACK HANDLE	B010331100023	1" UNI-6125	3.25
EPKZM-3 - RED/YELLOW HANDLE 55X55	B010332100022	1" NPT	3.25
EPKZM-3 - BLACK HANDLE	B010331100022	1" NPT	3.25
EPKZM-3 - RED/YELLOW HANDLE 55X55	B010332100021	M32X1,5	3.25
EPKZM-3 - BLACK HANDLE	B010331100021	M32X1,5	3.25
EPKZM-4 - RED/YELLOW HANDLE 72X72	B010343100023	1" UNI-6125	4.60
EPKZM-4 - BLACK HANDLE	B010341100023	1" UNI-6125	4.60
EPKZM-4 - RED/YELLOW HANDLE 72X72	B010343100022	1" NPT	4.60
EPKZM-4 - BLACK HANDLE	B010341100022	1" NPT	4.60
EPKZM-4 - RED/YELLOW HANDLE 72X72	B010343100021	M32X1,5	4.60
EPKZM-4 - BLACK HANDLE	B010341100021	M32X1,5	4.60

Above codes refer to standard empty boxes. For complete motor protector circuit breakers is necessary to ask to the Sales Office.

FLAMEPROOF

Ex d components are available in a wide range of operators/pilot lights PL series and selectors PSRC series; allow numerous combinations with our CP../CPS.. EFDCN/EFSRC series.

PL.. series includes standard push buttons, emergency push buttons, key selector switches, pilot lights; mechanical operators allow the assembling of a maximum of four contacts.

PSRC.. series includes on-load switches, change over switches, step switches and selector customized upon request on the base of customer specification.

SPARES & ACCESSORIES

IP rating	IP66/IP67
Ambient temperature range	-50°C to +60°C
Approvals	IMQ 09ATEX0019U
Marking	II 2 GD Ex d IIC Ex tD A21 IP66/IP67
Barrel thread	Metric M32x1,5
Option	Version with AISI 316 L external hexagonal ring



PL.. Series momentary push buttons

CODE SPARE PART	CODE COMPONENT CERTIFICATE	TYPE	COLOUR	WEIGHT (Kg)
B130210100021	B131210100020	PLA-10 PUSH BUTTON	BLACK	0.15
B130210200021	B131210B00020	PLA-20 PUSH BUTTON	RED	0.15
B130210300021	B131210300020	PLA-30 PUSH BUTTON	GREEN	0.15
B130210400021	B131210400020	PLA-40 PUSH BUTTON	BLUE	0.15
B130210500021	B131210500020	PLA-50 PUSH BUTTON	YELLOW	0.15
B130210600021	B131210600020	PLA-60 PUSH BUTTON	WHITE	0.15

Contacts are not included



PL.. Series lockable momentary push buttons

CODE SPARE PART	CODE COMPONENT CERTIFICATE	TYPE	COLOUR	WEIGHT (Kg)
B130220100021	B131220100020	PLB-10 PIN-LOCKABLE PUSH BUTTON	BLACK	0.18
B130220200021	B131220200020	PLB-20 PIN-LOCKABLE PUSH BUTTON	RED	0.18
B130220300021	B131220300020	PLB-30 PIN-LOCKABLE PUSH BUTTON	GREEN	0.18

Contacts are not included

PL.. Series Mushroom push buttons





CODE SPARE PART	CODE COMPONENT CERTIFICATE	TYPE	COLOUR	WEIGHT (Kg)
B130230200021	B131230200020	PLC-S NC/NO MUSHROOM PUSH BUTTON TWIST TO RELEASE	RED	0.21
B130231200021	B131231200020	PLC-S NO/NO MUSHROOM PUSH BUTTON TWIST TO RELEASE	RED	0.21
B130232200021	B131232200020	PLC-S NC/NC MUSHROOM PUSH BUTTON TWIST TO RELEASE	RED	0.21
B130240200021	B131240200020	PLC-S-F NC/NO MUSHROOM PUSH BUTTON WITH KEY	RED	0.15
B130241200021	B131241200020	PLC-S-F NC/NC MUSHROOM PUSH BUTTON WITH KEY	RED	0.15
B130242200021	B131242200020	PLC-S-F NO/NO MUSHROOM PUSH BUTTON WITH KEY	RED	0.15
B130250200021	B131250200020	PLC-I MOMENTARY MUSHROOM PUSH BUTTON	RED	0.15

Contacts are not included

PL.. Series Key selector switches



CODE SPARE PART	CODE COMPONENT CERTIFICATE	TYPE	KEY WITHDRAWAL	WEIGHT (Kg)
B130270100021	B131270100020	PLF-10 NO/NC - KEY SELECTOR SWITCH	0	0.20
B130271100021	B131271100020	PLF-10 NO/NO - KEY SELECTOR SWITCH	0	0.20
B130272100021	B131272100020	PLF-10 NC/NC - KEY SELECTOR SWITCH	0	0.20
B130270200021	B131270200020	PLF-10 NO/NC - KEY SELECTOR SWITCH	0-1	0.20
B130271200021	B131271200020	PLF-10 NO/NO - KEY SELECTOR SWITCH	0-1	0.20
B130272200021	B131272200020	PLF-10 NC/NC - KEY SELECTOR SWITCH	0-1	0.20

Contacts are not included

PL.. Series mechanical operators

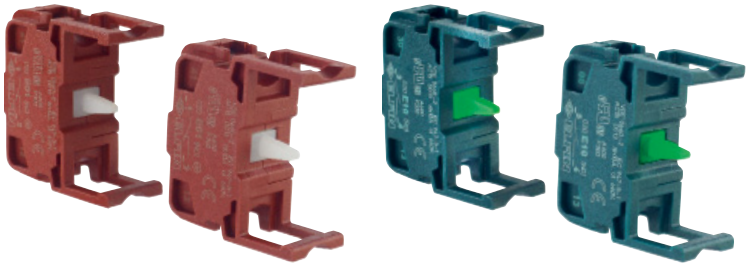




CODE SPARE PART	CODE COMPONENT CERTIFICATE	TYPE	COLOUR	WEIGHT (Kg)
B130280210021	B131280210020	PLC-RIP - RESTORE PB M32X1,5	BLACK	0.10
B130280220021	B131280220020	PLC-RIP - RESTORE PB M32X1,5	RED	0.10
B130280230021	B131280230020	PLC-RIP - RESTORE PB M32X1,5	GREEN	0.10
B130280100021	B131280100020	PLC-R - RESET PB M12X1,75	-	0.10

PL.. Series Contacts

CODE	TYPE	WEIGHT (Kg)
B130700099000	NC CONTACT - PL.. SERIES	0.006
B130700100000	NO CONTACT - PL.. SERIES	0.006



Rated insulated voltage: 660 V AC/DC
Rated thermal current (ith): 6 A
Rated output power:

CAT AC15											CAT DC13						
Tension Ue	V	24	48	60	110	220	380	400	500	600	Tension Ue	V	24	48	60	110	220
Current Ie	A	10	8	6	6	3	2	1,5	1,5	1,2	Current Ie	A	2,5	1,4	1	0,6	0,3





PL.. Series Pilot lights

CODE SPARE PART	CODE COMPONENT CERTIFICATE	TYPE	COLOUR
B130260100021	B131260A00020	PLD-10 PILOT LIGHT	WHITE
B130260200021	B131260200020	PLD-20 PILOT LIGHT	RED
B130260300021	B131260300020	PLD-30 PILOT LIGHT	GREEN
B130260400021	B131260400020	PLD-40 PILOT LIGHT	YELLOW
B130260500021	B131260500020	PLD-50 PILOT LIGHT	BLUE

Suitable for LED lamp 3W max. or incandescent lamp 5W max., Vmax.DC 220V, Vmax.AC 380V





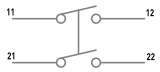
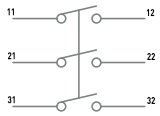
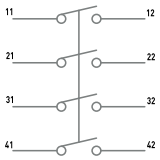
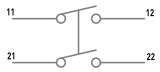
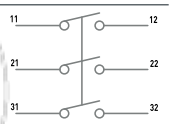
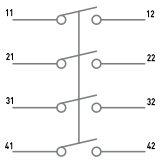
PL.. series Lamps

CODE	TYPE	VOLTAGE	COLOUR
B130700025000	LED LAMP 12V-R	12V	RED
B130700026000	LED LAMP 12V-V		GREEN
B130700027000	LED LAMP 12V-G		YELLOW
B130700028000	LED LAMP 12V-B		WHITE
B130700030000	LED LAMP 24V-R	24V	RED
B130700029000	LED LAMP 24V-V		GREEN
B130700031000	LED LAMP 24V-G		YELLOW
B130700032000	LED LAMP 24V-B		WHITE
B130700291000	LED LAMP 24V-BL		BLUE
B130700043000	LED LAMP 48V-R	48V	RED
B130700042000	LED LAMP 48V-V		GREEN
B130700044000	LED LAMP 48V-G		YELLOW
B130700041000	LED LAMP 48V-B		WHITE
B130700033000	LED LAMP 110V-R	110V	RED
B130700034000	LED LAMP 110V-V		GREEN
B130700035000	LED LAMP 110V-G		YELLOW
B130700036000	LED LAMP 110V-B		WHITE
B130700045000	LED LAMP 110V-BL		BLUE
B130700037000	LED LAMP 220V-R	220V	RED
B130700038000	LED LAMP 220V-V		GREEN
B130700039000	LED LAMP 220V-G		YELLOW
B130700040000	LED LAMP 220V-B		WHITE
B130700333000	LED LAMP 220V-BL		BLUE
B130700359000	LED LAMP 400V-R	400V	RED
B130700358000	LED LAMP 400V-V		GREEN
B130700360000	LED LAMP 400V-G		YELLOW
B130700350000	LED LAMP 400V-B		WHITE
B130700361000	LED LAMP 400V-BL		BLUE

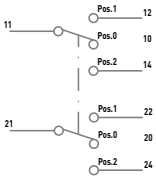
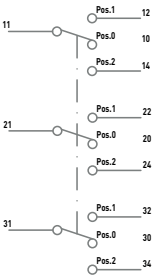
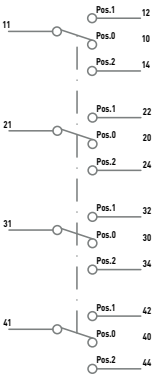




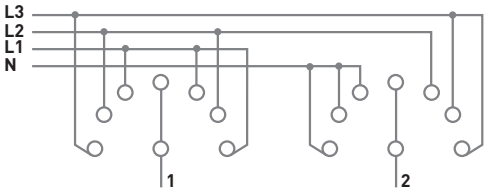
PSRC.. Series On-load switches

CODE SPARE PART	CODE COMPONENT CERTIFICATE	TYPE	N° OF POLES	AMPERE A	WEIGHT (Kg)	DIAGRAM
B130311200001	B131311200001	PSRC-120 - ON LOAD SWITCH	1	20	0.13	
B130312200001	B131312200001	PSRC-220 - ON LOAD SWITCH	2	20	0.16	
B130313200001	B131313200001	PSRC-320 - ON LOAD SWITCH	3	20	0.20	
B130314200001	B131314200001	PSRC-420 - ON LOAD SWITCH	4	20	0.20	
B130311320001	B131311320001	PSRC-132 - ON LOAD SWITCH	1	32	0.20	
B130312320001	B131312320001	PSRC-232 - ON LOAD SWITCH	2	32	0.20	
B130313320001	B131313320001	PSRC-332 - ON LOAD SWITCH	3	32	0.25	
B130314320001	B131314320001	PSRC-432 - ON LOAD SWITCH	4	32	0.25	

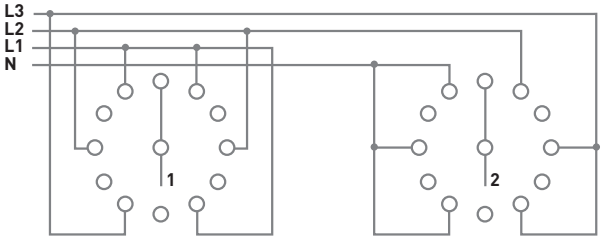
PSRC.. Series Step switch

CODE SPARE PART	CODE COMPONENT CERTIFICATE	TYPE	N° OF POLES	AMPERE A	WEIGHT (Kg)	DIAGRAM
B130321200001	B131321200001	PSRC-C 120 - STEP SWITCH	1	20	0.13	
B130322200001	B131322200001	PSRC-C 220 - STEP SWITCH	2	20	0.20	
B130323200001	B131323200001	PSRC-C 320 - STEP SWITCH	3	20	0.25	
B130324200001	B131324200001	PSRC-C 420 - STEP SWITCH	4	20	0.30	
B13035B000001	B13135B000001	PSRC-C VOLTMETER 7 POS.	-	-		SEE BELOW
B13035C000001	B13135C000001	PSRC-C VOLTMETER 12 POS.	-	-		SEE BELOW
B13034A000001	B13134A000001	PSRC-C AMPERMETER 4 POS.	-	-		SEE BELOW

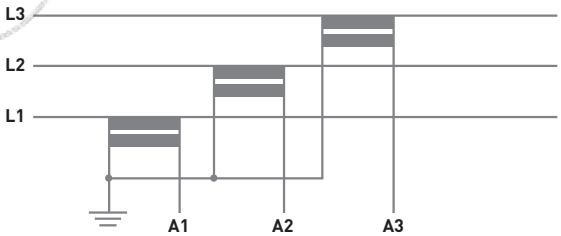
Voltmeter selector switch 7 pos.

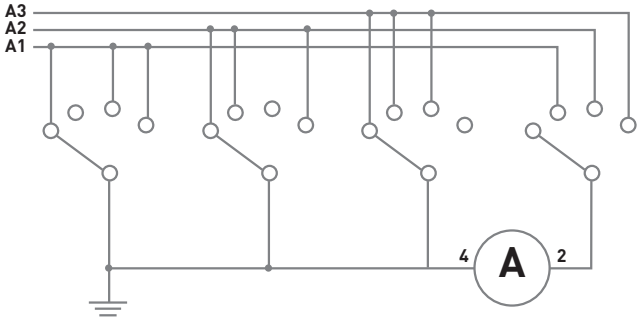


Voltmeter selector switch 12 pos.

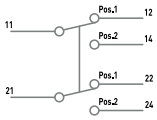
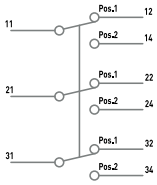


Ammeter selector switch 4 pos.





PSRC.. Series Change-over switch

CODE SPARE PART	CODE COMPONENT CERTIFICATE	TYPE	N° OF POLES	AMPERE A	WEIGHT (Kg)	DIAGRAM
B130331200001	B131331200001	PSRC-D 120 - CHANGE OVER SWITCH	1	20	0.13	
B130332200001	B131332200001	PSRC-D 220 - CHANGE OVER SWITCH	2	20	0.20	
B130333200001	B131333200001	PSRC-D 320 - CHANGE OVER SWITCH	3	20	0.25	

PSRC Series Rated operational characteristic

AMPERE A	AC-1 IE MAX. (A)	AC-3 Ie MAX. (A)	AC-11 Ie MAX. (A)	Ui max. (V)
20	25	12	9	690
32	36	22	16	690

Special versions can be manufactured upon request. For further information contact our Sales Office.



JUNCTION BOXES



P.112

Increased safety

- AQ../AR.. Series - Glassfiber reinforced polyester 112
- AQ../AR.. Series - Copper free aluminium low thickness 114
- AQ../AR.. Series - Copper free aluminium high thickness 116
- SB Series - AISI 316 L Stainless steel 118
- B2X Series - Glassfiber reinforced polyester..... 120

P.122

Flameproof

- CP../CPS.. Series - Copper free aluminium 122
- ECR-3 - Drain valve.....124

INCREASED SAFETY

AQ../AR.. Series - Glassfiber reinforced polyester

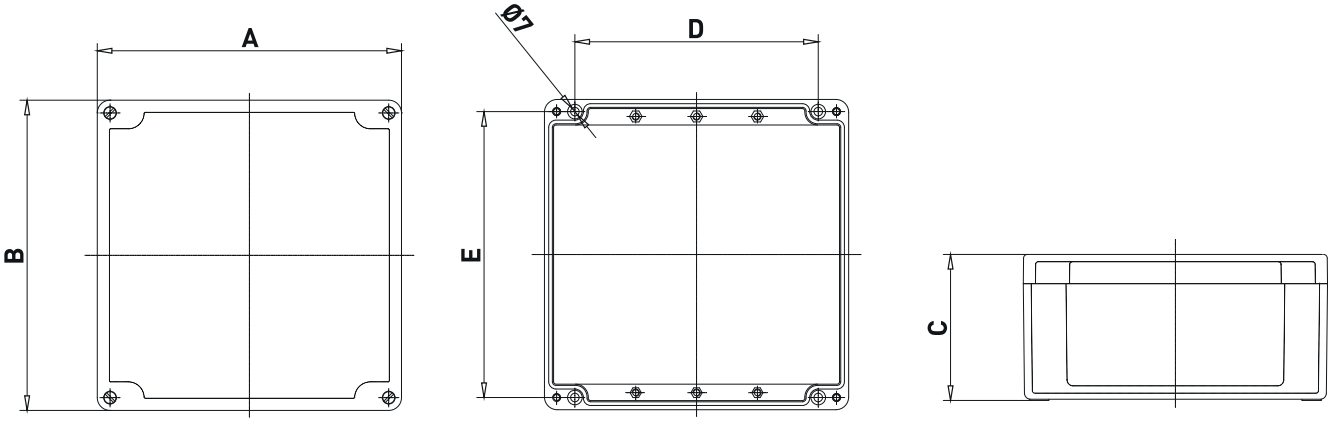


AQ../AR.. Series are used to house Ex e and Ex i terminals. Maximum number of terminals changes on the base of terminals section, enclosure operating temperature and required temperature class. They are ideally suited for chemical agents environments. Sea water corrosion resistance and extremes of low and high temperatures.

TECHNICAL FEATURES

Material	GRP (Glassfiber reinforced polyester)
IP rating	IP66
Ambient temperature range	-50°C to +60°C (ATEX) -50°C to +60°C (IECEx - up to +95°C for some "special" models)
Approvals	IMQ 08 ATEX 028X IMQ 16 ATEX 004U IECEx IMQ 15.0002X IECEx IMQ 15.0010U TR CU
Marking	II 2 GD Ex e IIC Gb/Ex ia Ga IIC T(**) Ex tb IIIC T(**) Db IP66 ** T6/T85°C, T5/T100°C, T4/T135°C
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Hinges Drain/breather valve Traffolyte/Stainless steel certificate label Internal mounting plate Earth continuity plates Passing through earth bolt

Dimensions AQ../AR..



AQ../AR.. Series junction boxes

CODE	TYPE	DIMENSIONS [mm]					WEIGHT [Kg]
		A	B	C	D	E	
B030200001000	AQ-080806P	75	80	55	45	48	0,23
B030200002000	AR-081106P	75	110	55	45	98	0,295
B030200003000	AQ-121209P	120	122	90	82	106	0,75
B030200004000	AR-122209P	120	220	90	82	204	1,06
B030200005000	AQ-161609P	160	160	90	110	140	1,29
B030200006000	AR-162609P	160	260	90	110	240	1,71
B030200007000	AR-163609P	160	360	90	110	340	2,15
B030200009000	AQ-252612P	250	255	120	200	235	2,65
B030200010000	AR-254012P	250	400	120	200	380	3,65
B030200013000	AR-256012P	250	600	120	200	580	5,235
B030200014000	AQ-414012P	405	400	120	355	380	5,58
	AQ-414020P	405	400	200	355	380	
	AR-406025P *	400	600	250			

*The standard enclosure is complete with hinges on the long side.
The codes refer to the empty and undrilled enclosures, sold under component certificate.
For complete junction boxes is necessary to ask to the Sales Office.

Maximum number of entries on sides

TYPE	M20/1/2"		M25/3/4"		M32/1"		M40/1" 1/4		M50/1" 1/2		M63/2"	
	A	B	A	B	A	B	A	B	A	B	A	B
AQ-080806P	1	1	-	1	-	-	-	-	-	-	-	-
AR-081106P	1	2	-	2	-	-	-	-	-	-	-	-
AQ-121209P	2	2	1	2	1	1	1	1	-	-	-	-
AR-122209P	2	5	1	4	1	3	1	3	-	-	-	-
AQ-161609P	3	3	2	3	1	2	1	1	-	-	-	-
AR-162609P	3	5	2	5	1	4	1	3	-	3	-	-
AR-163609P	3	8	2	7	1	6	1	5	-	4	-	-
AQ-252612P	8	10	8	10	3	7	3	4	2	3	2	2
AR-254012P	8	18	8	16	3	5	3	5	3	5	2	4
AR-256012P	8	25	8	24	3	10	3	8	2	6	2	6
AQ-414012P	16	18	6	14	5	6	5	5	4	5	3	6

INCREASED SAFETY

AQ../AR.. Series - Copper free aluminium low thickness

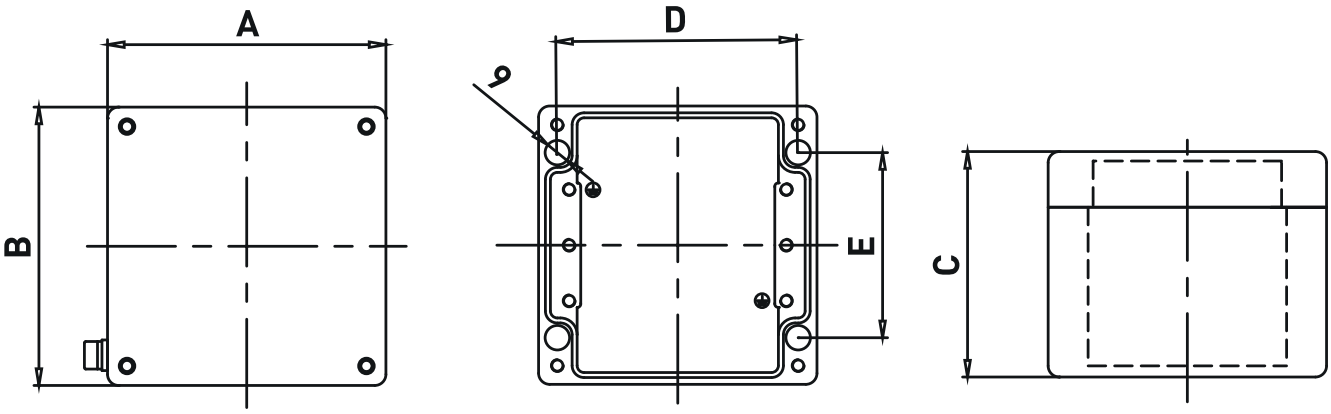


AQ../AR.. Series are used to house Ex e and Ex i terminals. Maximum number of terminals changes on the base of terminals section, enclosure operating temperature and required temperature class. They are ideally suited for chemical agents environments. Sea water corrosion resistance and extremes of low and high temperatures.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-50°C to +60°C (ATEX) -50°C to +60°C (IECEx - up to +95°C for some "special" models)
Approvals	IMQ 08 ATEX 028X IMQ 16 ATEX 004U IECEx IMQ 15.0002X IECEx IMQ 15.0010U TR CU
Marking	II 2 GD Ex e IIC Gb/Ex ia Ga IIC T(**) Ex tb IIIC T(**) Db IP66 ** T6/T85°C, T5/T100°C, T4/T135°C
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Surface treatment	Standard with polyester powder coating RAL 7001
Accessories available upon request	Hinges Drain/breather valve Traffolyte/Stainless steel certificate label Internal mounting plate Earth continuity plates Passing through earth bolt

Dimensions AQ../AR..



AQ../AR.. Series junction boxes

CODE	TYPE	DIMENSIONS [mm]					WEIGHT [Kg]
		A	B	C	E	F	
B020200001000	AQ-080806AL	80	75	57	52	63	0,3
B020200002000	AR-081306AL	80	125	57	51	112	0,375
B020200003000	AR-081806AL	80	175	57	52	162	0,55
B020200004000	AR-081808AL	80	175	80	52	162	
B020200005000	AR-082508AL	80	250	80	51	237	
B020200007000	AR-101508AL	100	150	80	64	134	
B020200006000	AQ-101008AL	100	100	81	66	86	0,62
B020200008000	AQ-121208AL	120	122	81	83	106	0,94
B020200011000	AR-122209AL	120	220	90	82	204	1,43
B020200014000	AQ-161609AL	160	160	90	110	140	1,5
B020200017000	AR-162410AL	160	240	100	123	225	
B020200016000	AR-163609AL	160	360	91	110	340	
B020200021000	AR-202311AL	202	232	110	180	180	2,44
B020200022000	AR-232811AL	230	280	110	181	261	2,99
	AR-233312AL	231	331	120	178	311	

The codes refer to the empty and undrilled enclosures, sold under component certificate.
For complete junction boxes is necessary to ask to the Sales Office.
Other sizes are available upon request.

INCREASED SAFETY

AQ../AR.. Series - Copper free aluminium high thickness

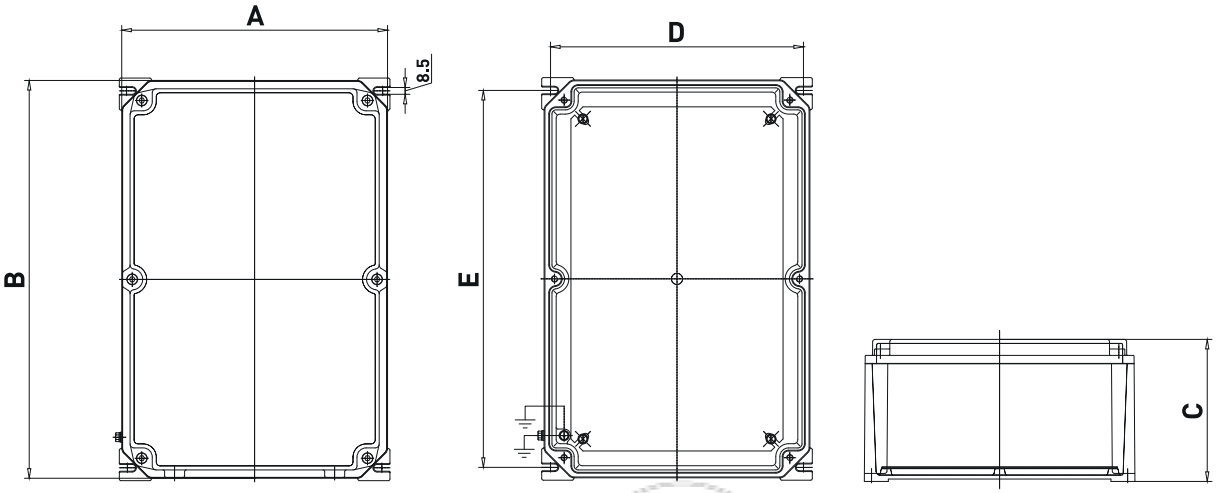


AQ../AR.. Series are used to house Ex e and Ex i terminals. Maximum number of terminals changes on the base of terminals section, enclosure operating temperature and required temperature class. They are ideally suited for chemical agents environments. Sea water corrosion resistance and extremes of low and high temperatures.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP65
Ambient temperature range	-50°C to +60°C
Approvals	IMQ 08 ATEX 028X TR CU
Marking	II 2 GD Ex e IIC Gb/Ex ia Ga IIC T(**) Ex tb IIIC T(**) Db IP65 ** T6/T85°C, T5/T100°C, T4/T135°C
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Hardware and screws	AISI304 Stainless steel external hardware and screws
Accessories available upon request	Hinges Drain/breather valve Traffolyte/Stainless steel certificate label Internal mounting plate Passing through earth bolt

Dimensions AQ../AR..



AQ../AR.. Series junction boxes

TYPE	DIMENSIONS [mm]					WEIGHT [Kg]
	A	B	C	D	E	
AR-8A AL S	330	660	177	305	635	16,7
AR-8A AL L	580	840	205	560	810	36
AR-8A AL (HTH)	495	495	171	470	470	17,3
AR-8 AL (HTH)	330	495	171	320	470	12,4
AQ-8 AL A (HTH)	332	332	178	310	315	8

For complete junction boxes is necessary to ask to the Sales Office.

Maximum number of entries on sides

TYPE	M20/1/2"		M25/3/4"		M32/1"		M40/1" 1/4		M50/1" 1/2		M63/2"	
	A	B	A	B	A	B	A	B	A	B	A	B
AR-8A AL S	34	50	20	28	17	25	7	10	6	8	4	7
AR-8A AL L	48	76	30	48	24	39	14	22	12	20	5	8
AR-8A AL (HTH)	36	36	20	20	18	18	7	7	6	6	5	5
AR-8 AL (HTH)	24	36	14	20	12	18	5	7	4	6	3	5
AQ-8A AL (HTH)	31	31	18	18	16	16	7	7	5	5	4	4

INCREASED SAFETY

SB Series - AISI 316 L Stainless steel

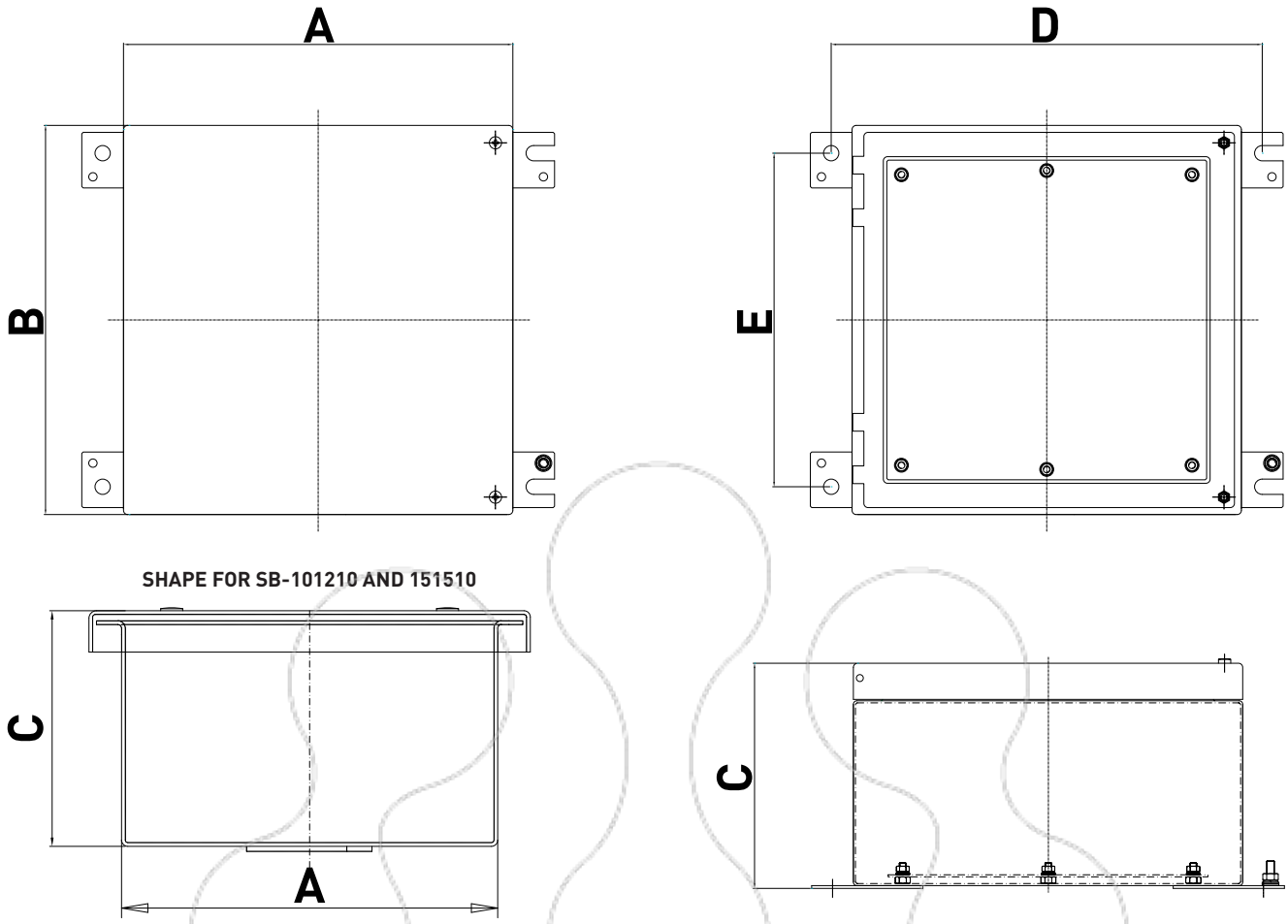


- SB are used to house Ex e and Ex i terminals,breather/drain device and pass-trough earth terminal, standard enclosure mounts hinges on the vertical side.
- Maximum numbers of terminals changes on the base of the terminals section and current, enclosure operating temperature and required temperature class.
- They are ideally suited for chemical agents environments, ON and OFF-SHORE applications and any other industries where an explosive atmosphere may be present.
- The only range full custom size from 100x120x100 mm to 910x1140x500 mm.
- Off shelf sizes: the best lead time on the market at competitive pricing.
- Our internal workshop allows flexibility in meeting any customer requirements.
- Optional polycarbonate windows to display indoor devices.
- Max ambient temperature up to +95 °C (IECEx).

TECHNICAL FEATURES

Material	Stainless steel AISI 316 L with thickness 1,5 mm		
IP rating	IP66/IP67		
Shock resistance	IK10		
Ambient temperature range	From -50°C to +60°C (ATEX) and up to +150°C (high temperature version) From -50°C to +95°C (IECEx) and up to +150°C (high temperature version)		
Approvals	IMQ 08 ATEX 028X	IMQ 16 ATEX 004U (empty enclosure)	TÜV CY 18 ATEX 0206009 (for high temperature version)
	IECEx IMQ 15.0002X	IECEx IMQ 15.0010U (empty enclosure)	IECEx EXA 18.0001 (for high temperature version)
	TR CU		
	UL listed: NEMA TYPE 1, 4, 4X, 12 - UL 508A - CSA C22.2 No. 14-13		
Marking	II 2 GD		High temperature version: II 2 G
	Ex e IIC T(**) Gb/Ex ia IIC T(**) Gb/Ex ib IIC T(**) Gb		Ex eb IIC T6...T3 Gb or Ex eb ia(*) IIC T6...T3 Gb or Ex ia(*) IIC T6...T3 Gb
	Ex tb IIIC T(**) Db IP66/67		IP55
	** T6/T85°C, T5/T100°C, T4/T135°C		*: or ib
Compliance	IECEx/Atex: IEC/EN : 60079-0/60079-1/60079-7/60079-11/60079-18/60079-31		
Gaskets	Silicon rubber (suitable for use between -70°C/+200°C)		
Surface treatment	Acid treatment (pickling)		
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester.		
Entries	From M20x1.5mm to M80x1.5mm		
Hardware and screws	Screws and accessories in stainless steel AISI 316 L		
Accessories available upon request	Electropolish treatment/Side gland plate/Without hinges/Drain/Breather valve/Traffolyte/ stainless steel certificate label/Internal mounting plate/Locking facility/Passing trought earth bolt/Other material thickness starting from 1,2 mm		

Dimensions SB



SB Series - AISI 316 L Stainless steel

TYPE	DIMENSIONS [mm]					CABLE ENTRIES W/O FLANGES		CABLE ENTRIES W. FLANGES		MAX N° TERMINALS		WEIGHT [Kg]
	A	B	C	D	E	SIDE A	SIDE B	SIDE A	SIDE B	2,5 mm²	4 mm²	
SB-101210*	100	120	100	150	-	4	4	-	-	7	6	1,5
SB-151510**	150	150	100	180	-	6	6	-	-	13	11	2,5
SB-202010	200	200	100	230	160	9	9	-	-	22	19	3,0
SB-202016	200	200	160	230	160	15	15	8	8	22	19	3,5
SB-204016	200	400	160	230	360	15	30	8	18	66	57	4,8
SB-282816	280	280	160	310	240	21	21	12	12	76	64	5,2
SB-282827	280	280	270	310	240	46	46	33	33	76	64	7,5
SB-302016	300	200	160	330	160	21	15	12	8	44	38	5,0
SB-383816	380	380	160	410	340	30	30	18	18	114	96	8,1
SB-383827	380	380	270	410	340	67	67	51	51	114	96	10,1
SB-384516	380	450	160	410	410	30	36	18	20	171	144	10,7
SB-385716	380	570	160	410	530	30	45	18	28	228	192	16,4
SB-575716	570	570	160	600	530	45	45	28	28	372	312	16,4
SB-575730	570	570	300	600	530	116	116	95	95	372	312	21,4
SB-577620	570	760	200	600	720	73	98	54	74	558	468	21,7
SB-769520	760	950	200	790	910	98	125	74	94	990	834	32,9
SB-272713	270	270	130	300	230	14	14	6	6	36	30	4,5
SB-353516	350	350	160	380	310	27	27	16	16	102	86	5,6
SB-142013	140	200	130	170		6	10	2	4	11	9	4,0
SB-202713	200	270	130	230	230	10	14	4	6	36	30	7,0
SB-273513	270	350	130	300	310	14	18	6	8	72	60	9,5
SB-355016	350	500	160	380	460	27	39	16	24	160	134	13,0
SB-505016	500	500	160	530	460	39	39	24	24	240	201	14,5

Upon request, any dimension between 100x120x100 and 910x1140x500 can be manufactured.
*The enclosure is without hinges and complete with TS15x5 Omega rail welded on a removable mounting plate.
** The enclosure is without hinges and complete with TS35x7,5 Omega rail welded on the back.

INCREASED SAFETY

B2X Series - Glassfiber reinforced polyester

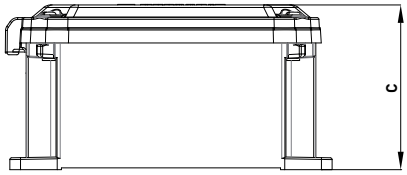


- New High resistance GRP Enclosures, developed and specially designed to host wide range of terminals, multiple power sockets and disconnectors. Tested and certified to be installed and used in extreme site conditions, offshore applications and hazardous areas (Zones 1, 2, 21 & 22 under ATEX and IECEx).
- Their smart and compact design make them easy to install and use in small and hard access spaces.
- B2X certification offers different kind of protection modes in order to satisfy wide range of application (increased safety Ex e, intrinsically safe Ex ia , Explosion proof Ex de in case of Socket junction box combination).

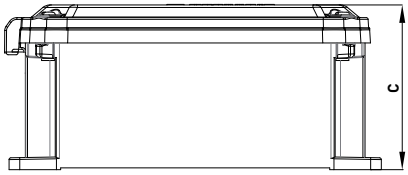
TECHNICAL FEATURES

Material	GRP (Glassfiber reinforced polyester)
IP rating	IP66/IP67
Ambient temperature range	-55°C to +60°C
Approvals	LCIE 16 ATEX 3057 X IECEx LCIE 16.0046X
Marking	II 2 GD Ex e/Ex ia or ib/Ex e ia or e ib IIC T(**) Gb Ex tb IIIC T** °C Db IP66/67 ** T6/T80°C, T5/T95°C, T4/T105°C
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory
Accessories in standard	Moulded hinges

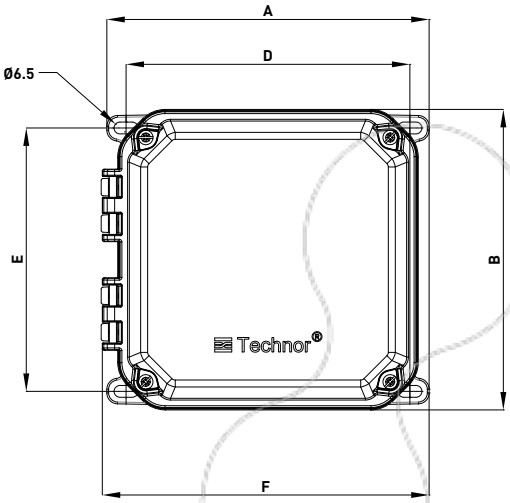
Dimensions B2X

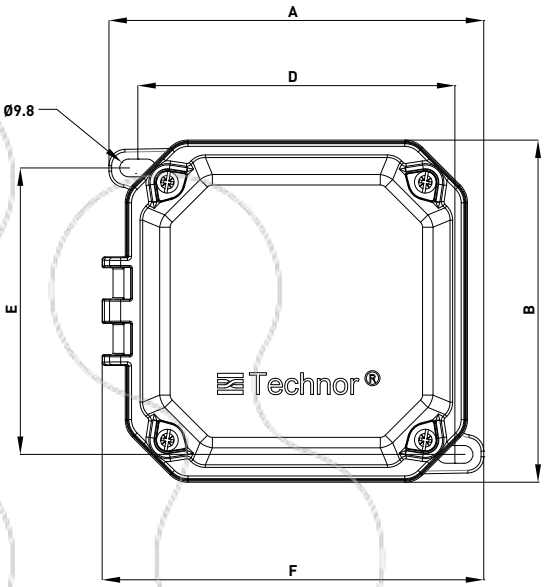


DRAWING A



DRAWING B





TYPE	DIMENSIONS [mm]						DRAWING
	A	B	C	D	E	F	
B2X1J	138	126	91	117	105,5	141	A
B2X2J	178	166	91	157	145,5	181	B

FLAMEPROOF

CP../CPS.. Series - Copper free aluminium

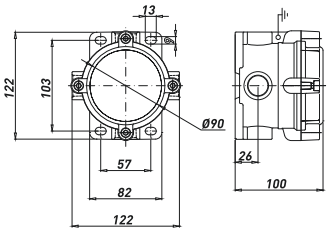


The CP../CPS.. range of enclosures, used for terminals wiring, grants Ex d or Ex e mode of protection.
Boxes are manufactured in aluminium with low content of copper and complete with threaded hubs suitable for cable glands or conduit, connection does not affect the internal void, which remains available for terminals wiring.
Internal and external screws are made of AISI316 stainless steel.
This series is taylor made on the base of customer specification, including quantity and type of operators.
Based on the customer's needs and certificate requirements, our technical department will advise and select the most suitable combination.
These boxes are suitable for hazardous areas of industrial plants for indoor and outdoor applications.

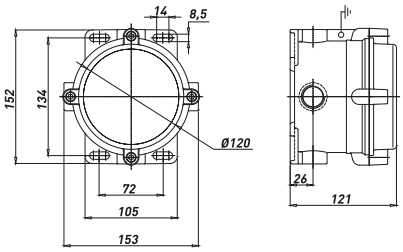
TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-50°C to +60°C (ATEX) -60°C to +60°C (IECEx)
Approvals	Certified 03ATEX0009 IECEx BKI 15.0002 TR CU
Marking	STANDARD II 2 GD Ex d IIC T(*) Gb Ex tb IIIC T(*) Db IP66 * T6/T85°C, T5/T100°C, T4/T135°C
Surface treatment	Painted by green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Thread	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Internal anticondensate painting Traffolyte/Stainless steel certificate label Terminals
Maximum number of terminals	(15 x 2,5 mm^2/12 x 4 mm^2/8 x 6 mm^2)

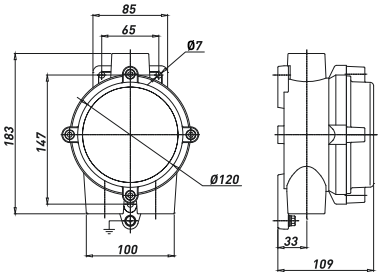
Dimensions CP../CPS..



CPC/CPT/CPX



CPSC/CPST/CPSX



CPSG

CP.. Series (Selection table)

N° OF ENTRIES	TYPE
2	CPC-26 2XM25
	CPC-26 2X3/4"GK
	CPC-26 2X3/4"NPT
3	CPT-26 3XM25
	CPT-26 3X3/4"GK
	CPT-26 3X3/4"NPT
4	CPX-26 4XM25
	CPX-26 4X3/4"GK
	CPX-26 4X3/4"NPT

For complete junction boxes is necessary to ask to the Sales Office.

CPS.. Series (Selection table)

N° OF ENTRIES	TYPE
2	CPSC 2XM25
	CPSC 2XM32
	CPSC 2X3/4" GK
	CPSC 2X3/4" NPT
	CPSC 2X1" GK
	CPSC 2X1" NPT
3	CPST 3XM25
	CPST 3XM32
	CPST 3X3/4" GK
	CPST 3X3/4" NPT
	CPST 3X1" GK
	CPST 3X1" NPT
3	CPSG 3XM25
	CPSG 3XM32
	CPSG 3X3/4" GK
	CPSG 3X3/4" NPT
	CPSG 3X1" GK
	CPSG 3X1" NPT
4	CPSX 4XM25
	CPSX 4XM32
	CPSX 4X3/4" GK
	CPSX 4X3/4" NPT
	CPSX 4X1" GK
	CPSX 4X1" NPT

For complete junction boxes is necessary to ask to the Sales Office.

FLAMEPROOF

ECR-3 - Drain valve



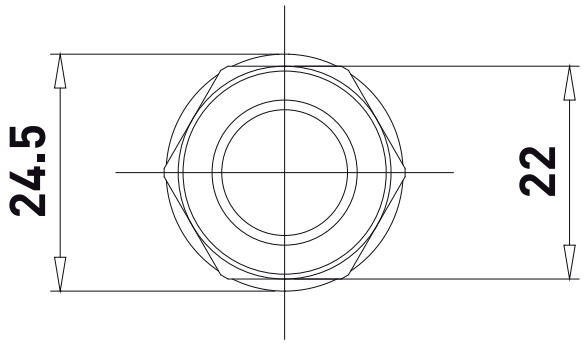


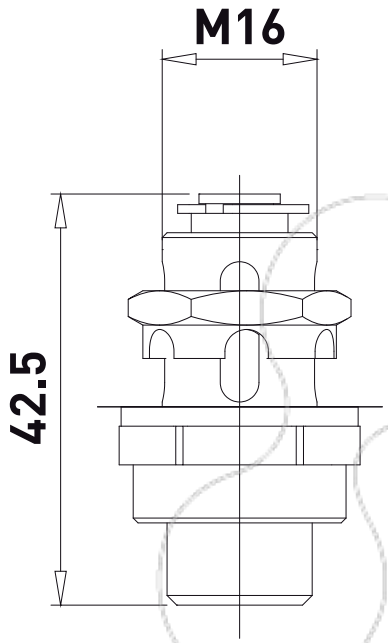
- Drain valve ECR3 is a device intended for use to evacuate the water generated due to condensation inside the enclosure.
- Drain valve is assembled in the lowest part or side part of the enclosure because the water is accumulated in bottom part of enclosure.
- Water will come out with the presence of drain valve device.
- Made of stainless steel or galvanized steel.
- Gasket is in aluminium.
- O-ring is in silicon rubber.
- IP66/IP67 in closed position (IP44 when installed on the bottom or on the side of enclosure*)
  *for detail see instruction note

TECHNICAL FEATURES

Material	Stainless steel AISI 316 L
IP rating	IP66/IP67 in closed position and IP44 in open position.
Ambient temperature range	-50°C +105°C
Approvals	IMQ 14 ATEX 019U – IECEx IMQ 14.0008U
Marking	Ex II 2GD – Ex e IIC Gb – Ex tb IIIC IP66/67
Standard compliance	EN60079-0:2012; EN60079-7:2007; EN60079-31:2009 IEC60079-0:2011; IEC60079-7:2006-07; IEC60079-31:2008
Zones	1; 21
Gaskets	Silicone gasket (continuous use temperature -60 ° C + 220 ° C)
Entries	Need to hole M16 x 1.5 6H or diameter from 16 mm to 16.5 mm and seal metal aluminum EN-AW 1050.

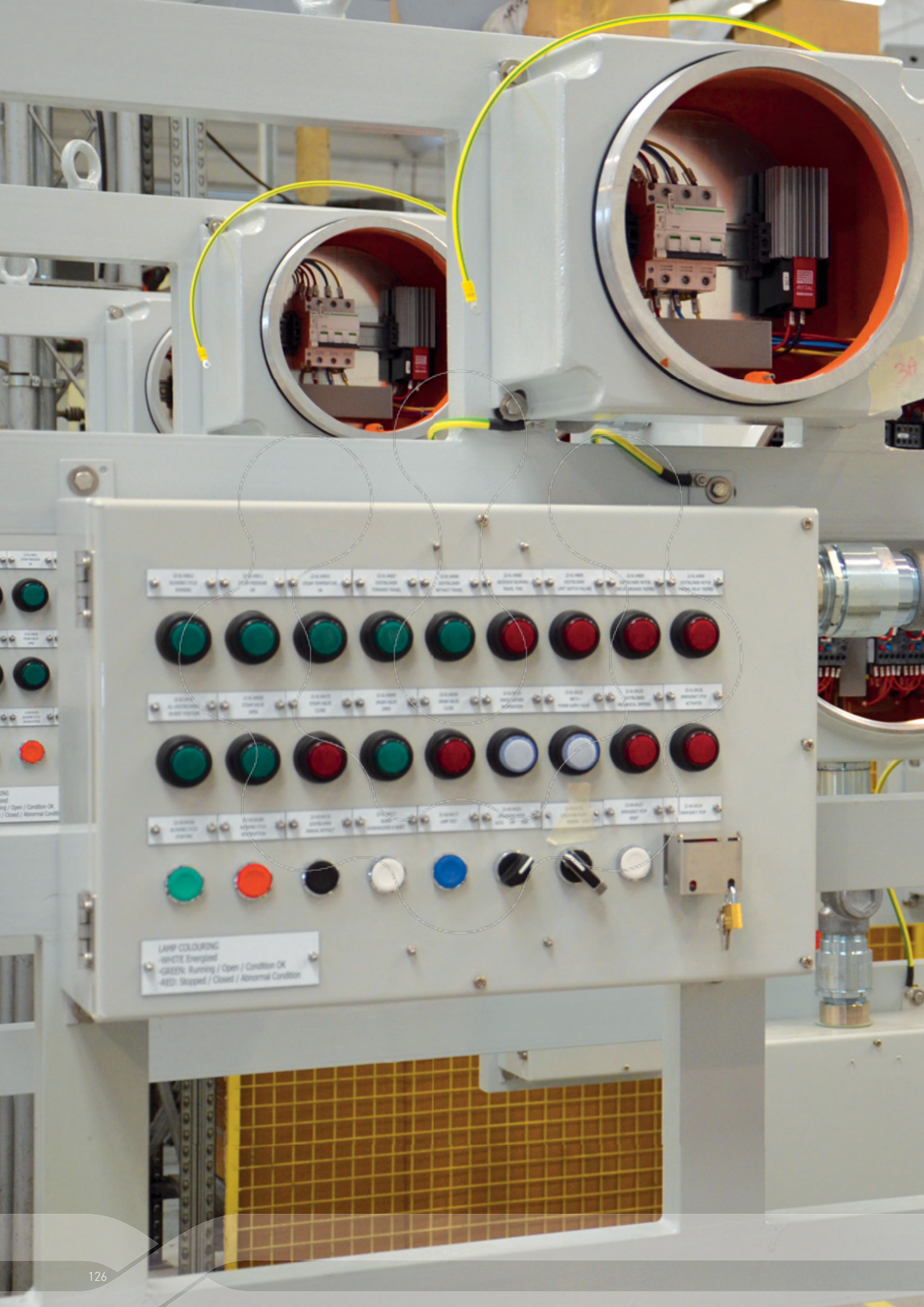
Dimensions ECR-3





Drain valve ECR-3

CODE	TYPE
C010212005000	ECR 3 DRAIN VALVE


LAMP COLOURING
-WHITE Energized
-GREEN: Running / Open / Condition OK
-RED: Stopped / Closed / Abnormal Condition

FLAMEPROOF ENCLOSURES



P.128

Pressurized cabinets

- QPREX Series - Stainless steel AISI 316 L..... 128

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Gas Group IIB + H_2

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Gas Group IIC

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- GUB../QL Series - Copper free aluminium or Stainless Steel AISI 316 L.....140
- GUB/EMH.. Series with window - Copper free aluminium or Stainless Steel AISI 316 L 142
- CPS../EMH.. Series with window - Copper free aluminium.....144

PRESSURIZED CABINETS

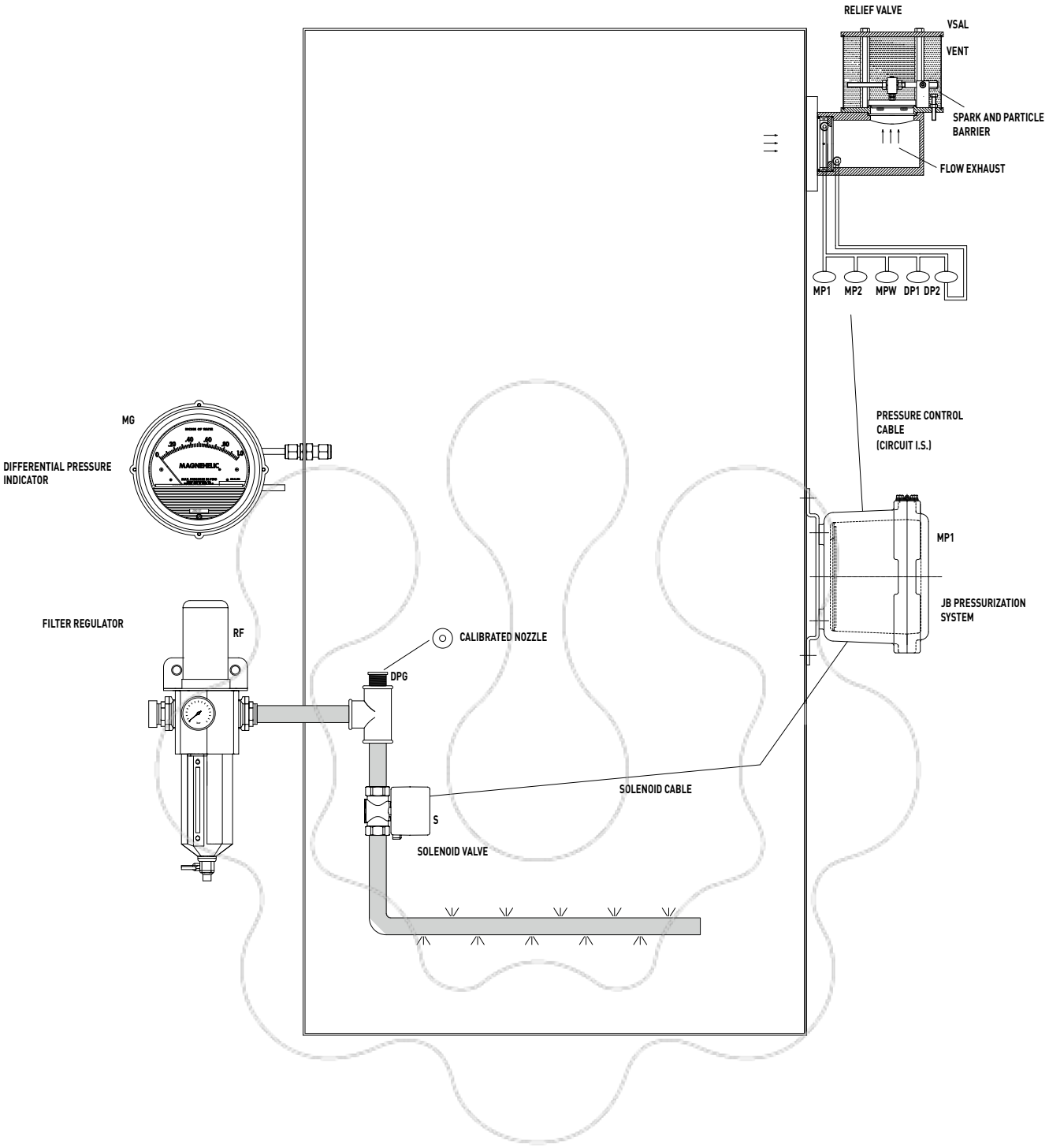
QPREX Series - Stainless steel AISI 316 L



- Modular building system allows to realize customized volume up to 10m^3. One of the system that offers the widest possibilities on the market. A single system of pressurization and washing can manage multiple modules in series.
- New gasket technology minimizes the dispersion of inactive gas, increasing efficiency of pressurized system and reduce operating costs
- QPREX pressurized panels, because of the continuous influx of purging gas, prevents the build up of heat and moisture and provide a greater life cycle of the equipment.
- Quick access: easy opening and maintenance, when the doors open the system disconnects; when the doors are closed again, after the washing cycle, the system will start again automatically.
- In QPREX can be mounted non Ex components.
- Logic TEX1 first company with SIL2 (Safety Integrity Level).

TECHNICAL FEATURES

Material	AISI 316 L, AISI 304 or painted sendzimir steel
IP rating	IP65
Ambient temperature range	From -50°C to +60°C
Approvals	TÜV 15 ATEX 158015 (pxb type of protection) TÜV 15 ATEX 158016 (pzc type of protection) IECEx TUN 15.0019 (pxb and pzc types of protection)
Marking	ATEX : Ex px/pz [ia Ga] IIC T6 or T5 or T4 Gb/Gc Ex px/pz [ia Ga] IIIC T85°C or T135°C Db/Dc IECEx Ex pxb/pzc [ia Ga] IIC T6 or T5 or T4 Gb/Gc Ex pxb/pzc [ia Ga] IIIC T85°C or T100°C or T135°C Db/Dc
Gaskets	EPDM or SILICONE
Dimensions	From 0,6 m^3 to 10 m^3
Tension	Up to 24 kVac/1500 Vdc
Frequency	Up to 1000Hz
Power	Up to 1250kva
Pressurisation system	Technor Italsmea TEX1 (zone 1- SIL2 *) or TEX 2 (Zone 2) . Available with component certificate
Climatization	Vortex, Air conditioner, Cooling/heating water systems, Anticondensate heater.
Note	* SIL: Safety Integrity Level


RELIEF VALVE
VSAL
VENT
SPARK AND PARTICLE BARRIER
FLOW EXHAUST
MP1 MP2 MPW DP1 DP2
MG
DIFFERENTIAL PRESSURE INDICATOR
PRESSURE CONTROL CABLE (CIRCUIT I.S.)
MP1
JB PRESSURIZATION SYSTEM
FILTER REGULATOR
RF
CALIBRATED NOZZLE
DPG
SOLENOID CABLE
S
SOLENOID VALVE

GAS GROUP IIB + H_2

EJB.. Series - Copper free aluminium



EJB.. series enclosures offers Ex d IIB or IIB+H2 mode of protection.
They are suitable for hazardous areas of industrial plants for indoor and outdoor applications

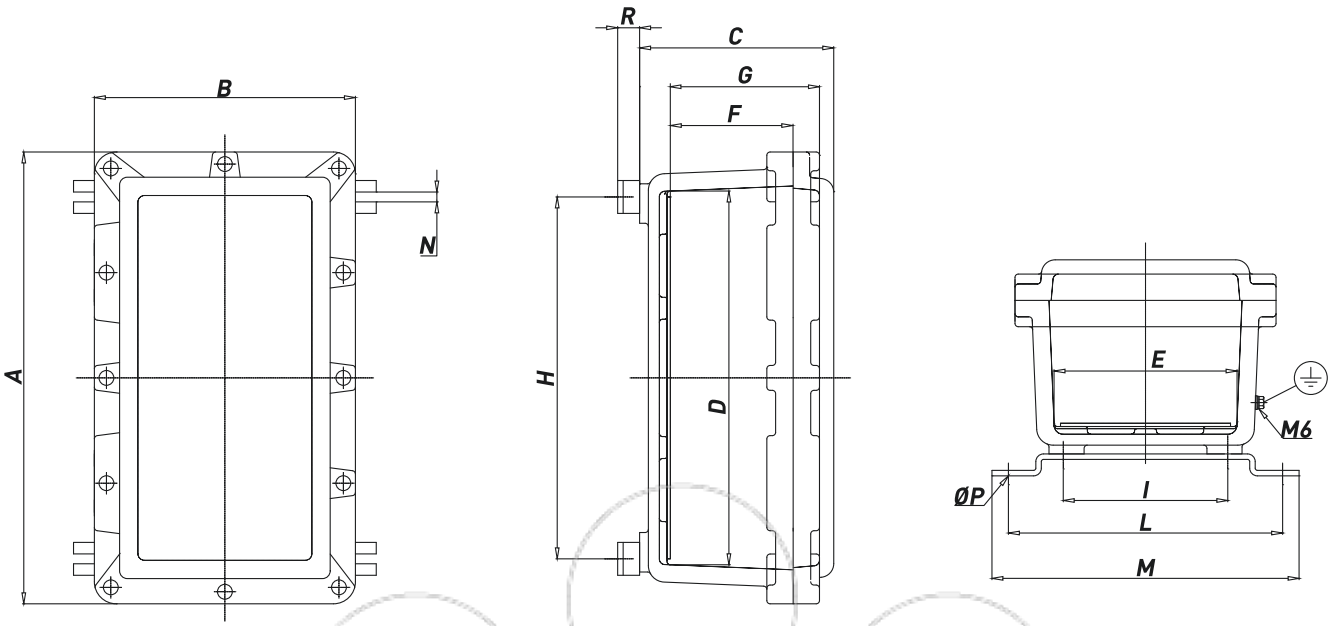
They can be equipped with following components:

- Push buttons and mechanical operators PL.. Series;
- Rotating switches PSRC Series;
- Signalling lamps PL.. Series;
- Potentiometers;
- Rotating handles SRC-1 or SRC-10;
- Measurement instruments;
- Electric and electronic equipment;
- Windows made of tempered glass.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP65, IP66, IP67 with flanged joint coated with silicone grease
Ambient temperature range	-50 °C up to +60 °C
Approvals	Certified INERIS 00ATEX0021X TR CU IECEx INE 10.0015X INMETRO PESO
Marking	II 2 GD Ex d IIB T(**) Gb or Ex d IIB+H2 T(**) Gb Ex tb IIIC T(**) Db IP65 or 66 or 67 ** T6/T85°C, T5/T100°C, T4/T135°C, T3/T200°C II 2(1) GD Ex d [ia Ga] IIB T6 Gb or Ex d [ia Ga] IIB+H2 T6 Gb Ex tb [ia Da] IIIC T85°C Db IP65 or 66 or 67 II 2(2) GD Ex d [ib] IIB T6 Gb or Ex d [ib] IIB+H2 T6 Gb Ex tb [ib] IIIC T85°C Db IP65 or 66 or 67
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Hardware and screws	AISI316 Stainless steel external screws
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Mounting brackets Drain/breather valve Hinges Door handle Internal anticondensate painting Traffolyte/Stainless steel certificate label

Dimensions EJB Aluminium



EJB.. Series enclosures c/w internal mounting plate - ALUMINIUM

TYPE	DIMENSIONS [mm]														WEIGHT [Kg]	COVER ENTRIES	MOUNTING PLATE
	A	B	C	D	E	F	G	H	I	L	M	N	ØP	R			
EJB-2	298	238	174	230	168	95	135	205	140	250	280	9	M6	20	10.07	12	160 X 220
EJB-3	412	238	177	340	167	85	136	330	150	250	280	9	M8	20	13.40	18	155 X 330
EJB-3A	412	238	199	340	167	85	158	330	150	250	280	9	M8	20	13.50	9	155 X 330
EJB-4	418	302	175	335	220	90	132	300	190	300	320	9	M8	20	17.50	20	210 X 325
EJB-5	480	300	232	392	209	125	182	350	185	300	320	9	M8	20	20.50	22	200 X 385
EJB-6	483	408	238	387	310	130	186	355	280	390	420	9	M8	20	33.00	28	300 X 380
EJB-8	634	365	254	530	262	140	204	495	225	340	370	9	M8	20	36.05	36	250 X 520
EJB-9	535	468	257	426	363	140	204	410	340	440	470	12	M10	20	40.00	34	350 X 420
EJB-10	750	366	292	630	250	185	234	580	205	330	360	12	M10	20	48.50	34	240 X 620
EJB-11	596	505	267	483	394	130	204	445	360	480	510	12	M10	20	53.30	44	380 X 470
EJB-12	805	455	310	690	335	170	243	640	285	425	450	14	M12	20	73.00	54	325 X 625
EJB-13	832	607	314	723	500	115	236	630	405	580	620	14	M12	20	106.00	76	463 X 683
EJB-13A	832	607	400	723	500	205	322	630	405	580	620	14	M12	20	124.00	76	463 X 683

For complete junction boxes is necessary to ask to the Sales Office.
Note: For installations in either Zone 1 or volume up to 2dm^3, barrier glands are required. Please refer to EN-60079-14.

Maximum number of entries on sides A/B

TYPE	EJB-2	EJB-3	EJB-3A	EJB-4	EJB-5	EJB-6	EJB-8	EJB-9	EJB-10	EJB-11	EJB-12	EJB-13	EJB-13A
M20/1/2"	9/7	14/7	14/7	14/9	27/13	24/18	35/16	27/24	57/21	32/27	61/28	48/32	81/54
M25/3/4"	9/5	7/3	7/3	7/4	14/7	14/10	29/13	24/18	46/18	21/27	40/18	27/18	54/36
M32/1"	4/3	6/3	6/3	6/4	12/5	12/9	18/8	12/10	29/10	14/12	32/16	23/16	35/24
M50/1" 1/2	3/2	4/2	4/2	4/3	5/2	5/4	7/3	9/9	14/5	6/5	16/7	9/6	18/10
M63/2"	2/1	3/1	3/1	3/2	4/2	4/3	6/2	4/4	12/4	5/4	12/5	8/5	14/9
M75/2" 1/2	-	-	-	-	3/1	3/2	4/2	3/3	5/2	4/3	6/3	6/4	6/4
M80/3"	-	-	-	-	2/1	2/2	3/1	2/2	4/1	3/2	4/2	5/3	5/3

GAS GROUP IIB + H_2

EJB.. Series - Stainless steel AISI 316 L



EJB.. series enclosures offers Ex d IIB or IIB+H2 mode of protection.
They are suitable for hazardous areas of industrial plants for indoor and outdoor applications.
They can be equipped with following components:

- Push buttons and mechanical operators PL.. Series;
- Rotating switches PSRC Series;
- Signalling lamps PL.. Series;
- Potentiometers;
- Rotating handles SRC-1 or SRC-10;
- Measurement instruments;
- Electric and electronic equipment;
- Windows made of tempered glass.

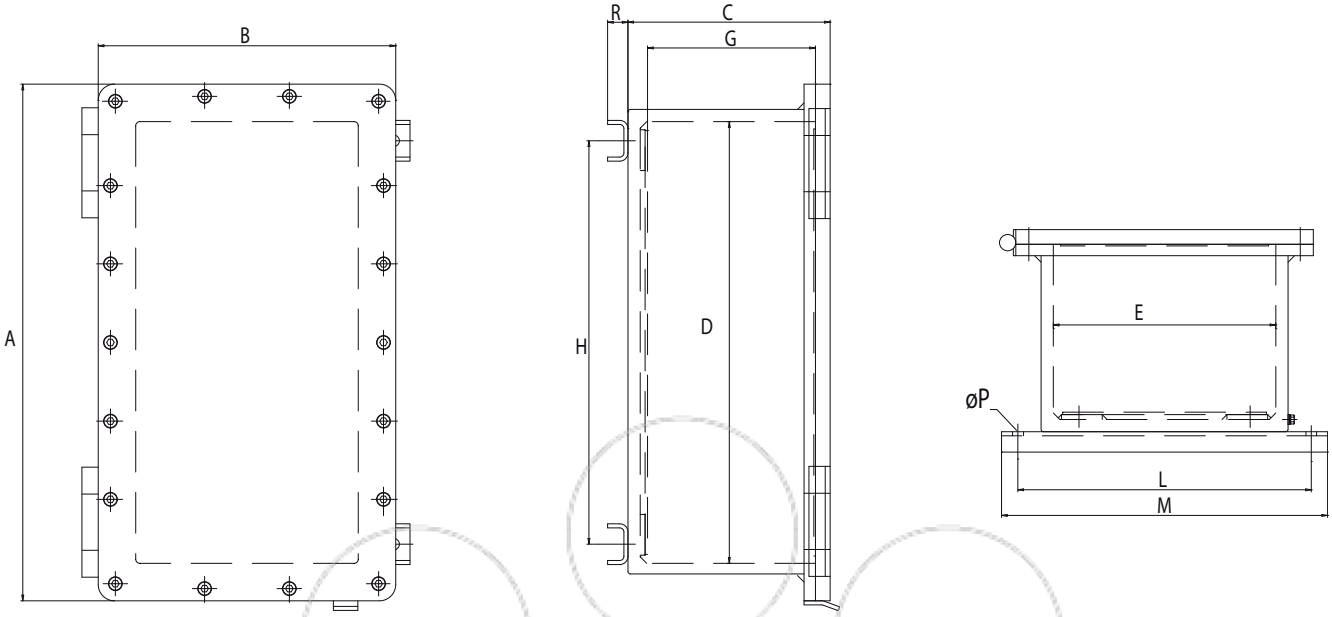
They can be used in different applications such as push button stations, instrument housing, lighting distribution panels, power distribution panels, heat tracing panels, motor protection, etc.

TECHNICAL FEATURES

Material	Stainless steel AISI 316 L
IP rating	IP65, IP66, IP67 with flanged joint coated with silicone grease
Ambient temperature range	-50 °C up to +60 °C
Approvals	Certified INERIS 00ATEX0021X TR CU IECEx INE 10.0015X INMETRO PESO
Marking	II 2 GD Ex d IIB T(**) Gbor Ex d IIB+H2 T(**) Gb Ex tb IIIC T(**) Db IP65 or 66 or 67 ** T6/T85°C, T5/T100°C, T4/T135°C, T3/T200°C II 2(1) GD Ex d [ia Ga] IIB T6 Gb or Ex d [ia Ga] IIB+H2 T6 Gb Ex tb [ia Da] IIIC T85°C Db IP65 or 66 or 67 II 2(2) GD Ex d [ib] IIB T6 Gb or Ex d [ib] IIB+H2 T6 Gb Ex tb [ib] IIIC T85°C Db IP65 or 66 or 67
Surface treatment	Unpainted
Entries	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Hardware and screws	AISI316 Stainless steel external screws
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Drain/breather valve Door handle External polyurethane painting cycle Internal anticondensate painting Traffolyte/Stainless steel certificate label

Dimensions EJB Stainless steel

The sides A, B & C of our EJB enclosures can be increased/decrease of 15% covering the dimensions from 298 x 238 x 175mm up to 950 x 690 x 440mm



EJB.. Series enclosures c/w internal mounting plate, mounting brackets, hinges - AISI 316 L

TYPE	DIMENSIONS [mm]											WEIGHT [Kg]	COVER ENTRIES	INT. MOUNTING PLATE
	A	B	C	D	E	G	H	L	M	ØP	R			
EJB-2	298	238	175	238	178	136	205	250	280	10	20	35	12	160 X 220
EJB-3	412	238	175	350	176	136	330	250	280	10	20	45	18	155 X 330
EJB-4	418	302	175	345	230	136	300	305	340	12	20	55	20	210 X 325
EJB-5	480	300	222	405	225	183	350	295	330	12	20	70	22	200 X 385
EJB-6	483	408	229	399	324	166	355	410	450	14	25	93	28	300 X 380
EJB-8	634	365	248	542	273	204	495	360	400	14	25	114	36	250 X 520
EJB-9	535	468	248	443	376	204	400	460	500	14	25	118	34	350 X 420
EJB-11	596	505	247	496	405	203	445	490	530	14	25	139	44	380 X 470
EJB-12	805	455	300	705	355	252	640	440	480	16	30	181	54	325 X 675
EJB-13	832	608	300	732	508	252	667	605	650	18	30	235	76	463 X 683
EJB-13A	832	608	390	732	508	342	667	605	650	18	30	262	76	463 X 683

Maximum number of entries on sides A/B

TYPE	EJB-2	EJB-3	EJB-3A	EJB-4	EJB-5	EJB-6	EJB-8	EJB-9	EJB-10	EJB-11	EJB-12	EJB-13	EJB-13A
M20/1/2"	9/7	14/7	14/7	14/9	27/13	24/18	35/16	27/24	57/21	32/27	61/28	48/32	81/54
M25/3/4"	9/5	7/3	7/3	7/4	14/7	14/10	29/13	24/18	46/18	21/27	40/18	27/18	54/36
M32/1"	4/3	6/3	6/3	6/4	12/5	12/9	18/8	12/10	29/10	14/12	32/16	23/16	35/24
M50/1" 1/2	3/2	4/2	4/2	4/3	5/2	5/4	7/3	9/9	14/5	6/5	16/7	9/6	18/10
M63/2"	2/1	3/1	3/1	3/2	4/2	4/3	6/2	4/4	12/4	5/4	12/5	8/5	14/9
M75/2" 1/2	-	-	-	-	3/1	3/2	4/2	3/3	5/2	4/3	6/3	6/4	6/4
M80/3"	-	-	-	-	2/1	2/2	3/1	2/2	4/1	3/2	4/2	5/3	5/3

GAS GROUP IIB + H_2

EJB.. Series – Galvanized carbon steel



EJB.. series enclosures offers Ex d IIB or IIB+H2 mode of protection.
They are suitable for hazardous areas of industrial plants for indoor and outdoor applications
They can be equipped with following components:

- Push buttons and mechanical operators PL.. Series;
- Rotating switches PSRC Series;
- Signalling lamps PL.. Series;
- Potentiometers;
- Rotating handles SRC-1 or SRC-10;
- Measurement instruments;
- Electric and electronic equipment;
- Windows made of tempered glass.

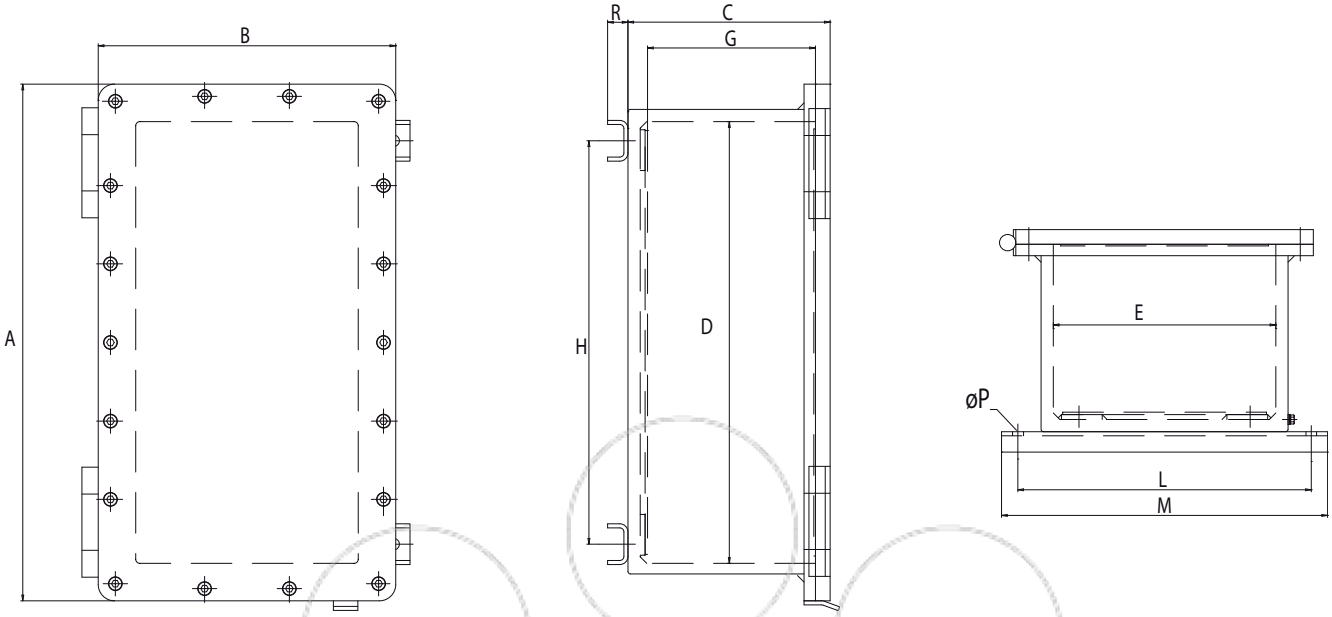
They can be used in different applications such as push button stations, instrument housing, lighting distribution panels, power distribution panels, heat tracing panels, motor protection, etc.

TECHNICAL FEATURES

Material	Galvanized carbon steel
IP rating	IP65, IP66, IP67 with flanged joint coated with silicone grease
Ambient temperature range	-50 °C up to +60 °C
Approvals	Certified INERIS 00ATEX0021X TR CU IECEx INE 10.0015X INMETRO PESO
Marking	II 2 GD Ex d IIB T(**) Gb or Ex d IIB+H2 T(**) Gb Ex tb IIIC T(**) Db IP65 or 66 or 67 ** T6/T85°C, T5/T100°C, T4/T135°C, T3/T200°C II 2(1) GD Ex d [ia Ga] IIB T6 Gb or Ex d [ia Ga] IIB+H2 T6 Gb Ex tb [ia Da] IIIC T85°C Db IP65 or 66 or 67 II 2(2) GD Ex d [ib] IIB T6 Gb or Ex d [ib] IIB+H2 T6 Gb Ex tb [ib] IIIC T85°C Db IP65 or 66 or 67
Surface treatment	Hot dip galvanization
Entries	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Hardware and screws	AISI316 Stainless steel external screws
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Drain/breather valve Door handle External polyurethane painting cycle Internal anticondensate painting Traffolyte/Stainless steel certificate label

Dimensions EJB Galvanized carbon steel

The sides A, B & C of our EJB enclosures can be increased/decrease of 15% covering the dimensions from 298 x 238 x 175mm up to 950 x 690 x 440mm



EJB.. Series enclosures c/w internal mounting plate, mounting brackets, hinges – Galvanized carbon steel

TYPE	DIMENSIONS [mm]											WEIGHT [Kg]	COVER ENTRIES	INT. MOUNTING PLATE
	A	B	C	D	E	G	H	L	M	ØP	R			
EJB-2	298	238	175	238	178	136	205	250	280	10	20	35	12	160 X 220
EJB-3	412	238	175	350	176	136	330	250	280	10	20	45	18	155 X 330
EJB-4	418	302	175	345	230	136	300	305	340	12	20	55	20	210 X 325
EJB-5	480	300	222	405	225	183	350	295	330	12	20	70	22	200 X 385
EJB-6	483	408	229	399	324	166	355	410	450	14	25	93	28	300 X 380
EJB-8	634	365	248	542	273	204	495	360	400	14	25	114	36	250 X 520
EJB-9	535	468	248	443	376	204	400	460	500	14	25	118	34	350 X 420
EJB-11	596	505	247	496	405	203	445	490	530	14	25	139	44	380 X 470
EJB-12	805	455	300	705	355	252	640	440	480	16	30	181	54	325 X 675
EJB-13	832	608	300	732	508	250	667	605	650	18	30	235	76	463 X 683
EJB-13A	832	608	390	732	508	342	667	605	650	18	30	262	76	463 X 683

Maximum number of entries on sides A/B

TYPE	EJB-2	EJB-3	EJB-3A	EJB-4	EJB-5	EJB-6	EJB-8	EJB-9	EJB-10	EJB-11	EJB-12	EJB-13	EJB-13A
M20/1/2"	9/7	14/7	14/7	14/9	27/13	24/18	35/16	27/24	57/21	32/27	61/28	48/32	81/54
M25/3/4"	9/5	7/3	7/3	7/4	14/7	14/10	29/13	24/18	46/18	21/27	40/18	27/18	54/36
M32/1"	4/3	6/3	6/3	6/4	12/5	12/9	18/8	12/10	29/10	14/12	32/16	23/16	35/24
M50/1" 1/2	3/2	4/2	4/2	4/3	5/2	5/4	7/3	9/9	14/5	6/5	16/7	9/6	18/10
M63/2"	2/1	3/1	3/1	3/2	4/2	4/3	6/2	4/4	12/4	5/4	12/5	8/5	14/9
M75/2" 1/2	-	-	-	-	3/1	3/2	4/2	3/3	5/2	4/3	6/3	6/4	6/4
M80/3"	-	-	-	-	2/1	2/2	3/1	2/2	4/1	3/2	4/2	5/3	5/3

SPARES & ACCESSORIES

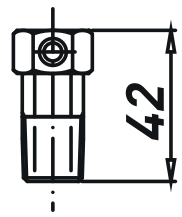
Wall mounting brackets

CODE	TYPE
B0A0100020000	MOUNTING BRACKETS FOR EJB-2 + SCREWS (STF-2)
B0A0100021000	MOUNTING BRACKETS FOR EJB-3 + SCREWS (STF-3)
B0A0100022000	MOUNTING BRACKETS FOR EJB-4/5 + SCREWS (STF-4/5)
B0A0100023000	MOUNTING BRACKETS FOR EJB-6 + SCREWS (STF-6)
B0A0100024000	MOUNTING BRACKETS FOR EJB-8 + SCREWS (STF-8)
B0A0100025000	MOUNTING BRACKETS FOR EJB-9 + SCREWS (STF-9)
B0A0100026000	MOUNTING BRACKETS FOR EJB-10 + SCREWS (STF-10)
B0A0100027000	MOUNTING BRACKETS FOR EJB-11 + SCREWS (STF-11)
B0A0100028000	MOUNTING BRACKETS FOR EJB-12 + SCREWS (STF-12)
B0A0100029000	MOUNTING BRACKETS FOR EJB-13 + SCREWS (STF-13)

Available upon request AISI 316 L made version

Drain/Breather valve

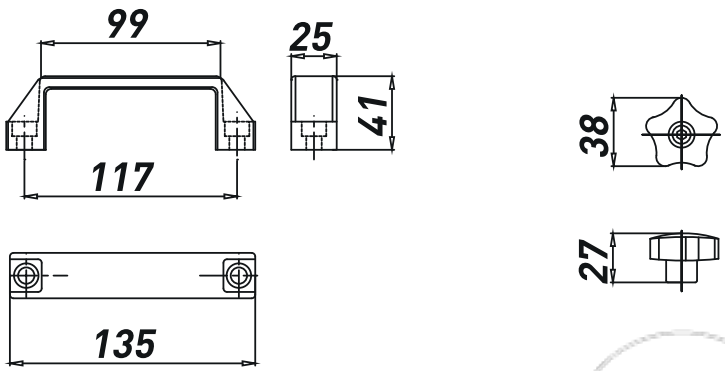
CODE	TYPE
C010200051000	ECR 1 VALVE





Door handles

CODE	TYPE
B0A0100049000	HANDLE FOR EJB (FROM 7 TO 13A) + SCREWS
B0A0100048000	KNOB FOR EJB (UP TO 6) + SCREWS

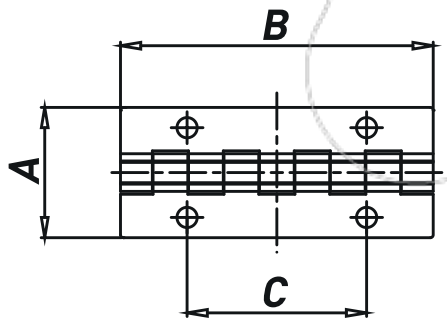


Hinges (for aluminium EJB Series)

CODE	TYPE
B0A0100081000	AISI 316 L HINGES 56X38MM + SCREWS
B0A0100043000	AISI 316 L HINGES 60X45MM + SCREWS
B0A0100045000	AISI 316 L HINGES 108X45MM + SCREWS

Selection table

HINGES L=56X38MM	HINGES L=60X45MM	HINGES L=108X45MM
EJB-2	EJB-6	EJB-12
EJB-3	EJB-8	EJB-13
EJB-3A	EJB-9	EJB-13A
EJB-4	EJB-10	
EJB-5	EJB-11	



Windows

The windows may have square, rectangular, circular shape with following dimensions:

- Square shape: side dimensionfrom 40 to 400mm
- Rectangular shape: long side dimension from 70 to 400mm; short side dimension from 40 to 200mm
- Circular shape: diameter from 70 to 250mm

As standard sizes we propose:

- Rectangular shape type B; 40mm x 70mm
- Rectangular shape type C; 40mm x 200mm
- Rectangular shape type D; 100mm x 270mm
- Rectangular shape type E; 175mm x 380mm
- Circular shape Ø 70mm, 85mm, 100mm, 120mm, 150mm, 170mm, 190mm, 230mm

Under IECEx certification, only some windows are available.
Please contact our Sales Office for more information.

GAS GROUP IIC

GUB.. Series - Copper free aluminium or Stainless steel AISI 316 L



GUB.. series enclosures offers Ex d IIC mode of protection.
They are suitable for hazardous areas of industrial plants for indoor and outdoor applications.
GUB.. QL version can be equipped with following components:

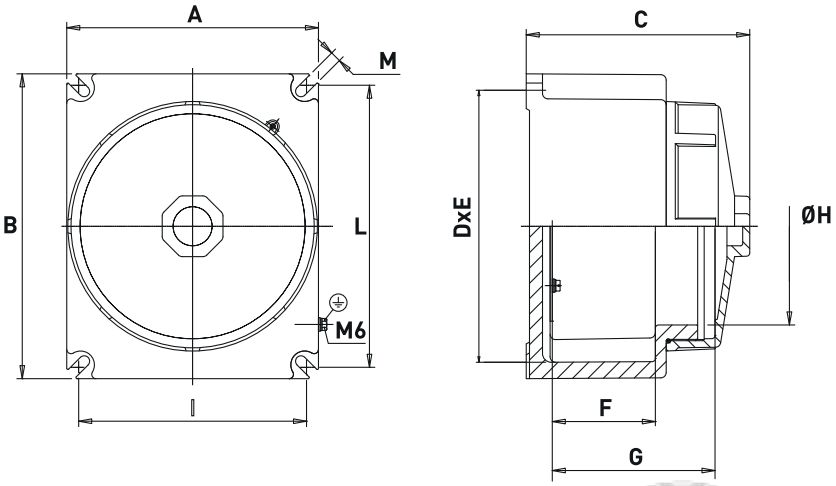
- Push buttons and mechanical operators PL.. Series;
- Rotating switches PSRC Series;
- Signalling lamps PL.. Series;
- Potentiometers;
- Rotating handles SRC-1 or SRC-10;
- Measurement instruments;
- Electric and electronic equipment;
- Windows made of tempered glass (EMH version).

They can be used in different applications such as push button stations, instrument housing, lighting distribution panels, power distribution panels, heat tracing panels, motor protection, etc.

TECHNICAL FEATURES

Material	Aluminium with low content of copper Stainless steel AISI 316 L (upon request) The sides A,B & C can be increased/decrease of 10%
IP rating	IP66
Ambient temperature range	-50°C to +55°C (ATEX) -60°C to +60°C (IECEx)
Approvals	Certified 00ATEX0033X IECEx BKI 15.0003 TR CU
Marking	II 2 GD Ex d IIC T(*) Gb Ex tb IIIC T(*) Db IP66 * T6/T85°C, T5/T100°C, T4/T135°C II 2(1) GD Ex d [ia Ga] IIC T6 Gb Ex tb [ia Da] IIIC T85°C Db IP66 II 2(2) GD Ex d [ib] IIC T6 Gb Ex tb [ib] IIIC T85°C Db IP66
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Drain/breather valve Internal anticondensate painting Traffolyte/Stainless steel certificate label Stainless steel construction

Dimensions GUB..



GUB Series enclosures c/w internal mounting plate - Aluminium

TYPE	DIMENSIONS [mm]											WEIGHT [Kg]
	A	B	C	D	E	F	G	ØH	I	L	M	
GUB-01	169	169	152	139	139	62	105	125	150	150	7	3.60
GUB-02	190	190	164	160	160	63	113	144	170	170	8	4.70
GUB-03	210	210	179	180	180	78	127	167	190	190	8	6.00
GUB-04	232	281	206	202	251	97	152	183	210	260	8	8.90
GUB-05	257	298	222	227	268	106	163	206	235	275	8	11.90
GUB-06	295	330	248	259	295	140	203	242	270	305	10	15.80

For complete junction boxes is necessary to ask to the Sales Office.

Note: For installations in either Zone 1 or in the presence of Group IIC gases, barrier glands are required. Please refer to EN-60079-14.

Maximum number of entries on sides A/B

TYPE	GUB-01	GUB-02	GUB-03	GUB-04	GUB-05	GUB-06
M20/1/2"	3/3	5/5	5/5	5/7	7/9	7/9
M25/3/4"	3/3	5/5	5/5	5/7	7/9	7/9
M32/1"	2/2	3/3	3/3	5/5	5/7	5/7
M50/1" 1/2	1/1	1/1	2/2	2/3	2/3	3/5
M63/2"	1/1	1/1	1/1	2/2	2/2	2/3
M75/2" 1/2	-	-	-	1/2	1/2	2/2
M80/3"	-	-	-	1/1	1/2	1/2

GAS GROUP IIC

GUB../QL Series - Copper free aluminium or Stainless Steel AISI 316 L



GUB.. series enclosures offers Ex d IIC mode of protection.
They are suitable for hazardous areas of industrial plants for indoor and outdoor applications.
GUB.. QL version can be equipped with following components:

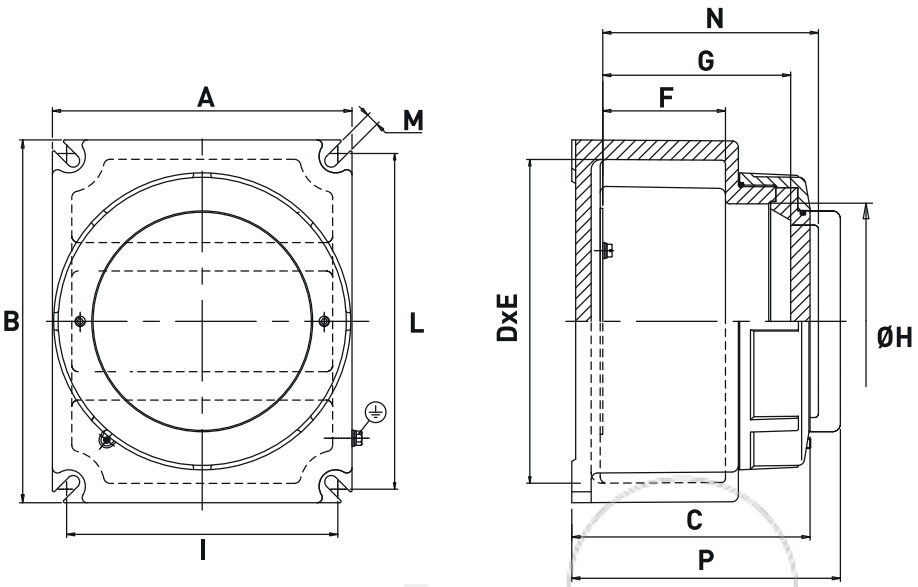
- Push buttons and mechanical operators PL.. Series;
- Rotating switches PSRC Series;
- Signalling lamps PL.. Series;
- Potentiometers;
- Rotating handles SRC-1 or SRC-10;
- Measurement instruments;
- Electric and electronic equipment;
- Windows made of tempered glass (EMH version).

They can be used in different applications such as push button stations, instrument housing, lighting distribution panels, power distribution panels, heat tracing panels, motor protection, etc.

TECHNICAL FEATURES

Material	Aluminium with low content of copper Stainless steel AISI 316 L (upon request) The sides A,B & C can be increased/decrease of 10%
IP rating	IP66
Ambient temperature range	-50°C to +55°C (ATEX) -60°C to +60°C (IECEx)
Approvals **(Complete enclosures)**	Certified 00ATEX0033X IECEx BKI 15.0003 TR CU
Marking	II 2 GD Ex d IIC T(*) Gb Ex tb IIIC T(*) Db IP66 * T6/T85°C, T5/T100°C, T4/T135°C II 2(1) GD Ex d [ia Ga] IIC T6 Gb Ex tb [ia Da] IIIC T85°C Db IP66 II 2(2) GD Ex d [ib] IIC T6 Gb Ex tb [ib] IIIC T85°C Db IP66
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Drain/breather valve Internal anticondensate painting Traffolyte/Stainless steel certificate label Stainless steel construction

Dimensions GUB../QL



GUB../QL Series enclosures c/w internal mounting plate - Aluminium

TYPE	DIMENSIONS [mm]													WEIGHT [Kg]	COVER ENTRIES
	A	B	C	D	E	F	G	ØH	I	L	M	N	P		
GUB-02 QL	190	190	139	160	160	63	104	144	170	170	8	143	179	4.70	3
GUB-03 QL	210	210	160	180	180	78	119	167	190	190	8	139	174	6.00	4
GUB-06 QL	295	330	236	259	195	140	186	242	270	305	10	-	-	15.80	10

For complete junction boxes is necessary to ask to the Sales Office.

Note: For installations in either Zone 1 or in the presence of Group IIC gases, barrier glands are required. Please refer to EN-60079-14.

Maximum number of entries on sides A/B

TYPE	GUB-02	GUB-03	GUB-06
M20/1/2"	5/5	5/5	7/9
M25/3/4"	5/5	5/5	7/9
M32/1"	3/3	3/3	5/7
M50/1" 1/2	1/1	2/2	3/5
M63/2"	1/1	1/1	2/3
M75/2" 1/2	-	-	2/2
M80/3"	-	-	1/2

GAS GROUP IIC

GUB/EMH.. Series with window - Copper free aluminium or Stainless Steel AISI 316 L

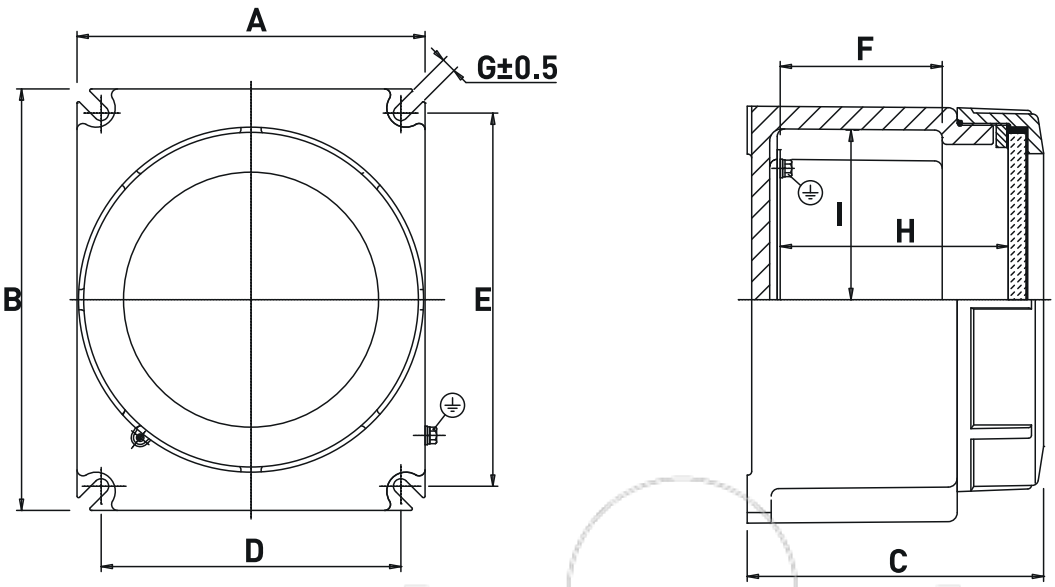


GUB/EMH.. series instrument housings are based on the features of our GUB.. enclosures and offer Ex d IIC mode of protection.
They are suitable for hazardous areas of industrial plants for indoor and outdoor applications.

TECHNICAL FEATURES

Material	Aluminium with low content of copper Stainless steel AISI 316 L (upon request) The sides A,B & C can be increased/decrease of 10%
IP rating	IP66
Ambient temperature range	-50°C to +55°C (ATEX) -60°C to +60°C (IECEx)
Approvals **(Complete enclosures)**	Certified 00ATEX0033X IECEx BKI 15.0003 TR CU
Marking	II 2 GD Ex d IIC T(*) Gb Ex tb IIIC T(*) Db IP66 * T6/T85°C, T5/T100°C, T4/T135°C
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Drain/breather valve Internal anticondensate painting Traffolyte/Stainless steel certificate label

Dimensions GUB/EMH..



GUB/EMH.. Series enclosures c/w internal mounting plate - Aluminium

TYPE	DIMENSIONS [mm]							WINDOW DIAMETER	WEIGHT [Kg]
	A	B	C	D	E	F	H		
EMH-160 + PS	210	210	160	180	180	78	115	155	6.00
EMH-175 + PS	232	281	185	202	251	97	141	170	8.90
EMH-200 + PS	257	298	200	227	268	106	150	195	11.90
EMH-230 + PS	295	330	236	259	295	140	189	230	15.80

For complete junction boxes is necessary to ask to the Sales Office.

Maximum number of entries on sides A/B under ATEX directive

TYPE	EMH-160	EMH-175	EMH-200	EMH-230
M20/1/2"	5/5	5/7	7/9	7/9
M25/3/4"	5/5	5/7	7/9	7/9
M32/1"	3/3	5/5	5/7	5/7
M50/1" 1/2	2/2	2/3	2/3	3/5
M63/2"	1/1	2/2	2/2	2/3
M75/2" 1/2	-	1/2	1/2	2/2
M80/3"	-	1/1	1/2	1/2

GAS GROUP IIC

CPS../EMH.. Series with window - Copper free aluminium

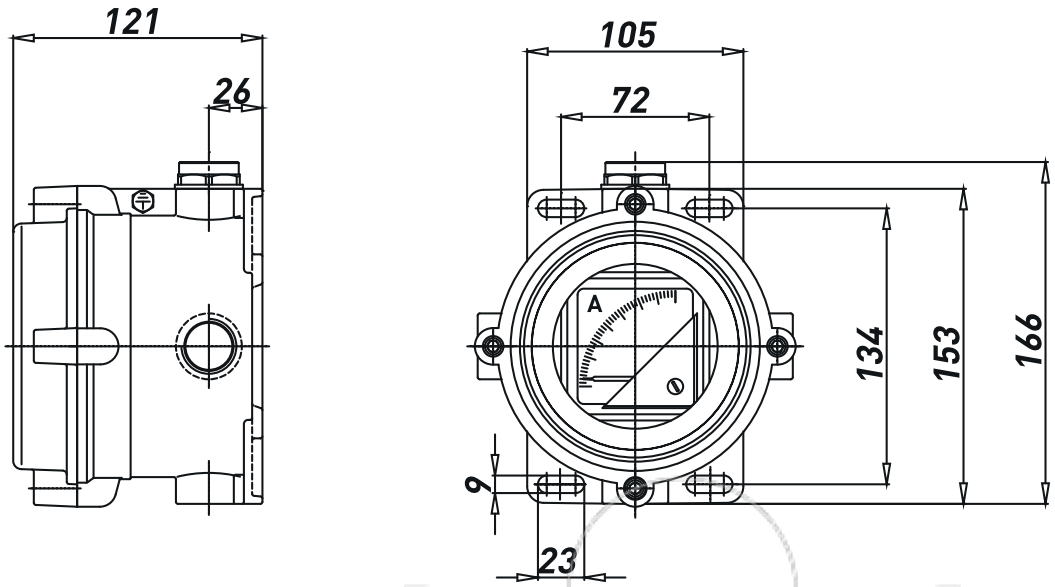


CPS/EMH.. series instrument housings are based on the features of our CPS.. boxes and offer Ex d IIC mode of protection.
They are suitable for hazardous areas of industrial plants for indoor and outdoor applications.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-50°C to + 55°C (ATEX) -60°C to +60°C (IECEx)
Approvals	Certified 03ATEX0009 IECEx BKI 15.0002 TR CU
Marking	II 2 GD Ex d IIC T(*) Gb Ex tb IIIC T(*) Db IP66 Ex db IIC T6/T5/T4 * T6/T85°C, T5/T100°C, T4/T135°C
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	Metric pitch 1.5, ANSI B1.20.1 NPT, UNI-6125
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.

Dimensions CPS../EMH..



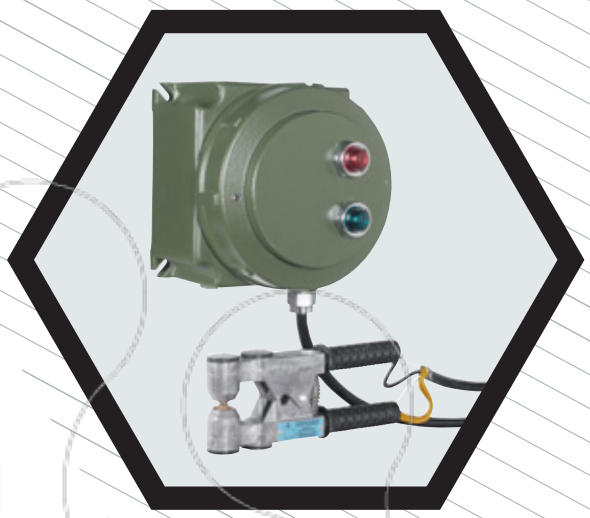
CPS../EMH.. enclosures

CODE RAL6003	TYPE	WINDOW DIAMETER	WEIGHT [Kg]
B070109010021	EMH-90 M25X1,5	90	1.40
B070109011021	EMH-90 3/4" NPT	90	1.40

Ammeter/Voltmer available on request.


J-01-03-1
H-01-06-1
H-01-05-1
H-01-04-1
H-01-03-1
MATERIALE VARIO
MATERIALE VARIO

EARTHING SYSTEMS



P.148

Earthing systems

- GUMT - Earthing control system - Copper free aluminium 148
- PTA Earthing clamp 150

EARTHING SYSTEMS

GUMT - Earthing control system - Copper free aluminium

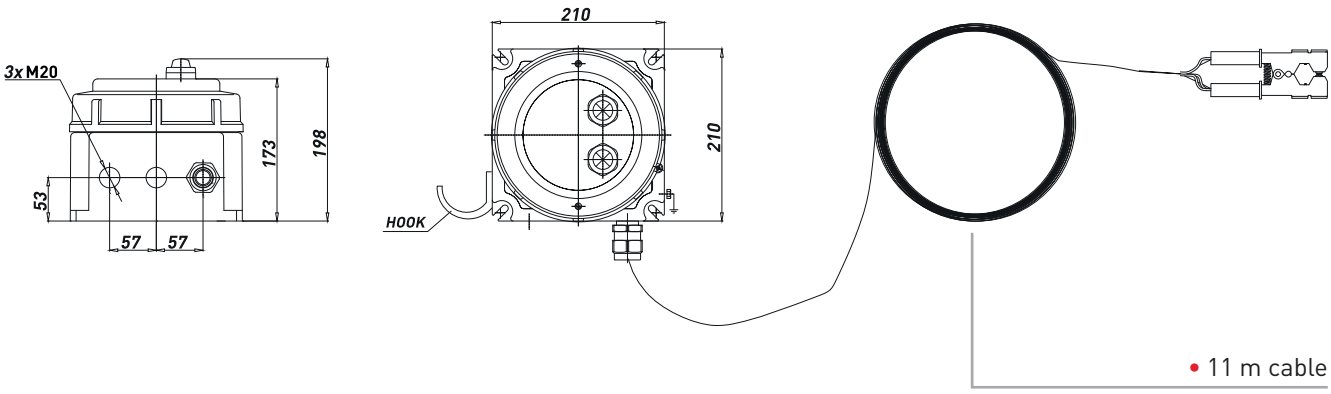


Control and discharge system for electrostatic charges suitable for road tankers, rail tankers and any movable tanker for dangerous items, ready for one/two double circuit clamps PTA ISEO-2. System is complete with arrest/consensus optical warning and changeover contact free from output voltage. The solution to control the discharge of static charges driving it through a dedicated and safe path, safe becauseExplosion proof.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP65/IP66
Ambient temperature range	-20°C to +55°C
Approvals	GUMT Certified 00ATEX0033X TR CU PTA CESI 03 ATEX 101 X
Marking	GUMT II 2 GD Ex d IIC T5 Gb Ex tb IIIC T100°C Db IP66 PTA II 2 GD Ex d IIC T6 Ex tD A21 IP65 T85°C
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	n° 3 entries M20x1,5, one complete with brass nickel chrome plated plug
Rated nominal current (PTA)	6 mA
Rated nominal voltage (PTA)	0,25 V
Changeover contact rating (GUMT)	5 A
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Cable reel Drain/breather valve Internal anticondensate painting Traffolyte/Stainless steel certificate label

Dimensions GUMT



GUMT earhing control system

CODE	TYPE	VOLTAGE
B060101000011	GUMT-325	110Vac or 220Vac +/-10%
B060301010011	GUMT-325 + 1 CLAMP PTA	110Vac or 220Vac +/-10%
B060301020011	GUMT-325 + 2 CLAMPS PTA	110Vac or 220Vac +/-10%
B060102000011	GUMT-325	24Vdc
B060302010011	GUMT-325 + 1 CLAMP PTA	24Vdc

EARTHING SYSTEMS

PTA Earthing clamp



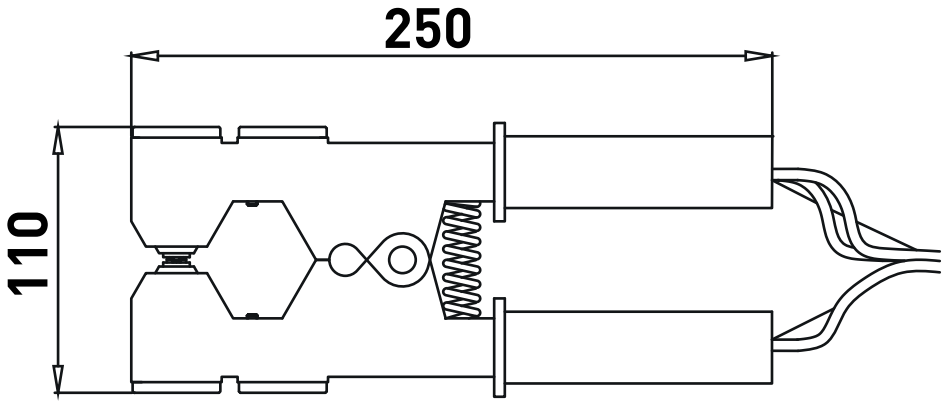
Reliable, robust, handy and easy to use, PTA Series clamps are the ideal tool for tanker loading platform equipped with electronic devices to signal correct grounding. They can be easily connected to any grip, even rusty ones.

They are made of aluminium and the electrical continuity is ensured by the carbonitrided steel contact tips which make a firm connection to any foothold having a thickness between 2 and 20 mm

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP65
Ambient temperature range	-20°C to +55°C
Approvals	CESI 03 ATEX 101 X
Marking	II 2 GD Ex d IIC T6 Ex tD A21 IP65 T85°C
Nominal current In	10 A
Insulation voltage	3 kV
Accessories available upon request	Cable reel

Dimensions PTA



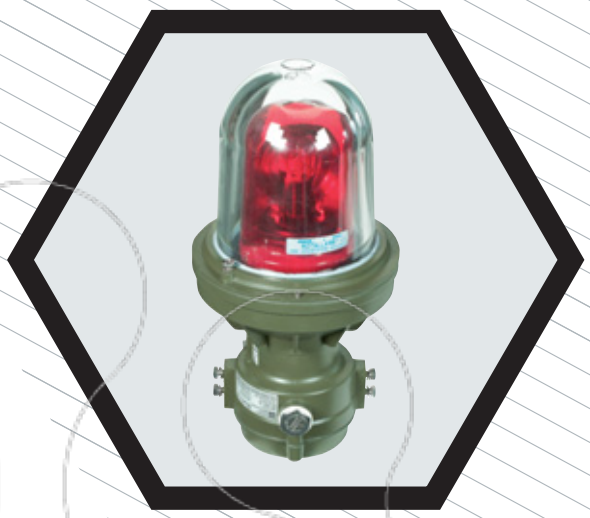
PTA Series clamps

TYPE	CODE	DIMENSIONS [mm]			WEIGHT [Kg]	CLAMP OPENING [mm]	CABLE TYPE	CABLE LENGHT [mt]
		LENGHT	WIDTH	HEIGHT				
PTA ISEO-1	B060201000000	250	110	35	1.56	3-20	1x6mm² PUR	11
PTA ISEO-2	B060202000000	250	110	35	3.36	3-20	3x3mm² PUR	11

PTA ISEO-1: Simply Earth clamp with yellow/green cable.
PTA ISEO-2: Double circuit Earth clamp, suitable to be combined with our Earth control system GUMT-325.



VISUAL SIGNALS



P.154

Visual signal

- EV../ROT Series - Rotating lights - Copper free aluminium.....154
- EV../XN-MXN Series - Flashing lights - Copper free aluminium.....156
- EV../WA.. series - LIOL (Low intensity obstruction lighting) - Copper free aluminium.....158
- EVCC.. series - MIOL (Medium intensity obstruction lighting) - Copper free aluminium ..160
- EVCC-TRAFFIC LIGHT.....164
- Spares & Accessories.....166

P.167

Lamps/spare parts

- Visual signal section.....167

VISUAL SIGNAL

EV../ROT Series - Rotating lights - Copper free aluminium



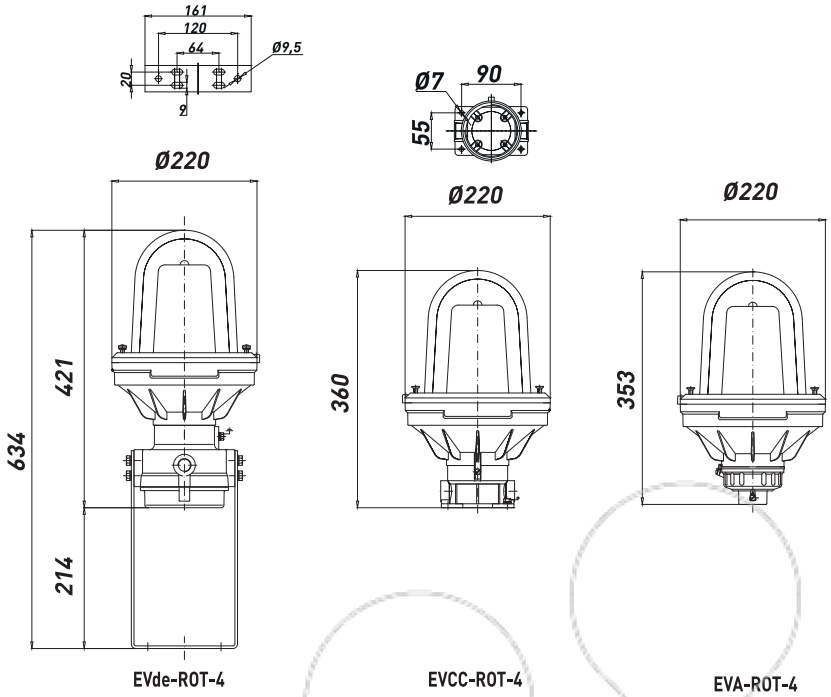
Range of rotating lamp visual signals, available in two versions, 25W and 45W
They have an excellent corrosion resistance due to the body made of aluminium with low content of copper and tempered glass of lamp compartment.

EVCC and EVA version available upon request.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-52°C to +60°C
Approvals	Certified 01ATEX0019X TR CU (marking upon request) IECEx INE 15.0031X
Marking	II 2 GD Ex d IIC T(**) Gb for all EV.. Ex de IIC T(**) Gb for all Evde.. Ex tb IIIC T(**) Db IP66 ** T5/T100°C, T4/T135°C
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 2 entries M25x1,5 (EVde and EVCC version) N° 1 entry M25x1,5 (EVA version) (plugs and cable glands excluded)
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Included
Colour	Red (other colours available upon request)
Rated operation voltage (UE)	240Vac, 12Vdc, 24Vdc 12Vac, 24Vac, 48Vac, 48Vdc, 110Vac (available upon request)
Frequency (AC version)	50/60Hz
Accessories available upon request	Protection guard

Dimensions EV../ROT



EV../ROT Visual signals

TYPE	CODE	LAMP [W]	WEIGHT [Kg]	TEMP. CLASS	VOLTAGE
EVde-4/ROT	A04B111C51B1D	25	8.50	T4*	48Vac 50/60Hz
EVde-4/ROT	A04B111C51C1D	25	8.50	T4*	240Vac 50/60Hz
EVde-4/ROT	A04B111C51D1D	25	8.50	T4*	24Vac 50/60Hz
EVde-4/ROT	A04B111C51E1D	25	8.50	T4*	110Vac 50/60Hz
EVde-4/ROT	A04B111E51A1D	45	8.50	T4*	12Vdc
EVde-4/ROT	A04B111E5191D	45	8.50	T4*	24Vdc

*In case of maximum ambient temperature reaches +40°C, temperature class changes into T5 (ordering code to be required)

VISUAL SIGNAL

EV../XN-MXN Series - Flashing lights - Copper free aluminium

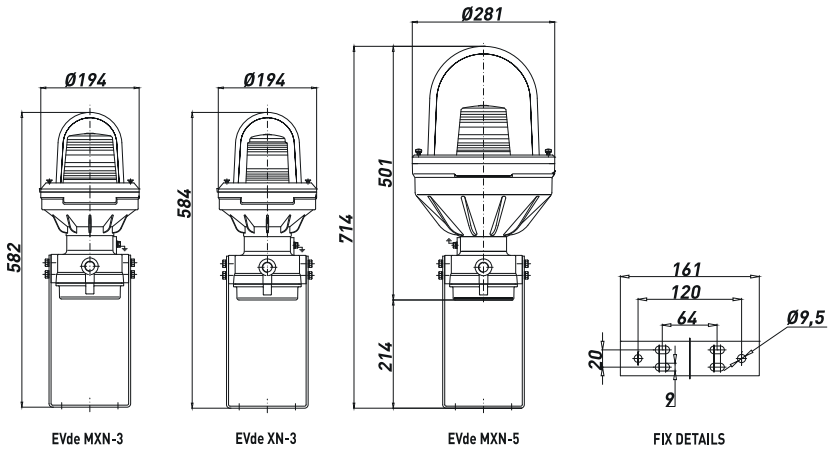


Range of xenoflash visual signals complete with Fresnel lens, available in different luminous intensities, 2J , 6J and 15J.
They have an excellent corrosion resistance due to the body made of aluminium with low content of copper and tempered glass of lamp compartment.
EVde version, with integrated Ex e junction box, allows end users and contractors the possibility to save one junction box, two cable glands and a minimum of 30 minutes of labour during installation process.
This version is supplied complete with an adjustable AISI304 stainless steel mounting bracket suitable for ceiling, wall and suspension installation.
EVCC version, without integrated Ex e junction box, allows standard ceiling installation (available upon request).
EVA version, without integrated Ex e junction box, allows standard suspension installation by conduit system and pastoral pole (available upon request).

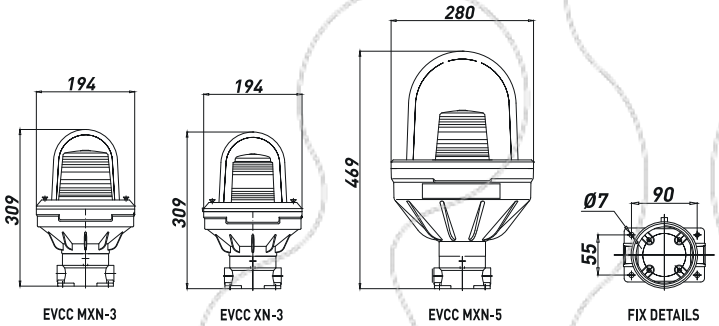
TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-52°C to +60°C
Approvals	Certified 01ATEX0019X TR CU (marking upon request) IECEx INE 15.0031X
Marking	II 2 GD Ex d IIC T(**) Gb for all EV.. Ex de IIC T(**) Gb for all Evde.. Ex tb IIIC T(**) Db IP66 ** T5/T100°C, T4/T135°C
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 2 entries M25x1,5 (EVde and EVCC version) N° 1 entry M25x1,5 (EVA version) (plugs and cable glands excluded)
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Included
Colour	Red (other colours available upon request)
Rated operation voltage (UE)	240Vac, 12/24Vac/dc 110Vac (available upon request)
Frequency (AC version)	50/60Hz
Accessories available upon request	Protection guard

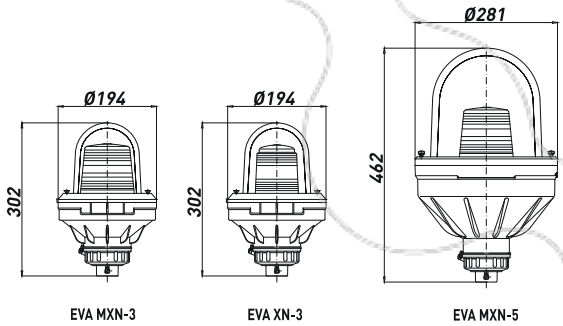
Dimensions EVde../XN-MXN



Dimensions EVCC../XN-MXN)



Dimensions EVA../XN-MXN)



EV../XN-MXN Series Visual Signals

TYPE	CODE	LAMP [W]	LUMINOUS INTENSITY	WEIGHT [Kg]	TEMP. CLASS	VOLTAGE
EVDE-XN-3	A04A101B01C1D	10	2J	4.50	T4*	240V 50/60HZ
EVDE-MXN-3	A04A101C51C1D	25	6J	4.50	T4*	240V 50/60HZ
EVCC-MXN-5	A04A201F01C1D	50	15J	6.00	T4*	240V 50/60HZ
EVDE-XN-3	A04A101B01F1D	10	2J	4.50	T4*	12/24V AC/DC
EVDE-MXN-3	A04A101C51F1D	25	6J	4.50	T4*	12/24V AC/DC
EVCC-MXN-5	A04A201F01F1D	50	15J	6.00	T4*	12/24V AC/DC

*In case of maximum ambient temperature reaches +40°C, temperature class changes into T5 (ordering code to be required)

VISUAL SIGNAL

EV../WA.. series - LIOL (Low intensity obstruction lighting) - Copper free aluminium

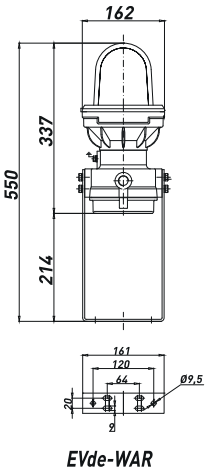


Range of low intensity aircraft warning lights, for structures below 45mt.

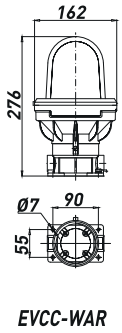
TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-52°C to +60°C
Approvals	Certified 01ATEX0019X TR CU (marking upon request) IECEx INE 15.0031X
Marking	II 2 GD Ex d IIC T(**) Gb for all EV.. Ex de IIC T(**) Gb for all Evde.. Ex tb IIIC T(**) Db IP66 ** T5/T100°C, T4/T135°C
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 2 entries M25x1,5 (EVde and EVCC version) N° 1 entry M25x1,5 (EVA version) (plugs and cable glands excluded)
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	Included
Colour	Red (other colours available upon request)
Rated operation voltage (UE)	230V (standard) 24V, 110V, 90-264V (available upon request)
Frequency (AC version)	50/60Hz

Dimensioni EVde/EVCC (WAR)



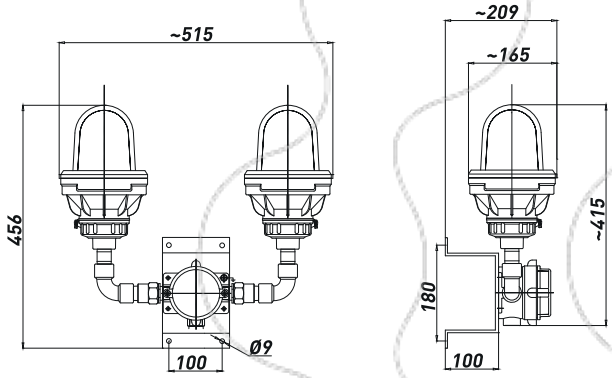
EVde-WAR



EVCC-WAR

Dimensioni EVA (WAD)

EVA-WAD



EV../WA.. Series Aircraft warning lights

TYPE	CODE	LAMP [W]	LAMP. TYPE	WEIGHT [Kg]	TEMP. CLASS
EVCC-WAR LED 6	A04D221A61G1D	6	LED – SINGLE	2.50	T4*
EVDE-WAR LED 6	A04D121A61G1D	6	LED – SINGLE	3.50	T4*
EVA-WAD LED 6	A04G321A61G1D	2X6	LED – DOUBLE	5.80	T4*

* In case of maximum ambient temperature reaches +40°C, temperature class changes into T5 (ordering code to be required)

VISUAL SIGNAL

EVCC.. series - MIOL (Medium intensity obstruction lighting) - Copper free aluminium

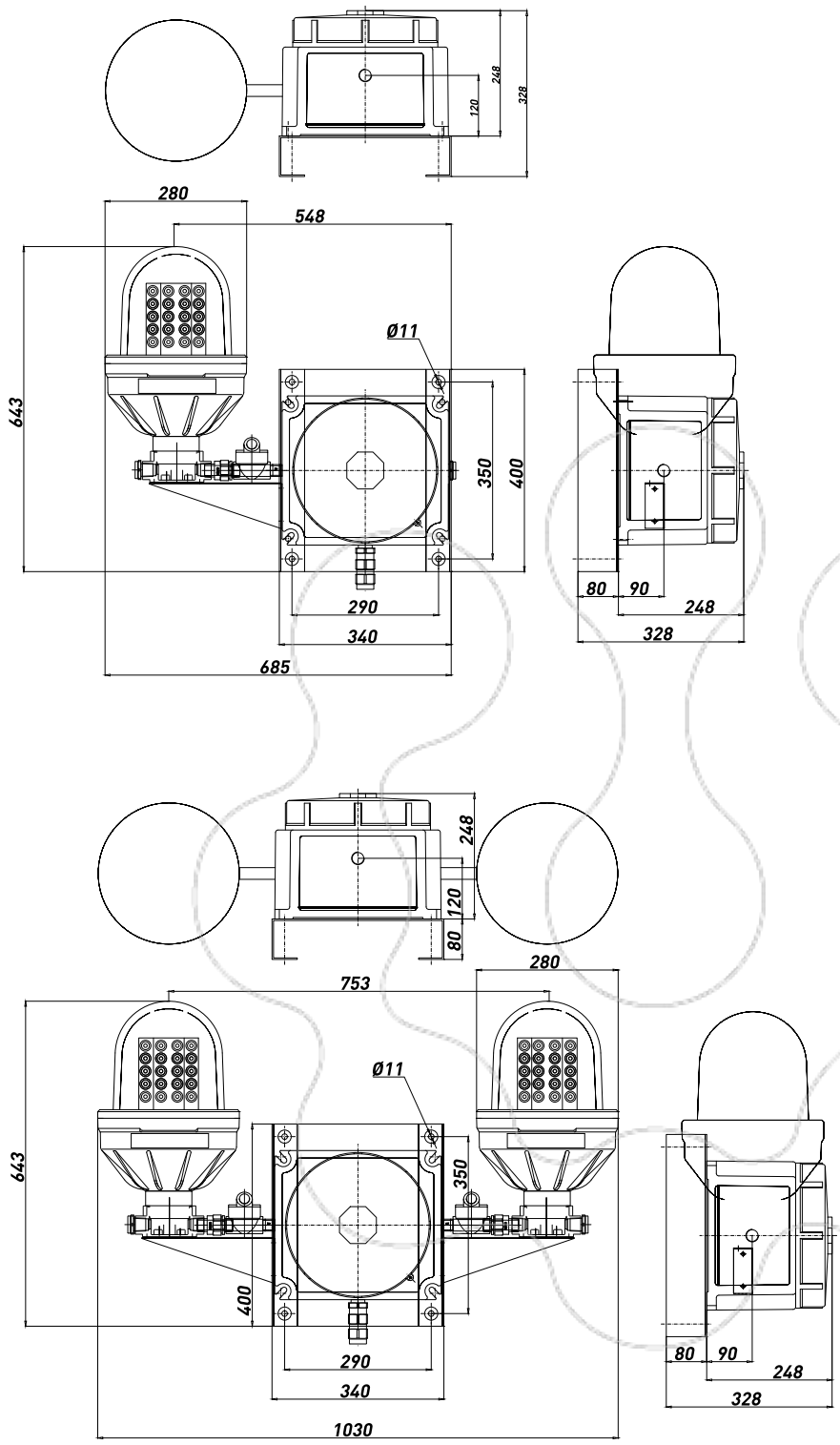


The EVCC-5/...LED range of Medium Intensity Obstruction Lighting products represents the top of technology , utilizes LED technology to deliver low heat dissipation, low watt consumption and up to 100.000/hours maintenance free operation.
Aircraft warning lighting fixtures EVCC-5/...LED are multi-light source utilizing high-power LEDs with wide beam. The product is fully compliant with ICAO Annex 14, which requires that structures over 45m should
incorporate medium intensity lighting fixtures light colour RED, WHITE or RED and WHITE.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-50°C to +55°C
Approvals	Certified 01ATEX0019X TR CU (marking upon request) IECEx INE 15.0031X
Marking	II 2 GD Ex d IIC T(**) Gb Ex tb IIIC T(**) Db IP66 ** T4/T135°C III 3 G Ex nA IIC T3 Gc
Compliance	ICAO/FAA (upon request)
Gaskets	O-ring made of Nitrile Rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 1 entry ¾" UNI-6125 complete with nickel chrome plated brass PAP type (Old version) N° 1 entry M20x1,5 complete with nickel chrome plated brass PAP type (New version Ex d)
Hardware and screws	AISI304 Stainless steel external hardware and screws
Lamps	LED Included
Colour	RED, WHITE or RED and WHITE
Rated operation voltage (UE)	230Vac 220/240Vac 24Vdc
Frequency (AC version)	50/60Hz

Dimensions EVCC.. (MIOL) - OLD VERSION



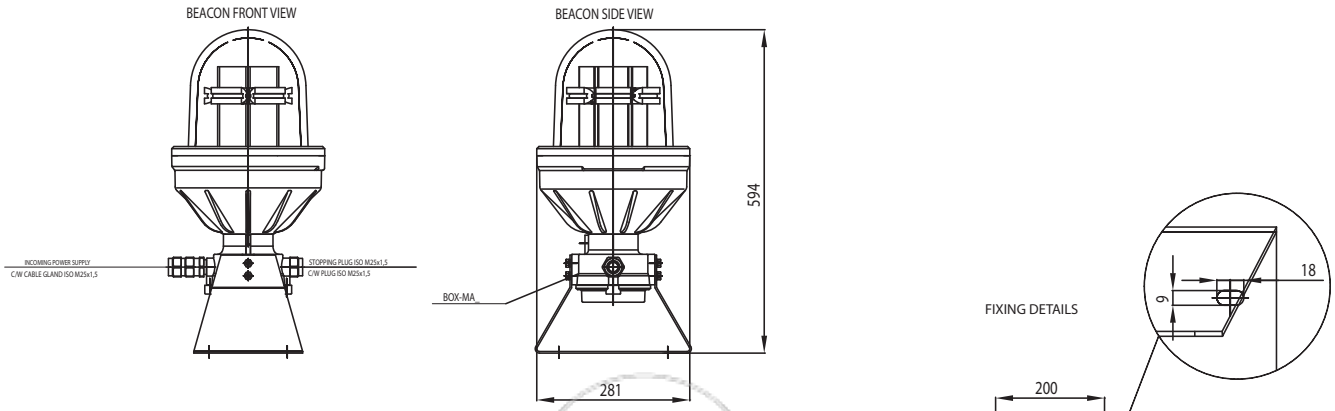
EVCC.. (MIOL) Medium intensity aircraft warning lights (OLD VERSION)

TYPE	CODE	LAMP [W]	MIOL TYPE	WEIGHT [Kg]	TEMP. CLASS	VOLTAGE
EVCC-5/LED	A04E225G01E1M	60 (RED)[1]	B	25	T4	110V 50/60HZ
EVCC-5/LED	A04E225G0171M	60 (RED)[1]	B	25	T4	220/240V 50/60HZ
EVCC-5/LED	A04H225G01E1M	2X60 (RED)[1]	B	35	T4	110V 50/60HZ
EVCC-5/LED	A04H225G0171M	2X60 (RED)[1]	B	35	T4	220/240V 50/60HZ

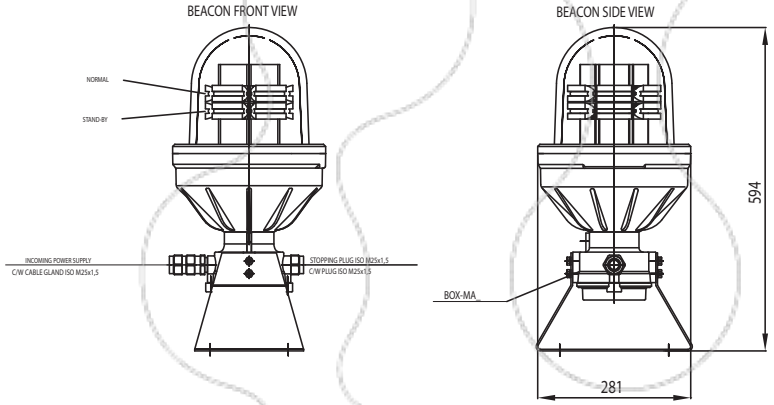
(1) Steady red light (flashing provided by control panel to be ordered separately); 2000cd night mode

Dimensions EVCC.. (MIOL) - Ex de version

SINGLE MIOL



TWIN MIOL



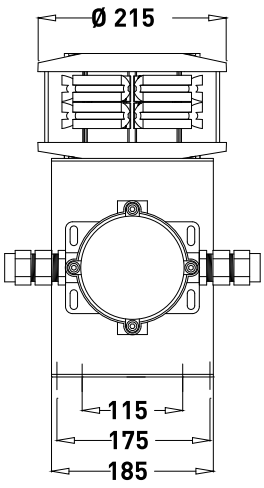
EVCC.. (MIOL) Medium intensity aircraft warning lights (NEW VERSION)

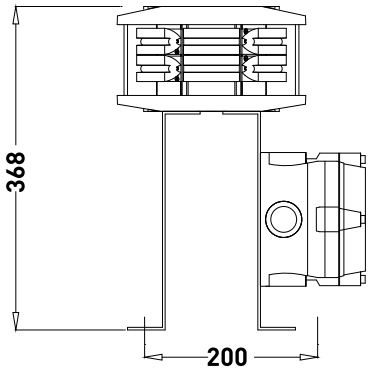
TYPE	CODE	LAMP [W]	MIOL TYPE	WEIGHT [Kg]	TEMP. CLASS	PROTECTION	VOLTAGE
EVDE-5/LED	A04E121AW1K1D	RED [1]	B - SINGLE	11 KG	T4	EX-DE	BY CONTROL PANEL[5]
EVDE-5/LED	A04F121AW6K1D	WHITE [2]	A - SINGLE	11 KG	T4	EX-DE	BY CONTROL PANEL[5]
EVDE-5/LED	A04H121AW1K1D	RED [1]	B - TWIN	11,5 KG	T4	EX-DE	BY CONTROL PANEL[5]
EVDE-5/LED	A04I121AW6K1D	WHITE [2]	A - TWIN	11,5 KG	T4	EX-DE	BY CONTROL PANEL[5]
EVDE-5/LED	A04L121AW8K1D	RED &WHITE [3]	AB - SINGLE [4]	11,5 KG	T4	EX-DE	BY CONTROL PANEL[5]

[1] 2.000cd night mode, RED flashing
[2] 20.000cd day mode, WHITE flashing/2.000cd night mode, WHITE flashing
[3] 20.000cd day mode, WHITE flashing/2.000cd night mode, RED flashing
[4] TWIN model available upon request
[5] to be ordered separately

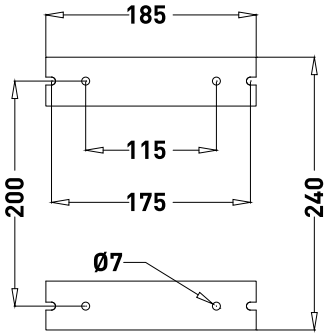
Additional features:
- the AWL system consits of lighting fixtures and respective panel board (custom made on the base of the system design)
- flashing is given by electronic card housed inside the control panel
- heat shield suggested for ambient temperature over +45°C

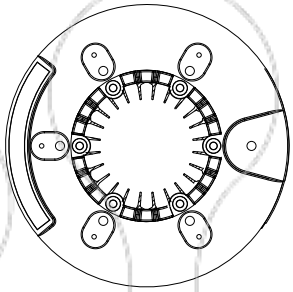
Dimensions EVCC.. (MIOL) – Ex nA version





FIXING DETAILS





EVCC.. (MIOL) Medium intensity aircraft warning lights (NEW VERSION)

TYPE	CODE	LAMP [W]	MIOL TYPE	WEIGHT [Kg]	TEMP. CLASS	PROTECTION	VOLTAGE
EVCC-5/LED		(RED)[1]	B	3	T3	Ex-nA	[5]
EVCC-5/LED		(RED)[2]	B	3	T3	Ex-nA	[5]
EVCC-5/LED		(WHITE)[3]	A	3,7	T3	Ex-nA	[5]
EVCC-5/LED		(RED & WHITE)[4]	AB	4,9	T3	Ex-nA	[5]

(1) 9,3W (@20fpm)/12,9 (@20fpm); 2000cd
(2) 3,1W (@20fpm)/5,7 (@20fpm); 2000cd
(3) 51W Day mode/12,9W Nigh mode (@20fpm)/90W Day mode/23W Nigh mode (@40fpm)/20.000cd Day mode/2.000cd Nigh mode
(4) 57W Day mode/21W Nigh mode (@20fpm)/96W Day mode/24W Nigh mode (@40fpm)/20.000cd Day mode/2.000cd Nigh mode
(5) By control panel to be ordered separately

VISUAL SIGNAL

EVCC-TRAFFIC LIGHT

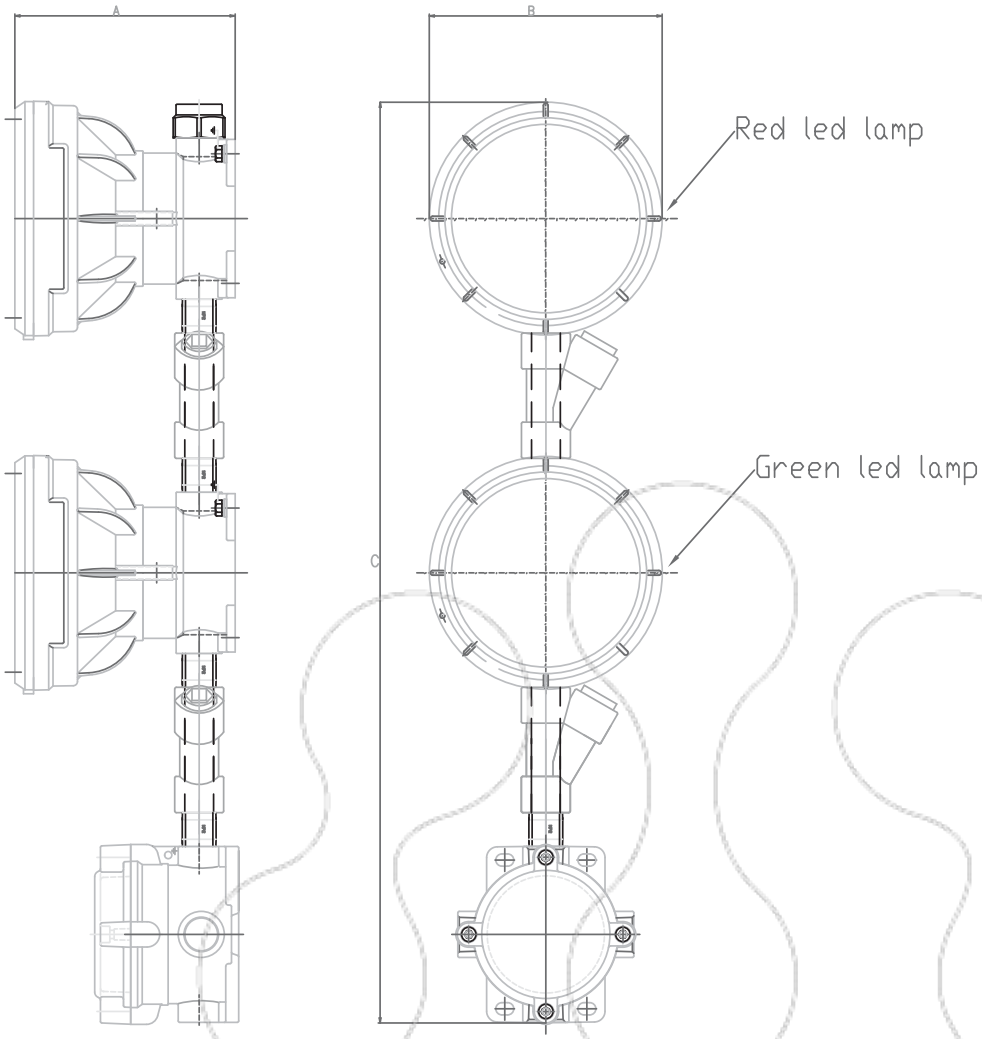


- Traffic light with red and green lamps (customized configurations available upon request)
- LED technology
- Zero maintenance

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-20°C to +60°C (lower temperatures available upon request)
Approvals	INERIS 01ATEX0019X (standard) IEC Ex INE 15.0031X TR CU (marking upon request, ordering code to be required)
Marking	II 2GD Ex-d IIC T3 Gb EX-tb IIIC T200°C Db IP66
Gaskets	O-ring made of nitrile rubber (NBR)
Surface treatment	Green colour polyurethane painting cycle RAL6003 (other colour available upon request)
Entries	N° 1 entry M25x1,5
Screws	AISI304 Stainless steel external screws
Lamps	Included
Rated operation voltage (UE)	110/230V AC 24V AC/DC
Frequency	50/60 Hz
Power factor	> 0,95

Dimensions EVCC-PR/LED



EVCC-PR/LED Traffic light

TYPE	CODE	LAMP [W]	LAMP. TYPE	TEMP. CLASS	VOLTAGE	DIMENSIONS [mm]			AMBIENT TEMPERATURE
						A	B	C	
TRAFFIC LIGHT 2XEVCC-PR/LED	A04K221A57H12	5 (RED/ GREEN)	LED	T3	110/230V AC	153	162	640	(-20°C;+60°C)
TRAFFIC LIGHT 2XEVCC-PR/LED	A04K221A57I12	5 (RED/ GREEN)	LED	T3	24V AC/DC	153	162	640	(-20°C;+60°C)

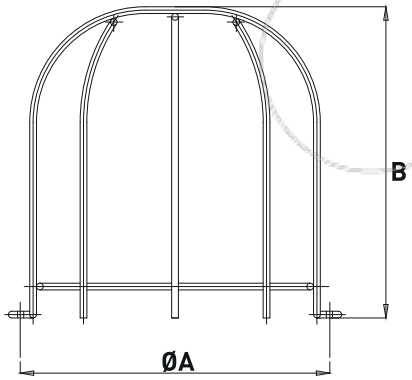
Serie EV../ROT/EV../XN-MXN Series/EV../ WA.. series/EVCC.. series

SPARES & ACCESSORIES

Protection guard (Stainless Steel AISI316 L version available upon request)

CODE	TYPE	DIMENSIONS AxB (mm)	WEIGHT [Kg]
A0A0400017000	GEV-1 PROTECTION GUARD FOR EV..-1 - AISI 304	123X103	0.160
A0A0400018000	GEV-2 PROTECTION GUARD FOR EV..-2 - AISI 304	138X139	0.230
A0A0400046000	GEV-3 PROTECTION GUARD FOR EV..-3 - AISI 304	151X152	0.240
A0A0400016000	GEV-4 PROTECTION GUARD FOR EV..-4 - AISI 304	178X200	0.370
A0A0400047000	GEV-5 PROTECTION GUARD FOR EV..-5 - AISI 304	252X233	0.400

Dimensions GEV



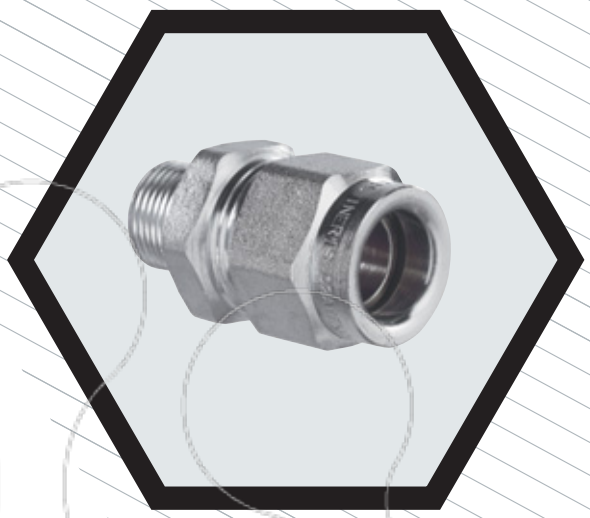
LAMPS/SPARE PARTS

Visual signal section

PRODUCT NAME	SHAPE	POWER [W]	CAP	VOLTAGE	FLUX [lm]	CODE	WHERE IT IS USED
XENOFLASH (RED)		10 (2J)	E27	220/240 VAC	/	A500400011000	EVDE-XN-3
		10 (2J)	E27	12/24 VAC/VDC	/	A500400013000	EVDE-XN-3/12/24 VAC/VDC
XENOFLASH (RED)		25 (6J)	E27	220/240 VAC	/	A500400012000	EVDE-MXN-3
		25 (6J)	E27	12/24 VAC/VDC	/	A500400016000	EVDE-MXN-3/12/24 VAC/VDC
STROBOFLASH (RED)		50 (15J)	/	220/240 VAC	/	A500400009000	EVCC-MXN-5 1X50/EVCC-MXN-5 2X50
		50 (15J)	/	12/24 VAC/VDC	/	A500400098000	EVCC-MXN-5 1X50/EVCC-MXN-5 2X50/12/24 VAC/VDC
ROTOALARM		45	/	12 VDC	/	A500400007000	EVDE-ROT-4
		45	/	24 VDC	/	A500400004000	EVDE-ROT-4
		25	/	240 VAC	/	A500400001000	EVDE-ROT-4
LED (RED)		6	E27	230 VAC	/	A500400090000	EVDE-WAR 1X6W/EVCC-WAR 6W


42-3SP-091
42-3AP-033
42-3FTP-064

CABLE GLANDS & FITTINGS



P.170

Metallic cable glands

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- Double seal 174
- PSM (Male-Male) 178
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P.186

Plastic cable glands

- Polyamide 186
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P.192

Fittings

- BMF/BFF/BMM Series - Three pieces unions 192
- BMF/BFF/BMM Series - Three pieces unions 194
- BMF/BFF/BMM Series - Three pieces unions 196
- EYS Series - Sealing fittings 198
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METALLIC CABLE GLANDS
Single seal



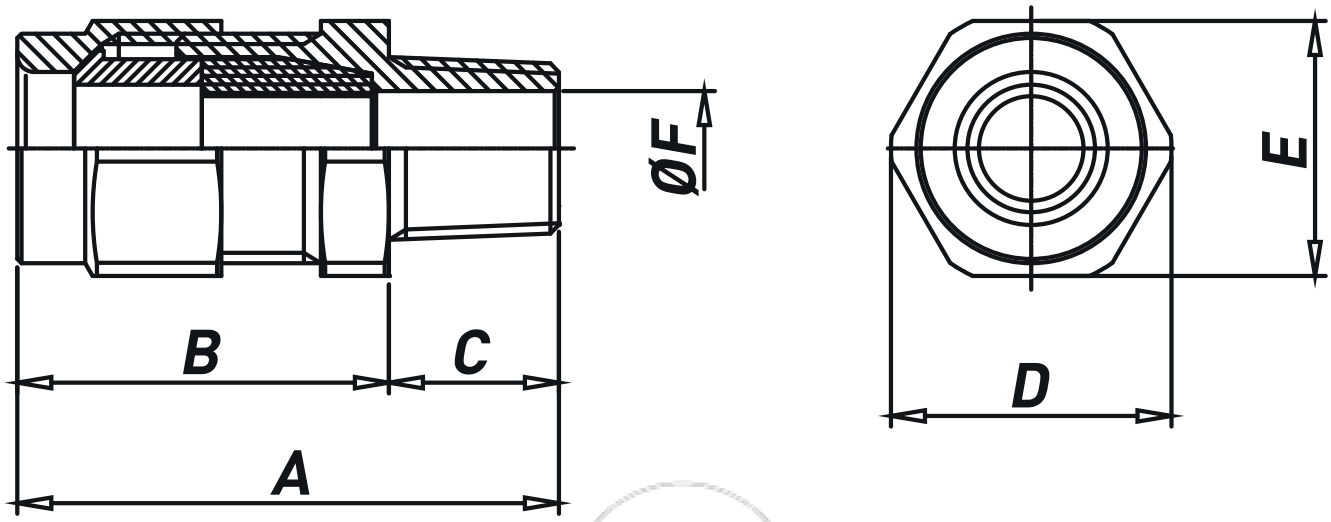
A large range of single seal cable glands
- Armoured & unarmoured cable
- Lead sheathed cable
- Barrier type

Suitable for Zone 1/2 and Zone 21/22.

CODIFICATION TABLE

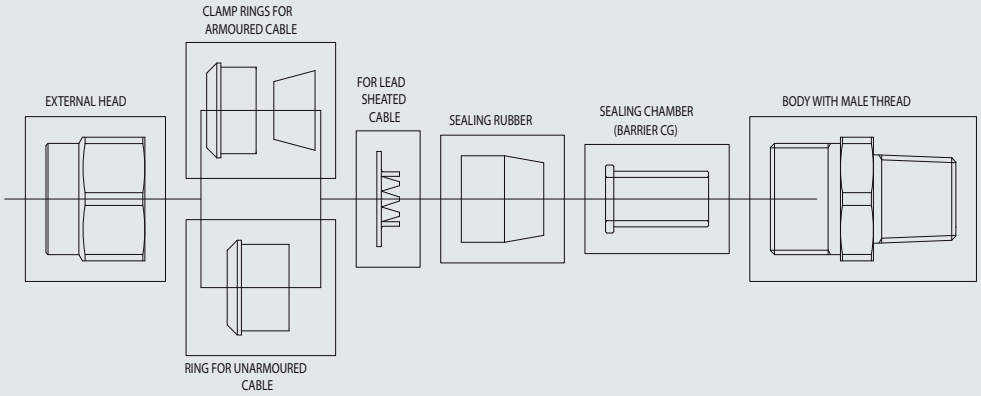
Material	Nickel chrome plated brass AISI 316 L Stainless steel (other materials upon request)
IP rating	IP66
Operating temperature range	-52°C to +110°C
Approvals	Certified 02ATEX0084 (standard) TR CU (marking upon request, ordering code to be required) IECEx INE 14.0046X
Marking*	II 2 GD Ex db/eb IIC Ex db/eb I Ex tb IIIC IP66 I M2 Ex db/eb I * For group I certification is up to size 6.
Internal seals	EPDM
Threads	Metric, NPT, UNI-6125 (other thread upon request)
Accessories available upon request	Locknut, sealing gasket, earthing ring, star washer, protective shroud
Note	1. Armouring rings are usually supplied made of nickel chrome plated brass. Other materials are available upon request. 2. Our standard cable gland are suitable for armour clamping up to 1,25 mm thickness. In case of higher armour thickness please revert to our Sales department.

Dimensions



	METRIC	NPT UNI-6125	SEAL	CABLE RANGE (mm)	Ø EXTERNAL CABLE (mm)	DIMENSIONS (mm)				
					F	A	B	C	D	E
SIZE 1	M20X1,5	1/2"	1A1	6 - 9	18	62	42	20	33	30
			1A2	9 - 12						
SIZE 2	M25X1,5	3/4"	2A1	6 - 9	24	62	42	25	40	36
			2A2	9 - 12						
			2A3	11 - 14						
			2A4	14 - 17						
SIZE 3	M32X1,5	1"	3A1	14 - 17	30	70	45	25	49	44
			3A2	17 - 20						
			3A3	20 - 23						
SIZE 5S	M40X1,5	1" 1/4	5A2	23 - 26	43	70	45	25	62	56
			5A3	26 - 29						
			5A4	29 - 32						
			5A5	32 - 36						
SIZE 5	M50X1,5	1" 1/2	5A2	23 - 26	43	70	45	25	62	56
			5A3	26 - 29						
			5A4	29 - 32						
			5A5	32 - 36						
SIZE 6	M63X1,5	2"	6A2	36 - 39	57	72	46	25	78	70
			6A3	39 - 42						
			6A4	42 - 46						
SIZE 7	M75X1,5	2" 1/2	7A2	44 - 48	69	78	46	32	92	83
			7A3	48 - 52						
			7A4	52 - 56						
			7A5	56 - 60						
SIZE 8	M80X1,5	3"	8A4	56 - 60	79	78	46	32	103	93
			8A5	59 - 63						
			8A6	63 - 67						
			8A7	67 - 71						

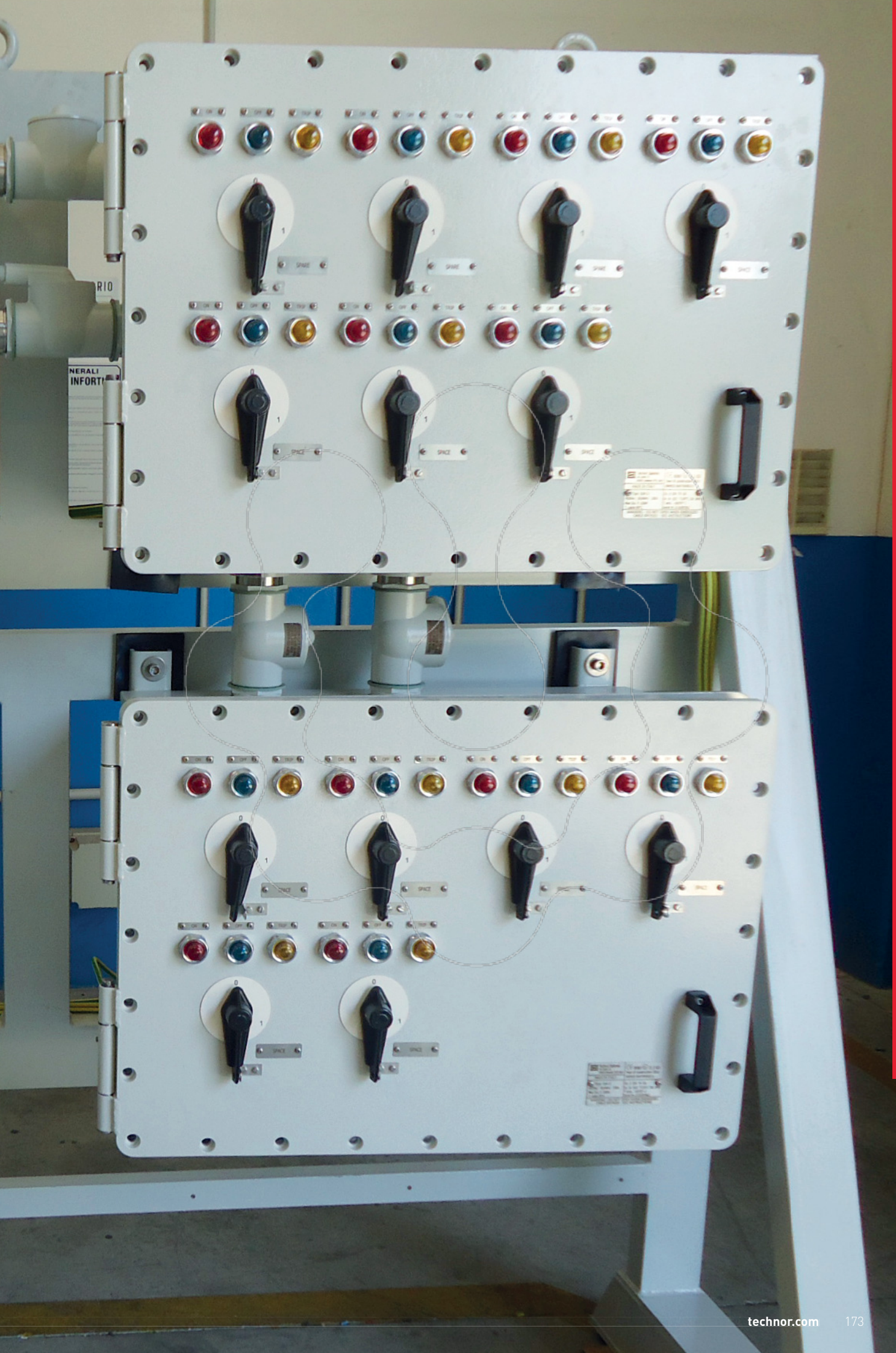
Assembly diagram



CODIFICATION TABLE

B14 # # # # # # # N

SEALS	N - WITHOUT SEAL S - WITH SET SEALS 1 - SEALING RUBBER A1 2 - SEALING RUBBER A2 3 - SEALING RUBBER A3 4 - SEALING RUBBER A4 5 - SEALING RUBBER A5 6 - SEALING RUBBER A6 7 - SEALING RUBBER A7
CERTIFICATE	1 - ATEX/IECEX - GROUP II 2 - ATEX/IECEX- GROUP I 5 - TR CU - GROUP II 6 - TR CU - GROUP I
THREAD	1 - METRIC 2 - NPT 3 - UNI-6125
ARMOUR THK	0 - STANDARD 1 - EXTENDED BODY (IN CASE OF ARMOUR THICKNESS HIGHER THAN 1,25MM)
SIZE	1 - SIZE 1 2 - SIZE 2 3 - SIZE 3 4 - SIZE 5S 5 - SIZE 5 6 - SIZE 6 7 - SIZE 7 8 - SIZE 8
TYPE	02 – PNA _ SINGLE SEAL, ARMOURED CABLE 04 – PB AX _ SINGLE SEAL, ARMOURED CABLE, BARRIER TYPE 12 – PBS _ SINGLE SEAL, UNARMOURED CABLE, LEAD SHEATED CABLE 14 – PSB _ SINGLE SEAL, ARMOURED CABLE, LEAD SHEATED CABLE 16 – PNS _ SINGLE SEAL, UNARMOURED CABLE 17 – PMS _ SINGLE SEAL, UNARMOURED CABLE, BARRIER TYPE
MATERIAL	01 - BNK BRASS NICKEL CHROME PLATED 03 - STAINLESS STEEL AISI316



METALLIC CABLE GLANDS
Double seal



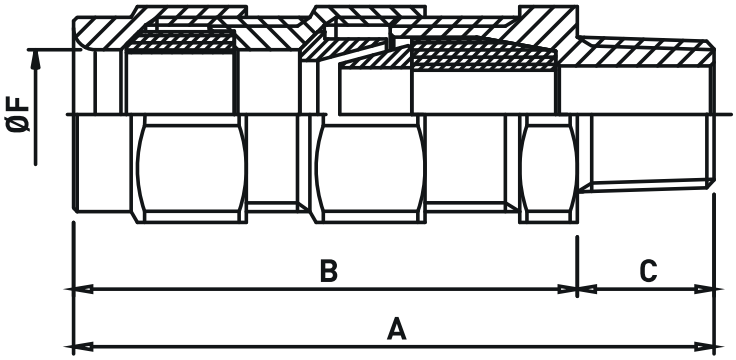
A large range of double seal cable glands
- Armoured & unarmoured cable
- Lead sheathed cable
- Barrier type

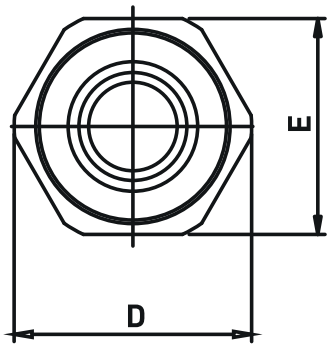
Suitable for Zone 1/2 and Zone 21/22.

TECHNICAL FEATURES

Material	Nickel chrome plated brass AISI 316 L Stainless steel (other materials upon request)
IP rating	IP66
Operating temperature range	-52°C to +110°C
Approvals	Certified 02ATEX0084 (standard) TR CU (marking upon request, ordering code to be required) IECEx INE 14.0046X
Marking*	II 2 GD Ex db/eb IIC Ex db/eb I Ex tb IIIC IP66 I M2 Ex db/eb I * For group I certification is up to size 6.
Internal seals	EPDM
Threads	Metric, NPT, UNI-6125 (other thread upon request)
Accessories available upon request	Locknut, sealing gasket, earthing ring, star washer, protective shroud
Note	1. Armouring rings are usually supplied made of nickel chrome plated brass. Other materials are available upon request. 2. Our standard cable gland are suitable for armour clamping up to 1,25mm thickness. In case of higher armour thickness please revert to our Sales department.

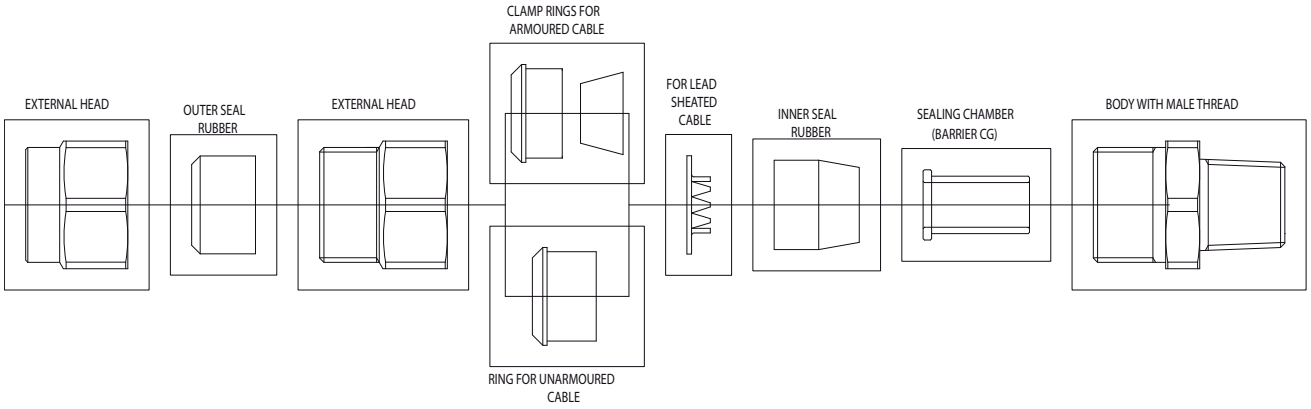
Dimensions





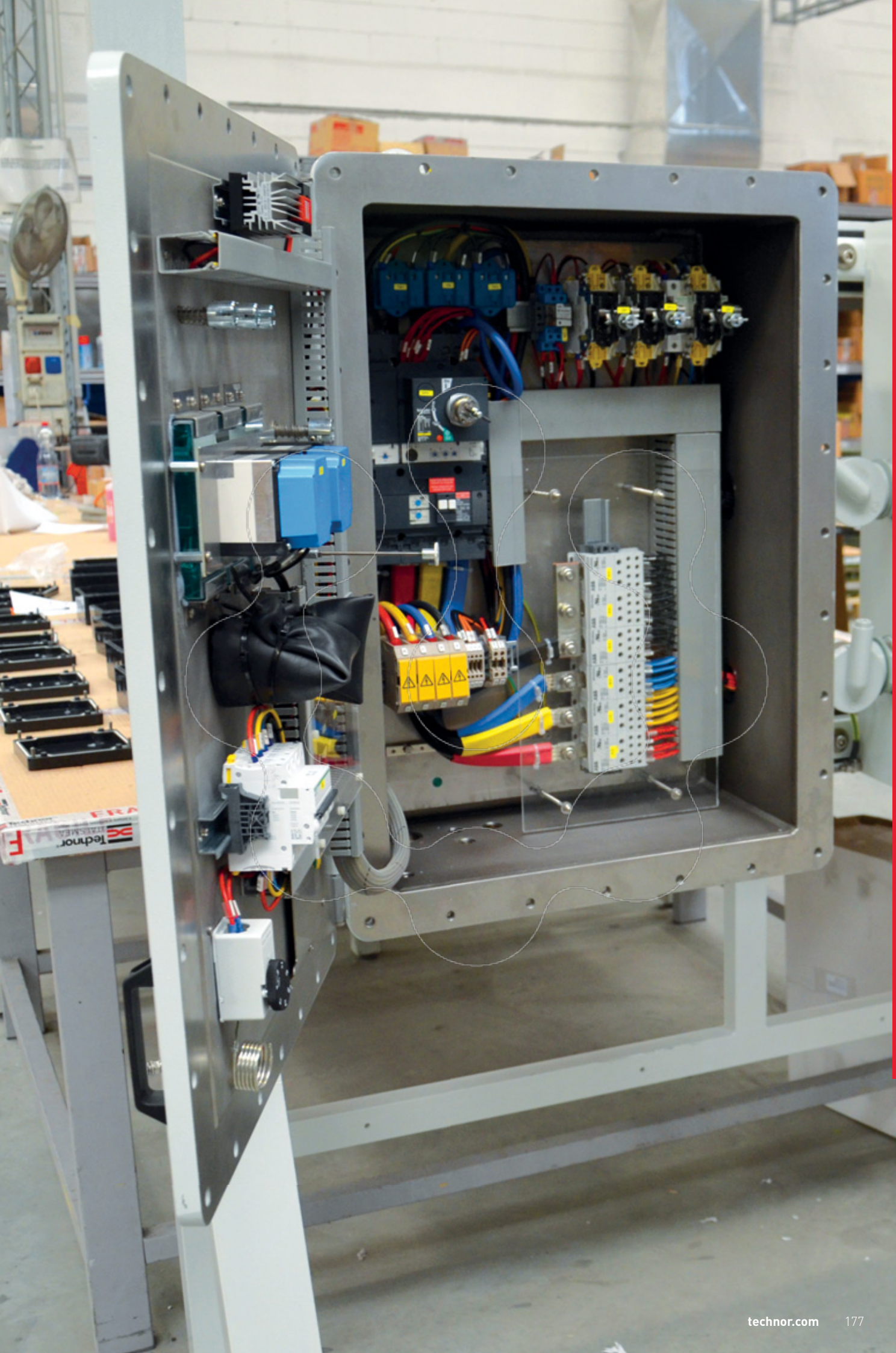
	METRIC	NPT UNI-6125	INNER SEAL	CABLE RANGE (mm)	OUTER SEAL	CABLE RANGE (mm)	Ø EXTERNAL CABLE (mm)	EXTDIMENSIONS (mm)				
							F	A	B	C	D	E
SIZE 1	M20X1,5	1/2"	1A1	6 - 9	1B1	8 - 11	18	85	65	20	33	30
			1A2	9 - 12	1B2	11 - 14						
					1B3	14 - 17						
SIZE 2	M25X1,5	3/4"	2A1	6 - 9	2B1	14 - 17	24	85	65	20	40	36
			2A2	9 - 12	2B2	17 - 20						
			2A3	11 - 14	2B3	20 - 23						
			2A4	14 - 17								
SIZE 3	M32X1,5	1"	3A1	14 - 17	3B1	20 - 23	30	93	68	25	49	44
			3A2	17 - 20	3B2	23 - 26						
			3A3	20 - 23	3B3	26 - 29						
SIZE 5S	M40X1,5	1" 1/4	5A2	23 - 26	5B2	29 - 32	43	93	68	25	62	56
			5A3	26 - 29	5B3	32 - 36						
			5A4	29 - 32	5B4	36 - 39						
			5A5	32 - 36	5B5	39 - 42						
SIZE 5	M50X1,5	1" 1/2	5A2	23 - 26	5B2	29 - 32	43	93	68	25	62	56
			5A3	26 - 29	5B3	32 - 36						
			5A4	29 - 32	5B4	36 - 39						
			5A5	32 - 36	5B5	39 - 42						
SIZE 6	M63X1,5	2"	6A2	36 - 39	6B2	44 - 48	57	95	71	25	78	70
			6A3	39 - 42	6B3	48 - 52						
			6A4	42 - 46	6B4	52 - 56						
SIZE 7	M75X1,5	2" 1/2	7A2	44 - 48	7B2	55 - 59	69	100	71	32	92	83
			7A3	48 - 52	7B3	59 - 63						
			7A4	52 - 56	7B4	63 - 67						
			7A5	56 - 60								
SIZE 8	M80X1,5	3"	8A4	56 - 60	8B4	63 - 67	79	100	71	32	103	93
			8A5	59 - 63	8B5	67 - 69						
			8A6	63 - 67	8B6	69 - 73						
			8A7	67 - 71	8B7	73 - 77						

Assembly diagram



B14 # # # # # # # #

OUTER SEALS	N - WITHOUT SEAL S - WITH SET SEALS 1 - OUTER SEAL RUBBER B1 2 - OUTER SEAL RUBBER B2 3 - OUTER SEAL RUBBER B3 4 - OUTER SEAL RUBBER B4 5 - OUTER SEAL RUBBER B5 6 - OUTER SEAL RUBBER B6 7 - OUTER SEAL RUBBER B7
INNER SEALS	N - WITHOUT SEAL S - WITH SET SEALS 1 - INNER SEAL RUBBER A1 2 - INNER SEAL RUBBER A2 3 - INNER SEAL RUBBER A3 4 - INNER SEAL RUBBER A4 5 - INNER SEAL RUBBER A5 6 - INNER SEAL RUBBER A6 7 - INNER SEAL RUBBER A7
CERTIFICATE	1 - ATEX/IECEX - GROUP II 2 - ATEX/IECEX- GROUP I 5 - TR CU - GROUP II 6 - TR CU - GROUP I
THREAD	1 - METRIC 2 - NPT 3 - UNI-6125
BODY	0 - STANDARD 1 - EXTENDED BODY (IN CASE OF ARMOUR THICKNESS HIGHER THAN 1,25mm)
SIZE	1 - SIZE 1 2 - SIZE 2 3 - SIZE 3 4 - SIZE 5S 5 - SIZE 5 6 - SIZE 6 7 - SIZE 7 8 - SIZE 8
TYPE	01 – PAP _ DOUBLE SEAL, ARMOURED CABLE 03 – PAB AX _ DOUBLE SEAL, ARMOURED CABLE, BARRIER TYPE 11 – PBD _ DOUBLE SEAL, UNARMOURED CABLE, LEAD SHEET 13 – PDB _ DOUBLE SEAL, ARMOURED CABLE, LEAD SHEET 15 – PND _ DOUBLE SEAL, UNARMOURED CABLE 18 – PMD _ DOUBLE SEAL, UNARMOURED CABLE, BARRIER TYPE
MATERIAL	01 - BNK BRASS NICKEL CHROME PLATED 03 - STAINLESS STEEL AISI316



METALLIC CABLE GLANDS

PSM (Male-Male)

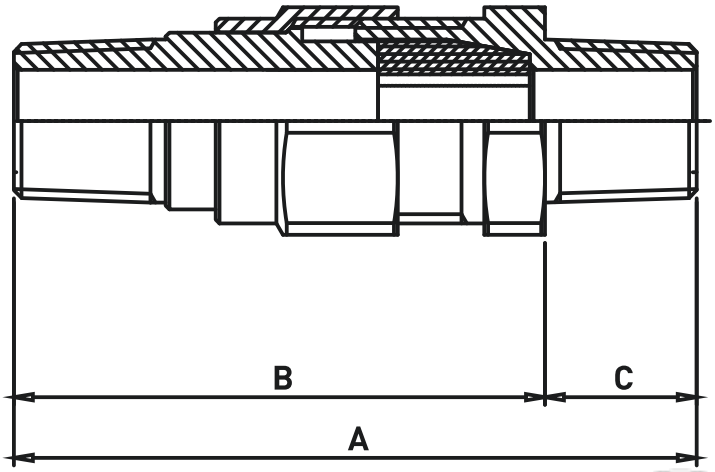


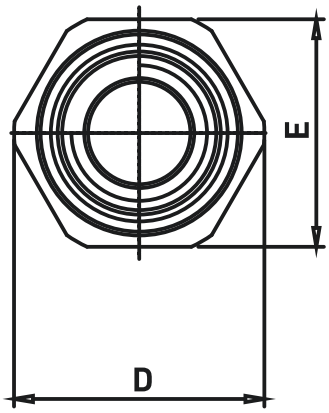
Single seal through "male-male" cable gland suitable for unarmoured cables.
Suitable for Zone 1/2 and Zone 21/22.

TECHNICAL FEATURES

Material	Nickel chrome plated brass AISI 316 L Stainless steel (other materials upon request)
IP rating	IP66
Operating temperature range	-52°C to +110°C
Approvals	Certified 02ATEX0084 (standard) TR CU (marking upon request, ordering code to be required) IECEx INE 14.0046X
Marking*	II 2 GD Ex db/eb IIC Ex db/eb I Ex tb IIIC IP66 I M2 Ex db/eb I * For group I certification is up to size 6.
Internal seals	EPDM
Threads	Metric, NPT, UNI-6125 (other thread upon request)
Accessories available upon request	Locknut, sealing gasket, earthing ring, star washer, protective shroud
Note	The Free Nipple thread can be provided Metric, NPT or UNI-6125

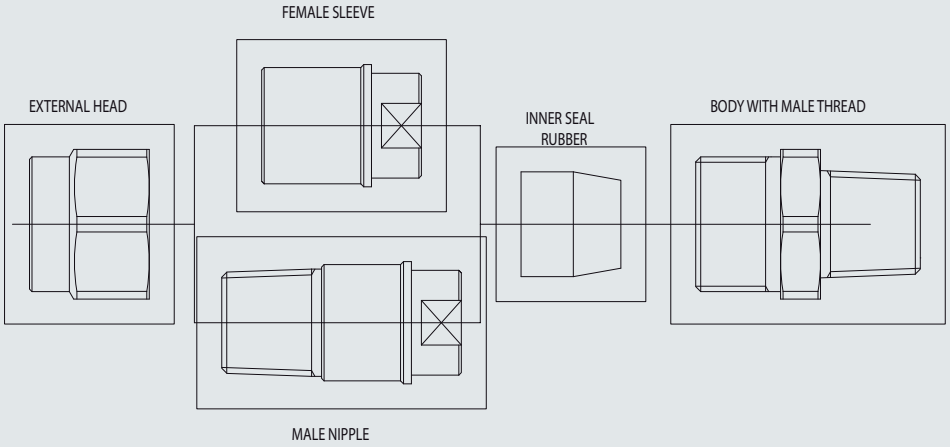
Dimensions





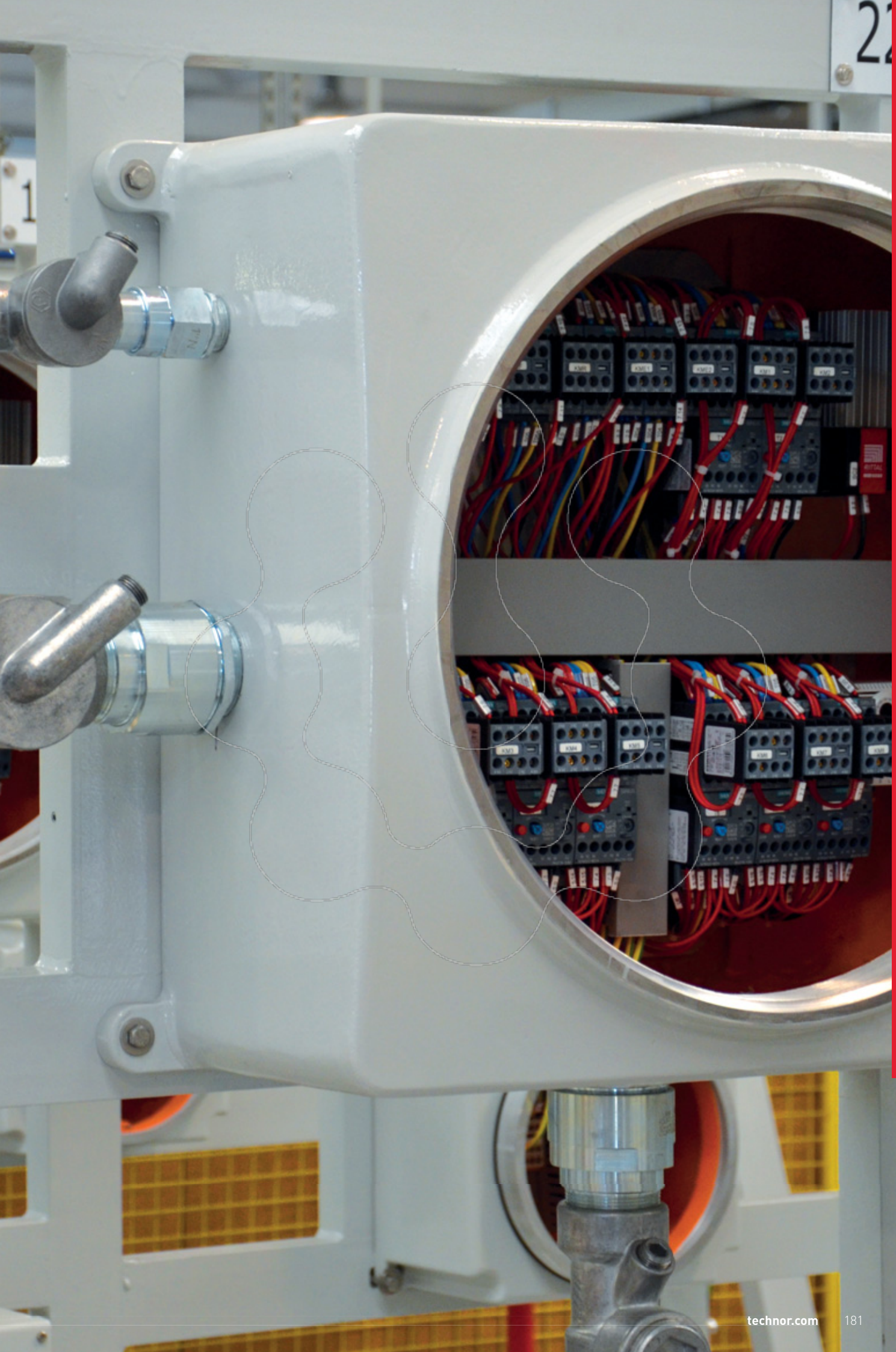
	METRIC	NPT UNI-6125	SEAL	CABLE RANGE (mm)	Ø EXTERNAL CABLE (mm)	EXTDIMENSIONS (mm)				
					F	A	B	C	D	E
SIZE 1	M20X1,5	1/2"	1A1	6 - 9	18	90	70	20	33	30
			1A2	9 - 12						
SIZE 2	M25X1,5	3/4"	2A1	6 - 9	24	90	70	20	40	36
			2A2	9 - 12						
			2A3	11 - 14						
			2A4	14 - 17						
SIZE 3	M32X1,5	1"	3A1	14 - 17	30	104	79	25	49	44
			3A2	17 - 20						
			3A3	20 - 23						
SIZE 5S	M40X1,5	1" 1/4	5A2	23 - 26	43	104	79	25	65	58
			5A3	26 - 29						
			5A4	29 - 32						
			5A5	32 - 36						
SIZE 5	M50X1,5	1" 1/2	5A2	23 - 26	43	104	79	25	65	58
			5A3	26 - 29						
			5A4	29 - 32						
			5A5	32 - 36						
SIZE 6	M63X1,5	2"	6A2	36 - 39	57	109	84	25	65	58
			6A3	39 - 42						
			6A4	42 - 46						
SIZE 7	M75X1,5	2" 1/2	7A2	44 - 48	-	-	-	-	-	-
			7A3	48 - 52						
			7A4	52 - 56						
			7A5	56 - 60						
SIZE 8	M80X1,5	3"	8A4	56 - 60	-	-	-	-	-	-
			8A5	59 - 63						
			8A6	63 - 67						
			8A7	67 - 71						

Assembly diagram



CODIFICATION TABLE

B14	#	#	#	0	#	#	#	N	
									N - WITHOUT SEAL
									S - WITH SET SEALS
									1 - INNER RUBBER SEAL A1
									2 - INNER RUBBER SEAL A2
								SEALS	3 - INNER RUBBER SEAL A3
									4 - INNER RUBBER SEAL A4
									5 - INNER RUBBER SEAL A5
									6 - INNER RUBBER SEAL A6
									7 - INNER RUBBER SEAL A7
									1 - ATEX/IECEX - GROUP II
								CERTIFICATE	2 - ATEX/IECEX- GROUP I
									5 - TR CU - GROUP II
									6 - TR CU - GROUP I
									1 - METRIC
							THREAD		2 - NPT
									3 - UNI-6125
									1 - SIZE 1
									2 - SIZE 2
									3 - SIZE 3
									4 - SIZE 4
							SIZE		5 - SIZE 5S
									6 - SIZE 6
									7 - SIZE 7
									8 - SIZE 8
									08 - PSM FREE NIPPLE METRIC
									09 - PSM FREE NIPPLE NPT
								TYPE	22 - PSM AX FREE NIPPLE METRIC _ BARRIER TYPE
									23 - PSM AX FREE NIPPLE NPT _ BARRIER TYPE
									01 - BNK BRASS NICKEL CHROME PLATED
								MATERIAL	03 - STAINLESS STEEL AISI316



METALLIC CABLE GLANDS

PSF (Male-Female)

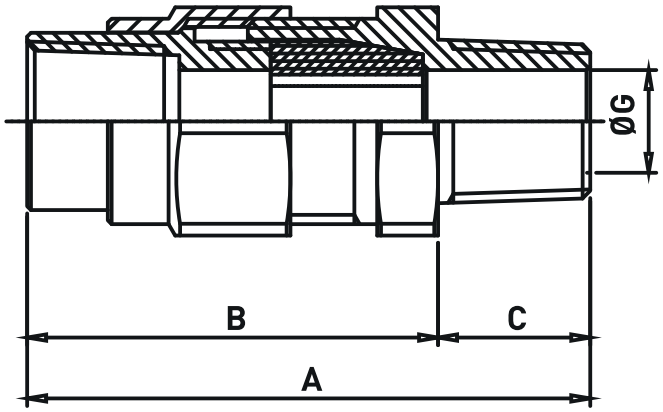


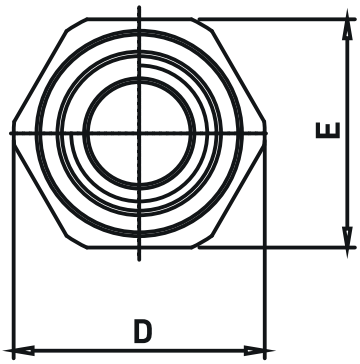
Single seal through "male-female" cable gland suitable for unarmoured cables.
Suitable for Zone 1/2 and Zone 21/22.

TECHNICAL FEATURES

Material	Nickel chrome plated brass AISI 316 L Stainless steel (other materials upon request)
IP rating	IP66
Operating temperature range	-52°C to +110°C
Approvals	Certified 02ATEX0084 (standard) TR CU (marking upon request, ordering code to be required) IECEx INE 14.0046X
Marking*	II 2 GD Ex db/eb IIC Ex db/eb I Ex tb IIIC IP66 I M2 Ex db/eb I * For group I certification is up to size 6.
Internal seals	EPDM
Threads	Metric, NPT, UNI-6125 (other thread upon request)
Accessories available upon request	Locknut, sealing gasket, earthing ring, star washer, protective shroud
Note	The Free Coupling thread can be provided Metric, NPT or UNI-6125

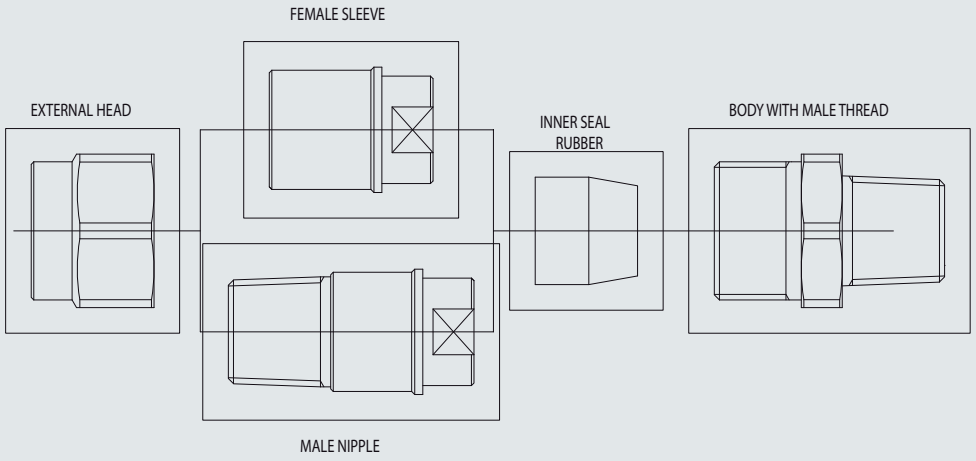
Dimensions





	METRIC	NPT UNI-6125	SEAL	CABLE RANGE (mm)	Ø EXTERNAL CABLE (mm)	EXTDIMENSIONS (mm)				
					G	A	B	C	D	E
SIZE 1	M20X1,5	1/2"	1A1	6 - 9	18	73	53	20	33	30
			1A2	9 - 12						
SIZE 2	M25X1,5	3/4"	2A1	6 - 9	24	73	53	20	40	36
			2A2	9 - 12						
			2A3	11 - 14						
			2A4	14 - 17						
SIZE 3	M32X1,5	1"	3A1	14 - 17	30	88	63	25	49	44
			3A2	17 - 20						
			3A3	20 - 23						
SIZE 5S	M40X1,5	1" 1/4	5A2	23 - 26	43	89	64	25	65	58
			5A3	26 - 29						
			5A4	29 - 32						
			5A5	32 - 36						
SIZE 5	M50X1,5	1" 1/2	5A2	23 - 26	43	89	64	25	65	58
			5A3	26 - 29						
			5A4	29 - 32						
			5A5	32 - 36						
SIZE 6	M63X1,5	2"	6A2	36 - 39	57	92	67	25	65	58
			6A3	39 - 42						
			6A4	42 - 46						
SIZE 7	M75X1,5	2" 1/2	7A2	44 - 48	-	-	-	-	-	-
			7A3	48 - 52						
			7A4	52 - 56						
			7A5	56 - 60						
SIZE 8	M80X1,5	3"	8A4	56 - 60	-	-	-	-	-	-
			8A5	59 - 63						
			8A6	63 - 67						
			8A7	67 - 71						

Assembly diagram



CODIFICATION TABLE

B14	#	#	#	0	#	#	#	N

SEALS	N - WITHOUT SEAL S - WITH SET SEALS 1 - INNER RUBBER SEAL A1 2 - INNER RUBBER SEAL A2 3 - INNER RUBBER SEAL A3 4 - INNER RUBBER SEAL A4 5 - INNER RUBBER SEAL A5 6 - INNER RUBBER SEAL A6 7 - INNER RUBBER SEAL A7
CERTIFICATE	1 - ATEX/IECEX - GROUP II 2 - ATEX/IECEX- GROUP I 5 - TR CU - GROUP II 6 - TR CU - GROUP I
THREAD	1 - METRIC 2 - NPT 3 - UNI-6125
SIZE	1 - SIZE 1 2 - SIZE 2 3 - SIZE 3 4 - SIZE 5S 5 - SIZE 5 6 - SIZE 6 7 - SIZE 7 8 - SIZE 8
TYPE	05 - PSF FREE COUPLING METRIC 06 - PSF FREE COUPLING NPT 19 - PSF AX FREE COUPLING METRIC _ BARRIER TYPE 20 - PSF AX FREE COUPLING NPT _ BARRIER TYPE
MATERIAL	01 - BNK BRASS NICKEL CHROME PLATED 03 - STAINLESS STEEL AISI316



PLASTIC CABLE GLANDS
Polyamide

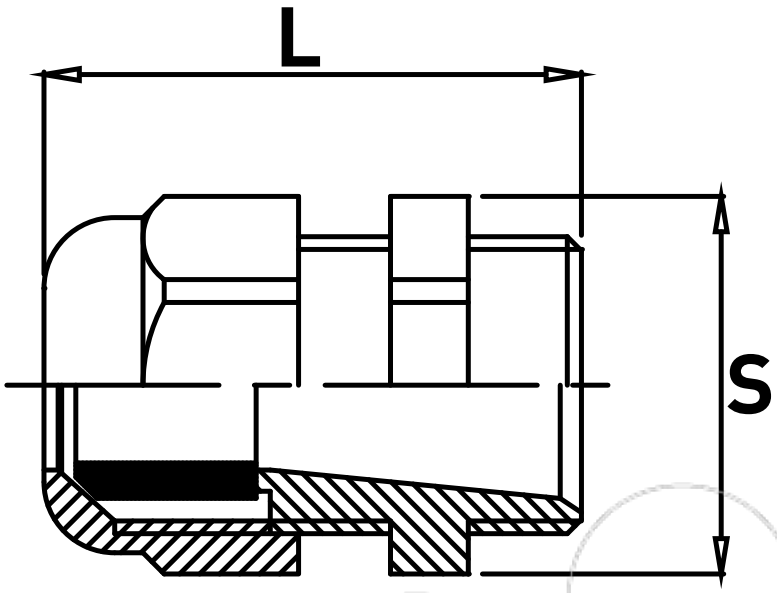


Single seal cable gland suitable for unarmoured
Suitable for Zone 1/2 and Zone 21/22.

TECHNICAL FEATURES

Material	Polyamide
IP rating	IP66/IP68
Ambient temperature range	-20°C to +80°C
Approvals	CESI 03 ATEX 305X
Marking	II 2 GD Ex e II/Ex i II Ex tD A21 IP66/68
Gasket	Neoprene
Threads	Metric, PG
Accessories available upon request	Locknut, Gasket

Dimensions



UN.. polyamide cable glands

CODE	TYPE	THREAD	COLOUR	Ø CABLE (mm)
B141001001000	UNI01XE - POLYAMIDE CABLE GLAND	M16X1,5	BLACK	6 - 10
B141001011000	UNI1XE - POLYAMIDE CABLE GLAND	M20X1,5	BLACK	7 - 12
B141001021000	UNI2XE - POLYAMIDE CABLE GLAND	M25X1,5	BLACK	13 - 18
B141001031000	UNI3XE - POLYAMIDE CABLE GLAND	M32X1,5	BLACK	18 - 25
B141001041000	UNI4XE - POLYAMIDE CABLE GLAND	M40X1,5	BLACK	22 - 32
B141001051000	UNI5XE - POLYAMIDE CABLE GLAND	M50X1,5	BLACK	30 - 38
B141001061000	UNI6XE - POLYAMIDE CABLE GLAND	M63X1,5	BLACK	34 - 44
B141002001000	UNI01XI - POLYAMIDE CABLE GLAND	M16X1,5	BLUE	6 - 10
B141002011000	UNI1XI - POLYAMIDE CABLE GLAND	M20X1,5	BLUE	7 - 12
B141002021000	UNI2XI - POLYAMIDE CABLE GLAND	M25X1,5	BLUE	13 - 18
B141002031000	UNI3XI - POLYAMIDE CABLE GLAND	M32X1,5	BLUE	18 - 25
B141002041000	UNI4XI - POLYAMIDE CABLE GLAND	M40X1,5	BLUE	22 - 32
B141002051000	UNI5XI - POLYAMIDE CABLE GLAND	M50X1,5	BLUE	30 - 38
B141002061000	UNI6XI - POLYAMIDE CABLE GLAND	M63X1,5	BLUE	34 - 44

SPARES & ACCESSORIES



Set of inner seals (under armour)

CODE	TYPE	Ø CABLE (mm)
B14071AS00000	SET OF INNER SEALS - C.G. SIZE 1	6-12
B14072AS00000	SET OF INNER SEALS - C.G. SIZE 2	6-17
B14073AS00000	SET OF INNER SEALS - C.G. SIZE 3	14-23
B14075AS00000	SET OF INNER SEALS - C.G. SIZE 5	23-36
B14076AS00000	SET OF INNER SEALS - C.G. SIZE 6	36-46
B14077AS00000	SET OF INNER SEALS - C.G. SIZE 7	44-60
B14078AS00000	SET OF INNER SEALS - C.G. SIZE 8	56-71



Set outer seals (external)

CODE	TYPE	Ø CABLE (mm)
B14071BS00000	SET OF OUTER SEALS - C.G. SIZE 1	8-17
B14072BS00000	SET OF OUTER SEALS - C.G. SIZE 2	14-23
B14073BS00000	SET OF OUTER SEALS - C.G. SIZE 3	20-29
B14075BS00000	SET OF OUTER SEALS - C.G. SIZE 5	29-42
B14076BS00000	SET OF OUTER SEALS - C.G. SIZE 6	44-56
B14077BS00000	SET OF OUTER SEALS - C.G. SIZE 7	55-67
B14078BS00000	SET OF OUTER SEALS - C.G. SIZE 8	63-77

Inner seals

CABLE GLAND SIZE	CODE	TYPE	Ø CABLE (mm)
SIZE 1	B14071A100000	1A1 RUBBER SEAL	6 - 9
	B14071A200000	1A2 RUBBER SEAL	9 - 12
SIZE 2	B14072A100000	2A1 RUBBER SEAL	6 - 9
	B14072A200000	2A2 RUBBER SEAL	9 - 12
	B14072A300000	2A3 RUBBER SEAL	11 - 14
	B14072A400000	2A4 RUBBER SEAL	14 - 17
SIZE 3	B14073A100000	3A1 RUBBER SEAL	14 - 17
	B14073A200000	3A2 RUBBER SEAL	17 - 20
SIZE 5/5S	B14075A200000	5A2 RUBBER SEAL	23 - 26
	B14075A300000	5A3 RUBBER SEAL	26 - 29
	B14075A400000	5A4 RUBBER SEAL	29 - 32
	B14075A500000	5A5 RUBBER SEAL	32 - 36
SIZE 6	B14076A200000	6A2 RUBBER SEAL	36 - 39
	B14076A300000	6A3 RUBBER SEAL	39 - 42
	B14076A400000	6A4 RUBBER SEAL	42 - 46
SIZE 7	B14077A200000	7A2 RUBBER SEAL	44 - 48
	B14077A300000	7A3 RUBBER SEAL	48 - 52
	B14077A400000	7A4 RUBBER SEAL	52 - 56
	B14077A500000	7A5 RUBBER SEAL	56 - 60
SIZE 8	B14078A400000	8A4 RUBBER SEAL	56 - 60
	B14078A500000	8A5 RUBBER SEAL	59 - 63
	B14078A600000	8A6 RUBBER SEAL	63 - 67
	B14078A700000	8A7 RUBBER SEAL	67 - 71

Outer seals

CABLE GLAND SIZE	CODE	TYPE	Ø CABLE (mm)
SIZE 1	B14071B100000	1B1 RUBBER SEAL	8 - 11
	B14071B200000	1B2 RUBBER SEAL	11 - 14
	B14071B300000	1B3 RUBBER SEAL	14 - 17
SIZE 2	B14072B100000	2B1 RUBBER SEAL	14 - 17
	B14072B200000	2B2 RUBBER SEAL	17 - 20
	B14072B300000	2B3 RUBBER SEAL	20 - 23
SIZE 3	B14073B100000	3B1 RUBBER SEAL	20 - 23
	B14073B200000	3B2 RUBBER SEAL	23 - 26
	B14073B300000	3B3 RUBBER SEAL	26 - 29
SIZE 5/5S	B14075B200000	5B2 RUBBER SEAL	29 - 32
	B14075B300000	5B3 RUBBER SEAL	32 - 36
	B14075B400000	5B4 RUBBER SEAL	36 - 39
	B14075B500000	5B5 RUBBER SEAL	39 - 42
SIZE 6	B14076B200000	6B2 RUBBER SEAL	44 - 48
	B14076B300000	6B3 RUBBER SEAL	48 - 52
	B14076B400000	6B4 RUBBER SEAL	52 - 56
SIZE 7	B14077B200000	7B2 RUBBER SEAL	55 - 59
	B14077B300000	7B3 RUBBER SEAL	59 - 63
	B14077B400000	7B4 RUBBER SEAL	63 - 67
SIZE 8	B14078B400000	8B4 RUBBER SEAL	63 - 67
	B14078B500000	8B5 RUBBER SEAL	65 - 69
	B14078B600000	8B6 RUBBER SEAL	69 - 73
	B14078B700000	8B7RUBBER SEAL	73 - 77

SPARES & ACCESSORIES

Protective shroud EPDM-55

CODE	TYPE	CABLE GLAND SIZE
B140901010000	PGA-1 PVC SHROUD	SIZE 1
B140901020000	PGA-2 PVC SHROUD	SIZE 2
B140901030000	PGA-3 PVC SHROUD	SIZE 3
B140901050000	PGA-5 PVC SHROUD	SIZE 5/5S
B140901060000	PGA-6 PVC SHROUD	SIZE 6
B140901070000	PGA-7 PVC SHROUD	SIZE 7
B140901080000	PGA-8 PVC SHROUD	SIZE 8

Sealants for barrier type cable glands

CODE	TYPE
B141301002000	MANUAL APPLICATOR FOR 200ML CARTRIDGE, TYPE 2012/1
B141302003000	200ML CARTRIDGE WITH MIXING NOOZLE, TYPE 2012
B141302004000	PACKAGE OF N. 6 200ML CARTRIDGE WITH MIXING NOOZLE, TYPE 2012
B160110030000	MANUAL APPLICATOR FOR 310ML CARTRIDGE, TYPE 7091
B160110003000	SINGLE 310ML CARTRIDGE WITH NOOZLE, TYPE 7091

CODE	TYPE	THREAD
B141101000000	GK-16 - AMF GASKET	METRIC M16
B141101010000	GK-20 - AMF GASKET	METRIC M20
B141101020000	GK-25 - AMF GASKET	METRIC M25
B141101030000	GK-32 - AMF GASKET	METRIC M32
B141101040000	GK-40 - AMF GASKET	METRIC M40
B141101050000	GK-50 - AMF GASKET	METRIC M50
B141101060000	GK-63 - AMF GASKET	METRIC M63
B141101070000	GK-75 - AMF GASKET	METRIC M75
B141101081000	GK-80 - AMF GASKET	METRIC M80
B141102010000	GK-1 - AMF GASKET	INCHES 1/2"
B141102020000	GK-2 - AMF GASKET	INCHES 3/4"
B141102030000	GK-3 - AMF GASKET	INCHES 1"
B141102040000	GK-5 - AMF GASKET	INCHES 1" 1/4
B141102050000	GK-5 - AMF GASKET	INCHES 1" 1/2
B141102060000	GK-6 - AMF GASKET	INCHES 2"
B141102070000	GK-7 - AMF GASKET	INCHES 2" 1/2
B141102080000	GK-8 - AMF GASKET	INCHES 3"

CODE		TYPE	THREAD	
BRASS	AISI 316 L			
B171411100000	B171421100000	DL-1 - LOCKNUT	M20X1,5	
B171412100000	B171422100000	DL-2 - LOCKNUT	M25X1,5	
B171413100000	B171423100000	DL-3 - LOCKNUT	M32X1,5	
B171414100000	B171424100000	DL-4 - LOCKNUT	M40X1,5	
B171415100000	B171425100000	DL-5 - LOCKNUT	M50X1,5	
B171416100000	B171426100000	DL-6 - LOCKNUT	M63X1,5	
B171417100000	B171427100000	DL-7 - LOCKNUT	M75X1,5	
B171418100000	B171428100000	DL-8 - LOCKNUT	M80X1,5	
B171411200000	B171421200000	DL-1 - LOCKNUT	1/2"	NPT
B171412200000	B171422200000	DL-2 - LOCKNUT	3/4"	NPT
B171413200000	B171423200000	DL-3 - LOCKNUT	1"	NPT
B171414200000	B171424200000	DL-4 - LOCKNUT	1" 1/4	NPT
B171415200000	B171425200000	DL-5 - LOCKNUT	1" 1/2	NPT
B171416200000	B171426200000	DL-6 - LOCKNUT	2"	NPT
B171417200000	B171427200000	DL-7 - LOCKNUT	2" 1/2	NPT
B171418200000	B171428200000	DL-8 - LOCKNUT	3"	NPT
B171411500000	B171421500000	DL-1 - LOCKNUT	1/2"	UNI-6125
B171412500000	B171422500000	DL-2 - LOCKNUT	3/4"	UNI-6125
B171413500000	B171423500000	DL-3 - LOCKNUT	1"	UNI-6125
B171414500000	B171424500000	DL-4 - LOCKNUT	1" 1/4	UNI-6125
B171415500000	B171425500000	DL-5 - LOCKNUT	1" 1/2	UNI-6125
B171416500000	B171426500000	DL-6 - LOCKNUT	2"	UNI-6125
B171417500000	B171427500000	DL-7 - LOCKNUT	2" 1/2	UNI-6125
B171418500000	B171428500000	DL-8 - LOCKNUT	3"	UNI-6125

CODE	TYPE	CABLE GLAND SIZE
B140801010000	PT-1 EARTHING RING	SIZE 1
B140801020000	PT-2 EARTHING RING	SIZE 2
B140801030000	PT-3 EARTHING RING	SIZE 3
B140801040000	PT-4 EARTHING RING	SIZE 4/5S
B140801050000	PT-5 EARTHING RING	SIZE 5
B140801060000	PT-6 EARTHING RING	SIZE 6
B140801070000	PT-7 EARTHING RING	SIZE 7
B140801080000	PT-8 EARTHING RING	SIZE 8

CODE	TYPE	THREAD SIZE
B171820220	STAR WASHER Ø22	M20
B171820270	STAR WASHER Ø27	M25
B171820330	STAR WASHER Ø33	M32
B171820420	STAR WASHER Ø52	M50
B171820520	STAR WASHER Ø65	M63
B171820650	STAR WASHER Ø77	M75
B171820770	STAR WASHER Ø82	M80

BMF/BFF/BMM Series - Three pieces unions



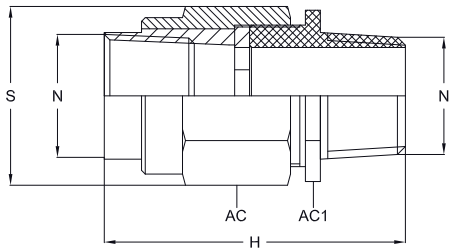
Three pieces unions for gas group IIB enable an independent rotation and the connection between pipes of an electrical equipment and enclosures or different devices of an explosion-proof equipment.

- BFF series (female/female)
- BMF series (male/female)
- BMM series (male/male)

TECHNICAL FEATURES

Material	Galvanised steel (other materials upon request)
IP rating	IP66/IP67
Ambient temperature range	ATEX Galvanised steel: -20°C to +60°C with EPDM gasket Stainless Steel: -55°C to +60°C with SI/50 gasket (upon request) IEC Ex Galvanised steel: -20°C to +60°C with SILICON gasket (upon request) Stainless Steel: -50°C to +60°C with SILICON gasket (upon request) Special version suitable for high temperature +150°C is available upon request (the suffix become RBMF...)
Approvals	CESI 99 ATEX 034U IECEx CES 10.0002U TR CU
Marking	II 2GD Ex d IIB Gb Ex tb IIIC Db IP66/67 Special version suitable for IIC group of gases is available upon request
Thread	NPT, UNI-6125 (other thread upon request)

Dimensions BMF



BMF - Male/Female three pieces unions

TYPE	CODE	SIZE	THREAD	DIMENSIONS [mm]				WEIGHT [Kg]
				H	S	AC	AC1	
BMF-1	B170623131020	1/2"	UNI-6125	58	35	30	27	0,150
BMF-2	B170623231020	3/4"	UNI-6125	58	40	35	32	0,185
BMF-3	B170623331020	1"	UNI-6125	70	48	42	40	0,300
BMF-4	B170623431020	1" 1/4	UNI-6125	87	60	55	59	0,760
BMF-5	B170623531020	1" 1/2	UNI-6125	87	75	70	67	1,000
BMF-6	B170623631020	2"	UNI-6125	87	90	84	77	1,400
BMF-7	B170623731020	2" 1/2	UNI-6125	98	117	108	99	2,350
BMF-8	B170623831020	3"	UNI-6125	98	132	121	108	2,800
BMF-1	B170623121020	1/2"	NPT	58	35	30	27	0,150
BMF-2	B170623221020	3/4"	NPT	58	40	35	32	0,185
BMF-3	B170623321020	1"	NPT	70	48	42	40	0,300
BMF-4	B170623421020	1" 1/4	NPT	87	60	55	59	0,760
BMF-5	B170623521020	1" 1/2	NPT	87	75	70	67	1,000
BMF-6	B170623621020	2"	NPT	87	90	84	77	1,400
BMF-7	B170623721020	2" 1/2	NPT	98	117	108	99	2,350
BMF-8	B170623821020	3"	NPT	98	132	121	108	2,800

FITTINGS

BMF/BFF/BMM Series - Three pieces unions



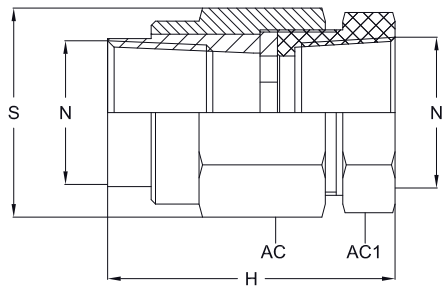
Three pieces unions for gas group IIB enable an independent rotation and the connection between pipes of an electrical equipment and enclosures or different devices of an explosion-proof equipment.

- BFF series (female/female)
- BMF series (male/female)
- BMM series (male/male)

TECHNICAL FEATURES

Material	Galvanised steel (other materials upon request)
IP rating	IP66/IP67
Ambient temperature range	ATEX Galvanised steel: -20°C to +60°C with EPDM gasket Stainless Steel: -55°C to +60°C with SI/50 gasket (upon request) IEC Ex Galvanised steel: -20°C to +60°C with SILICON gasket (upon request) Stainless Steel: -50°C to +60°C with SILICON gasket (upon request) Special version suitable for high temperature +150°C is available upon request (the suffix become RBFF...)
Approvals	CESI 99 ATEX 034U IECEx CES 10.0002U TR CU
Marking	II 2GD Ex d IIB Gb Ex tb IIIC Db IP66/67 Special version suitable for IIC group of gases is available upon request
Thread	NPT, UNI-6125 (other thread upon request)

Dimensions BFF



BFF - Female/Female three pieces unions

TYPE	CODE	SIZE	THREAD	DIMENSIONS [mm]				WEIGHT [Kg]
				H	S	AC	AC1	
BFF-1	B170633130020	1/2"	UNI-6125	46	35	30	27	0,125
BFF-2	B170633230020	3/4"	UNI-6125	46	40	35	32	0,150
BFF-3	B170633330020	1"	UNI-6125	56	48	42	40	0,235
BFF-4	B170633430020	1" 1/4	UNI-6125	63	60	55	59	0,640
BFF-5	B170633530020	1" 1/2	UNI-6125	66	75	70	67	0,960
BFF-6	B170633630020	2"	UNI-6125	66	90	84	77	1,220
BFF-7	B170633730020	2" 1/2	UNI-6125	71	117	108	99	2,240
BFF-8	B170633830020	3"	UNI-6125	71	132	121	108	2,600
BFF-1	B170633120020	1/2"	NPT	46	35	30	27	0,125
BFF-2	B170633220020	3/4"	NPT	46	40	35	32	0,150
BFF-3	B170633320020	1"	NPT	56	48	42	40	0,235
BFF-4	B170633420020	1" 1/4	NPT	63	60	55	59	0,640
BFF-5	B170633520020	1" 1/2	NPT	66	75	70	67	0,960
BFF-6	B170633620020	2"	NPT	66	90	84	77	1,220
BFF-7	B170633720020	2" 1/2	NPT	71	117	108	99	2,240
BFF-8	B170633820020	3"	NPT	71	132	121	108	2,600

BMF/BFF/BMM Series - Three pieces unions



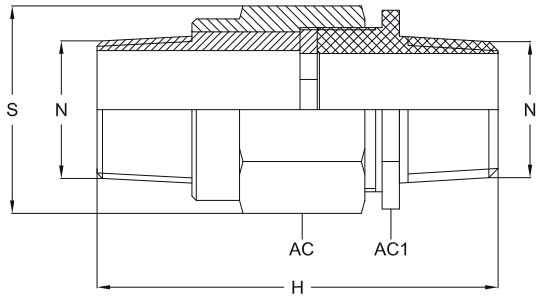
Three pieces unions for gas group IIB enable an independent rotation and the connection between pipes of an electrical equipment and enclosures or different devices of an explosion-proof equipment.

- BFF series (female/female)
- BMF series (male/female)
- BMM series (male/male)

TECHNICAL FEATURES

Material	Galvanised steel (other materials upon request)
IP rating	IP66/IP67
Ambient temperature range	ATEX Galvanised steel: -20°C to +60°C with EPDM gasket Stainless Steel: -55°C to +60°C with SI/50 gasket (upon request) IEC Ex Galvanised steel: -20°C to +60°C with SILICON gasket (upon request) Stainless Steel: -50°C to +60°C with SILICON gasket (upon request) Special version suitable for high temperature +150°C is available upon request (the suffix become RBMM...)
Approvals	CESI 99 ATEX 034U IECEx CES 10.0002U TR CU
Marking	II 2GD Ex d IIB Gb Ex tb IIIC Db IP66/67 Special version suitable for IIC group of gases is available upon request
Thread	NPT, UNI-6125 (other thread upon request)

Dimensions BMM



BMM - Male/Male three pieces unions

TYPE	CODE	SIZE	THREAD	DIMENSIONS [mm]				WEIGHT [Kg]
				H	S	AC	AC1	
BMM-1	B170613131020	1/2"	UNI-6125	86	35	30	27	0,175
BMM-2	B170613231020	3/4"	UNI-6125	86	40	35	32	0,230
BMM-3	B170613331020	1"	UNI-6125	99	48	42	40	0,350
BMM-4	B170613431020	1" ¼	UNI-6125	115	60	55	59	0,910
BMM-5	B170613531020	1" 1/2	UNI-6125	115	75	70	67	1,220
BMM-6	B170613631020	2"	UNI-6125	115	90	84	77	1,620
BMM-7	B170613731020	2" 1/2	UNI-6125	126	117	108	99	2,900
BMM-8	B170613831020	3"	UNI-6125	126	132	121	108	3,350
BMM-1	B170613121020	1/2"	NPT	86	35	30	27	0,175
BMM-2	B170613221020	3/4"	NPT	86	40	35	32	0,230
BMM-3	B170613321020	1"	NPT	99	48	42	40	0,350
BMM-4	B170613421020	1" 1/4	NPT	115	60	55	59	0,910
BMM-5	B170613521020	1" 1/2	NPT	115	75	70	67	1,220
BMM-6	B170613621020	2"	NPT	115	90	84	77	1,620
BMM-7	B170613721020	2" 1/2	NPT	126	117	108	99	2,900
BMM-8	B170613821020	3"	NPT	126	132	121	108	3,350

FITTINGS

EYS Series - Sealing fittings

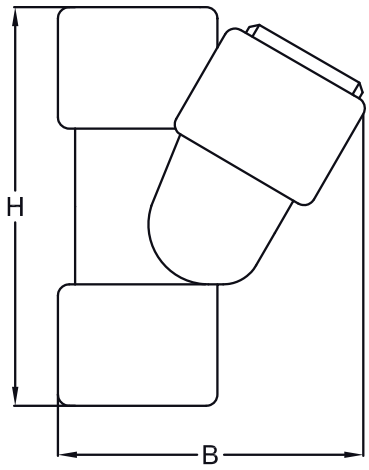


Sealing fittings prevent the passage of gas, vapors or flames through pipes system.
EYS series vertical fittings are available in two different dimensions: the first up to 1''; the second up to 3'' with an additional lateral opening for easy insertion of glass-fiber.
EZS series are used for both vertical and horizontal mounting.
The fittings must be installed as close as possible to the Ex d junction box and must be filled using CRV 420 approved resin. The sealing compound is supplied, in the quantity indicated in the table below, along with
the sealing fitting. Other sealing compounds are not allowed.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-20°C to +100°C
Approvals	IECEx CES 14.0019X CESI 03 ATEX 085 TR CU
Marking	II 2GD Ex db IIC Gb Ex tb IIIC Db IP66
Thread	NPT, UNI-6125 (other threads upon request)
Accessories available upon request	CRV420 sealinig compound, fiber.

Dimensions EYS



Vertical sealing fittings EYS

TYPE	CODE	SIZE	THREAD	DIMENSIONS [mm]		RESIN QUANTITY	WEIGHT [Kg]
				H	B		
EYS-1	B170524130020	1/2"	UNI-6125	77	56	35 GR.	0,175
EYS-2	B170524230020	3/4"	UNI-6125	87	66	50 GR.	0,230
EYS-3	B170524330020	1"	UNI-6125	105	82	100 GR.	0,350
EYS-4	B170524430020	1" 1/4	UNI-6125	145	84	240 GR.	0,910
EYS-5	B170524530020	1" 1/2	UNI-6125	145	84	240 GR.	1,220
EYS-6	B170524630020	2"	UNI-6125	150	95	380 GR.	1,620
EYS-7	B170524730020	2" 1/2	UNI-6125	200	134	1250 GR.	2,900
EYS-8	B170524830020	3"	UNI-6125	200	134	1250 GR.	3,350
EYS-1	B170524120020	1/2"	NPT	77	56	35 GR.	0,175
EYS-2	B170524220020	3/4"	NPT	87	66	50 GR.	0,230
EYS-3	B170524320020	1"	NPT	105	82	100 GR.	0,350
EYS-4	B170524420020	1" 1/4	NPT	145	84	240 GR.	0,910
EYS-5	B170524520020	1" 1/2	NPT	145	84	240 GR.	1,220
EYS-6	B170524620020	2"	NPT	150	95	380 GR.	1,620
EYS-7	B170524720020	2" 1/2	NPT	200	134	1250 GR.	2,900
EYS-8	B170524820020	3"	NPT	200	134	1250 GR.	3,350

Sealing fittings accessories

TYPE	CODE	WEIGHT
CRV 420/300 SEALING COMPOUND 300 GR.	B170530300000	300 GR.
CRV 420/400 SEALING COMPOUND 400 GR.	B170530400000	400 GR.
CRV 420/1000 SEALING COMPOUND 1000 GR.	B170531000000	1000 GR.
FAB 25 FIBER 25 GR.	B170540025000	250 GR.
FAB 50 FIBER 50 GR.	B170540050000	500 GR.

FITTINGS

EZS Series - Sealing fittings

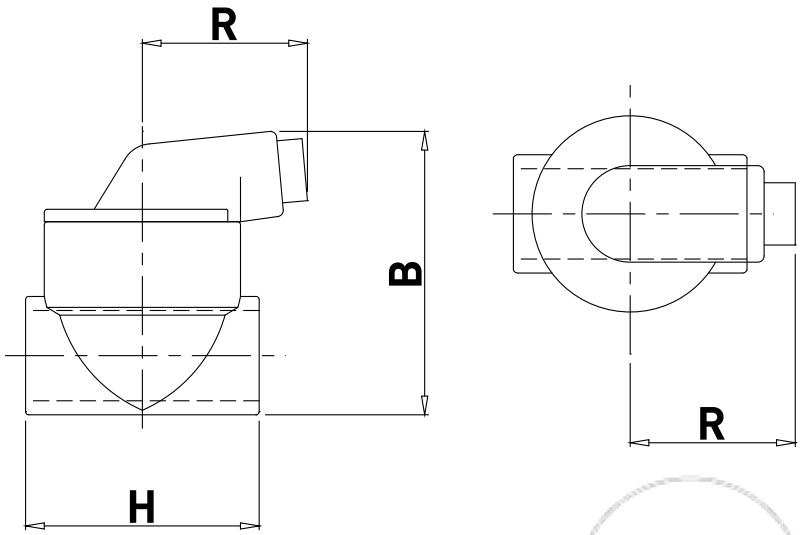


Sealing fittings prevent the passage of gas, vapors or flames through pipes system.
EYS series vertical fittings are available in two different dimensions: the first up to 1'';
the second up to 3'' with an additional lateral opening for easy insertion of glass-fiber.
EZS series are used for both vertical and horizontal mounting.
The fittings must be installed as close as possible to the Ex d junction box and must be filled using CRV 420 approved resin. The sealing compound is supplied, in the quantity indicated in the table below, along with
the sealing fitting. Other sealing compounds are not allowed.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66
Ambient temperature range	-20°C to +100°C
Approvals	IECEx CES 14.0019X CESI 03 ATEX 085 TR CU
Marking	II 2GD Ex db IIC Gb Ex tb IIIC Db IP66
Thread	NPT, UNI-6125 (other threads upon request)
Accessories available upon request	CRV420 sealinig compound, fiber.

Dimensions EZS



Horizontal sealing fittings EZS

TYPE	CODE	SIZE	THREAD	DIMENSIONS [mm]			RESIN QUANTITY	WEIGHT [Kg]
				H	B	R		
EZS-1	B170514130020	1/2"	UNI-6125	72	83	50	140 GR.	0.26
EZS-2	B170514230020	3/4"	UNI-6125	72	83	50	140 GR.	0.25
EZS-3	B170514330020	1"	UNI-6125	74	92	50	140 GR.	0.27
EZS-4	B170514430020	1" 1/4	UNI-6125	98	110	60	390 GR.	0.52
EZS-5	B170514530020	1" 1/2	UNI-6125	98	110	60	390 GR.	0.48
EZS-6	B170514630020	2"	UNI-6125	130	120	60	570 GR.	0.70
EZS-7	B170514730020	2" 1/2	UNI-6125	142	160	90	1000 GR.	1.50
EZS-8	B170514830020	3"	UNI-6125	142	160	90	1000 GR.	1.74
EZS-1	B170514120020	1/2"	NPT	72	83	50	140 GR.	0.26
EZS-2	B170514220020	3/4"	NPT	72	83	50	140 GR.	0.25
EZS-3	B170514320020	1"	NPT	74	92	50	140 GR.	0.27
EZS-4	B170514420020	1" 1/4	NPT	98	110	60	390 GR.	0.52
EZS-5	B170514520020	1" 1/2	NPT	98	110	60	390 GR.	0.48
EZS-6	B170514620020	2"	NPT	130	120	60	570 GR.	0.70
EZS-7	B170514720020	2" 1/2	NPT	142	160	90	1000 GR.	1.50
EZS-8	B170514820020	3"	NPT	142	160	90	1000 GR.	1.74

Sealing fittings accessories

TYPE	CODE	WEIGHT
CRV 420/300 SEALING COMPOUND 300 GR.	B170530300000	300 GR.
CRV 420/400 SEALING COMPOUND 400 GR.	B170530400000	400 GR.
CRV 420/1000 SEALING COMPOUND 1000 GR.	B170531000000	1000 GR.
FAB 25 FIBER 25 GR.	B170540025000	250 GR.
FAB 50 FIBER 50 GR.	B170540050000	500 GR.

FITTINGS
NP Series - Nipples

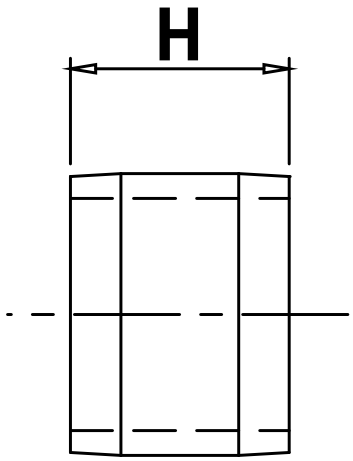


NP series nipples are used to connect equipment or other unions with female hub.

TECHNICAL FEATURES

Material	Galvanised steel (other materials upon request)
IP rating	IP66/IP67
Ambient temperature range	ATEX Galvanised steel: -40°C to +150°C Stainless Steel: -55°C to +150°C (upon request) IEC Ex Galvanised steel: -40°C to +150°C (upon request) Stainless Steel: -50°C to +150°C (upon request)
Approvals	CESI 01 ATEX 104U IECEx CES 15.0005U TR CU
Marking	II 2GD Ex d/e IIC Gb Ex tb IIIC Db IP66/67
Thread	NPT, UNI-6125 (other thread upon request)

Dimensions NP



Nipples - NP

TYPE	CODE	SIZE	THREAD	LENGHT H	WEIGHT [Kg]
NP-1	B170331300020	1/2"	UNI-6125	48	0,050
NP-2	B170332300020	3/4"	UNI-6125	60	0,060
NP-3	B170333300020	1"	UNI-6125	55	0,100
NP-4	B170334300020	1" 1/4	UNI-6125	55	0,140
NP-5	B170335300020	1" 1/2	UNI-6125	55	0,150
NP-6	B170336300020	2"	UNI-6125	55	0,200
NP-7	B170337300020	2" 1/2	UNI-6125	68	0,450
NP-8	B170338300020	3"	UNI-6125	68	0,700
NP-1	B170331200020	1/2"	NPT	48	0,050
NP-2	B170332200020	3/4"	NPT	60	0,060
NP-3	B170333200020	1"	NPT	55	0,100
NP-4	B170334200020	1" 1/4	NPT	55	0,140
NP-5	B170335200020	1" 1/2	NPT	55	0,150
NP-6	B170336200020	2"	NPT	55	0,200
NP-7	B170337200020	2" 1/2	NPT	68	0,450
NP-8	B170338200020	3"	NPT	68	0,700

FITTINGS
EM Series - Unions

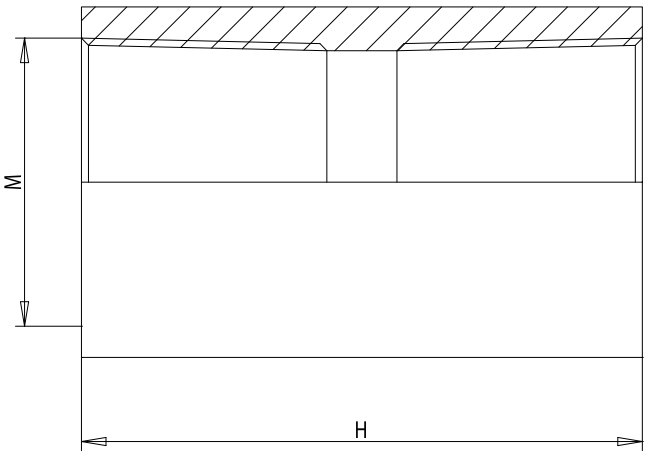


EM series couplings are used for connection of pipes with threaded male ends.

TECHNICAL FEATURES

Material	Galvanised steel (other materials upon request)
IP rating	IP66/IP67
Ambient temperature range	ATEX Galvanised steel: -40°C to +150°C Stainless Steel: -55°C to +150°C (upon request) IEC Ex Galvanised steel: -40°C to +150°C (upon request) Stainless Steel: -50°C to +150°C (upon request)
Approvals	CESI 01 ATEX 104U IECEx CES 15.0005U TR CU
Marking	II 2GD Ex d/e IIC Gb Ex tb IIIC Db IP66/67
Thread	NPT, UNI-6125 (other thread upon request)

Dimensions EM



Coupling - EM

TYPE	CODE	SIZE	THREAD	LENGHT H	WEIGHT [Kg]
EM-1	B170431300020	1/2"	UNI-6125	39	0,090
EM-2	B170432300020	3/4"	UNI-6125	39	0,080
EM-3	B170433300020	1"	UNI-6125	51	0,150
EM-4	B170434300020	1" 1/4	UNI-6125	51	0,270
EM-5	B170435300020	1" 1/2	UNI-6125	51	0,270
EM-6	B170436300020	2"	UNI-6125	51	0,450
EM-7	B170437300020	2" 1/2	UNI-6125	65	0,650
EM-8	B170438300020	3"	UNI-6125	65	0,800
EM-1	B170431200020	1/2"	NPT	39	0,090
EM-2	B170432200020	3/4"	NPT	39	0,080
EM-3	B170433200020	1"	NPT	51	0,150
EM-4	B170434200020	1" 1/4	NPT	51	0,270
EM-5	B170435200020	1" 1/2	NPT	51	0,270
EM-6	B170436200020	2"	NPT	51	0,450
EM-7	B170437200020	2" 1/2	NPT	65	0,650
EM-8	B170438200020	3"	NPT	65	0,800

FITTINGS
ELF Series - Elbows

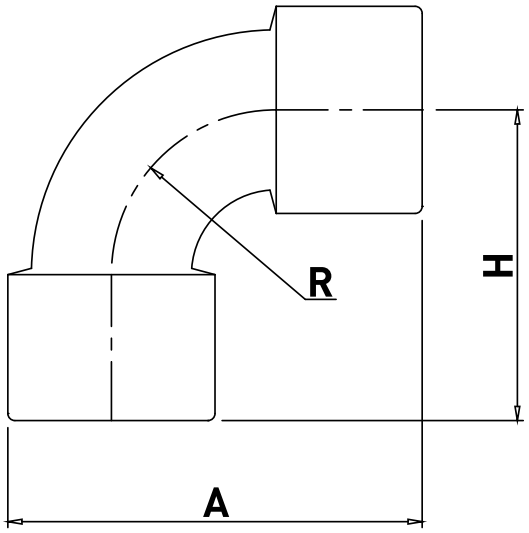


90° non-inspectable elbows are used in conduit system of electrical equipment.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	IP66/IP67
Ambient temperature range	ATEX -55°C to +150°C IEC Ex -50°C to +150°C (upon request)
Approvals	IECEx CES 15.0005U CESI 01 ATEX 104U TR CU
Marking	II 2GD Ex d/e IIC Gb Ex tb IIIC Db IP66/67
Thread	NPT, UNI-6125 (other thread upon request)

Dimensions ELF



Female-Female elbow - ELF

TYPE	CODE	SIZE	THREAD	DIMENSIONS [mm]			WEIGHT [Kg]
				A	H	R	
ELF-1	B170734130020	1/2"	UNI-6125	60	45	30	0.12
ELF-2	B170734230020	3/4"	UNI-6125	75	55	30	0.10
ELF-3	B170734330020	1"	UNI-6125	85	65	35	0.20
ELF-4	B170734430020	1" 1/4	UNI-6125	100	75	50	0.39
ELF-5	B170734530020	1" 1/2	UNI-6125	110	87	50	0.37
ELF-6	B170734630020	2"	UNI-6125	135	98	60	0.62
ELF-7	B170734730020	2" 1/2	UNI-6125	175	135	65	0.88
ELF-8	B170734830020	3"	UNI-6125	210	160	85	1.48
ELF-1	B170734120020	1/2"	NPT	60	45	30	0.12
ELF-2	B170734220020	3/4"	NPT	75	55	30	0.10
ELF-3	B170734320020	1"	NPT	85	65	35	0.20
ELF-4	B170734420020	1" 1/4	NPT	100	75	50	0.39
ELF-5	B170734520020	1" 1/2	NPT	110	87	50	0.37
ELF-6	B170734620020	2"	NPT	135	98	60	0.62
ELF-7	B170734720020	2" 1/2	NPT	175	135	65	0.88
ELF-8	B170734820020	3"	NPT	210	160	85	1.48

FITTINGS

LBH Series - Open elbows

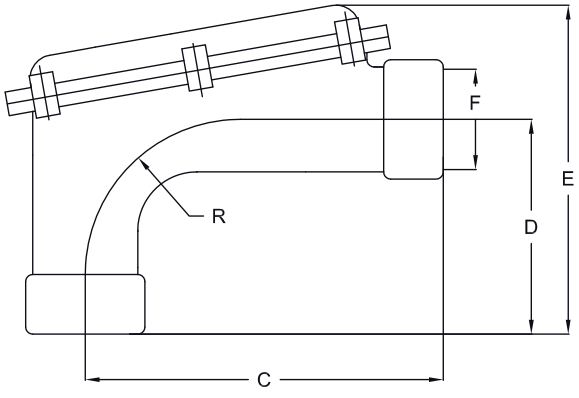


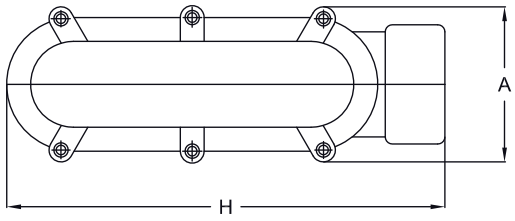
LBH and LBHS series L shaped open elbows are used for the cables run in conduit system of electrical installations.
The flanged opening enables easy inspection and insertion of electrical cables.

TECHNICAL FEATURES

Material	Aluminium with low content of copper
IP rating	
Ambient temperature range	ATEX (-20°C,+60°C)
Approvals	CESI 03 ATEX 141U TR CU
Marking	II 2 G Ex d IIB
Thread	NPT, UNI-6125 (other threads upon request)

Dimensions LBH





Open elbows LBH

TYPE	CODE	SIZE	THREAD	DIMENSIONS [mm]						WEIGHT [Kg]
				A	H	C	D	E	R	
LBH-1	B170814130020	1/2"	UNI-6125	70	165	132	45	95	21	0.434
LBH-2	B170814230020	3/4"	UNI-6125	70	165	132	45	95	21	0.404
LBH-3	B170814330020	1"	UNI-6125	70	168	132	60	112	30	0.455
LBH-4	B170814430020	1" 1/4	UNI-6125	100	230	175	83	155	50	1.277
LBH-5	B170814530020	1" 1/2	UNI-6125	110	265	220	83	132	70	1.142
LBH-6	B170814630020	2"	UNI-6125	110	265	220	80	132	70	1.024
LBH-7	B170814730020	2" 1/2	UNI-6125	136	363	267	140	250	96	3.569
LBH-8	B170814830020	3"	UNI-6125	136	363	267	140	250	96	3.171
LBH-1	B170814120020	1/2"	NPT	70	165	132	45	95	21	0.434
LBH-2	B170814220020	3/4"	NPT	70	165	132	45	95	21	0.404
LBH-3	B170814320020	1"	NPT	70	168	132	60	112	30	0.455
LBH-4	B170814420020	1" 1/4	NPT	100	230	175	83	155	50	1.277
LBH-5	B170814520020	1" 1/2	NPT	110	265	220	83	132	70	1.142
LBH-6	B170814620020	2"	NPT	110	265	220	80	132	70	1.024
LBH-7	B170814720020	2" 1/2	NPT	136	363	267	140	250	96	3.569
LBH-8	B170814820020	3"	NPT	136	363	267	140	250	96	3.171

DB Series - Aluminium bushings



DB...A series bushings are made of aluminium. They are screwed to the pipe and they work as a cable guard. They prevent the cable from rubbing on any pipe burr/edge which could damage its sheath.

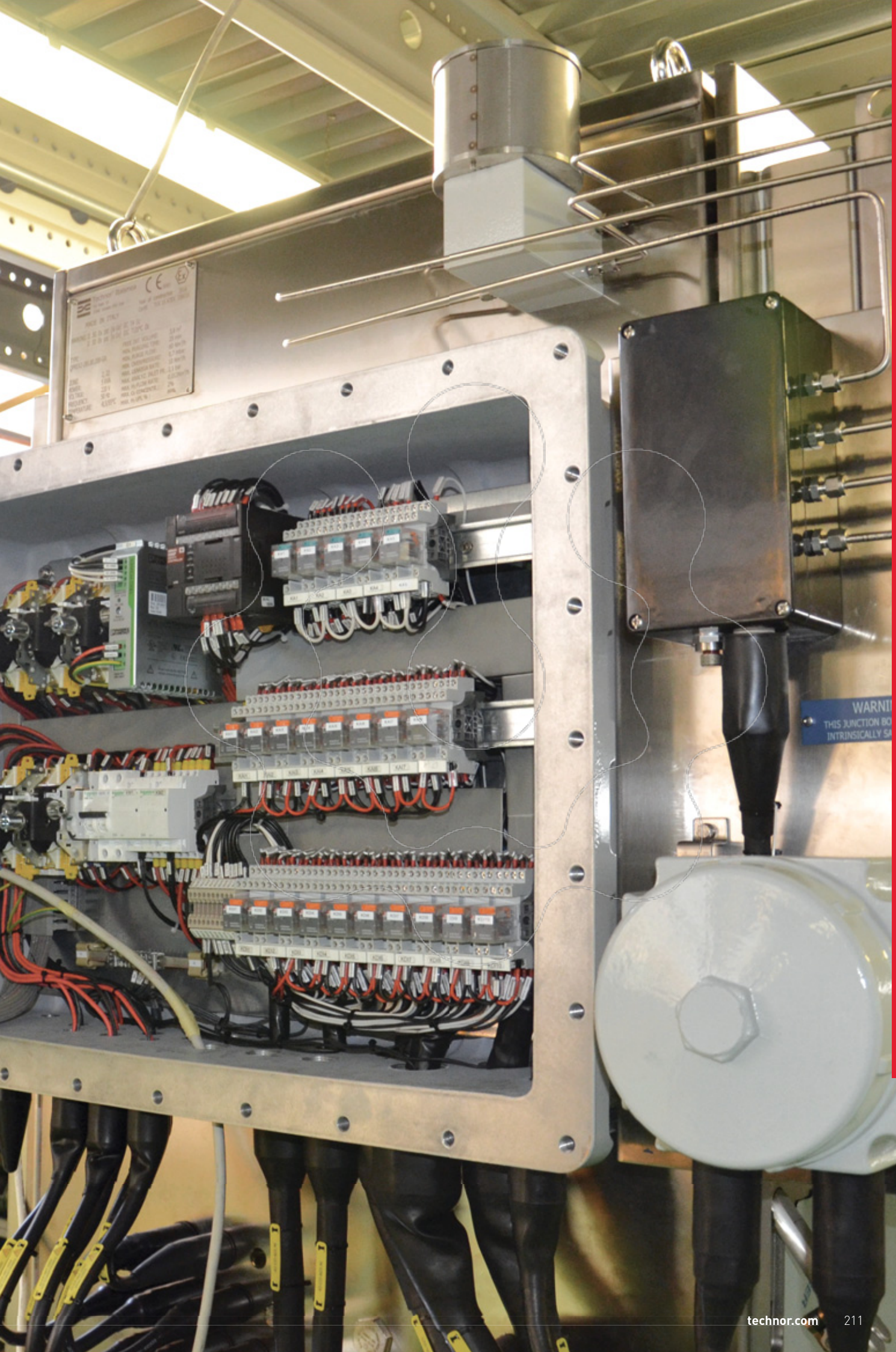
TECHNICAL FEATURES

Material Aluminium with low content of copper

Thread NPT, UNI-6125 (other thread upon request)

Aluminium bushings - DB

TYPE	CODE	SIZE	THREAD	WEIGHT [Kg]
DB-1	C010200006000	1/2"	ISO-228	0.012
DB-2	C010200007000	3/4"	ISO-228	0.014
DB-3	C010200008000	1"	ISO-228	0.020
DB-4	C010200009000	1" 1/4	ISO-228	0.025
DB-5	C010200010000	1" 1/2	ISO-228	0.032
DB-6	C010200011000	2"	ISO-228	0.046
DB-7	C010200012000	2" 1/2	ISO-228	0.062
DB-8	C010200013000	3"	ISO-228	0.071
DB-1	C010200026000	1/2"	NPT	0.012
DB-2	C010200027000	3/4"	NPT	0.014
DB-3	C010200028000	1"	NPT	0.020
DB-4	C010200029000	1" 1/4	NPT	0.025
DB-5	C010200030000	1" 1/2	NPT	0.032
DB-6	C010200031000	2"	NPT	0.046
DB-7	C010200032000	2" 1/2	NPT	0.062
DB-8	C010200033000	3"	NPT	0.071



FITTINGS

PLG Series - Recessed exagonal plugs

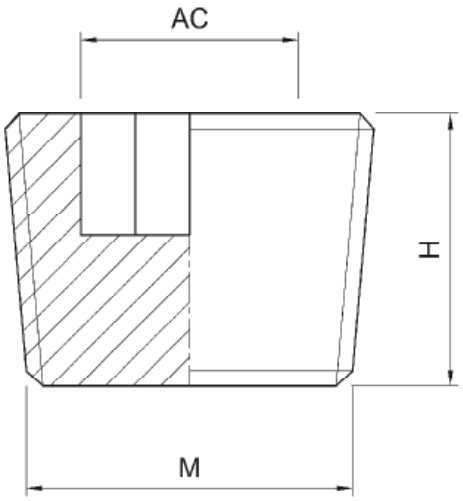


PLG series plugs are used to close the unused entries. They have an hexagonal head so that they can be opened with proper tools only.

TECHNICAL FEATURES

Material	Galvanized steel , Aluminium with low content of copper
IP rating	IP66/IP67
Ambient temperature range	-20°C +80°C - galvanized steel, with Silicone gasket -40°C +150°C - brass nk or aluminum, with Silicone gasket -50°C +150°C - stainless steel, with Silicone gasket
Approvals	CESI 02 ATEX 049 X IECEx CES 10.0001X TR CU
Marking	II 2GD Ex d IIC Gb/Ex e IIC Gb Ex tb IIIC Db IP66/67
Thread	NPT, UNI-6125 (other threads upon request)

Dimensions PLG



Recessed hexagonal plugs - PLG

TYPE	CODE	SIZE	THREAD	MATERIAL	DIMENSIONS [mm]		WEIGHT [Kg]
					AC	H	
PLG-1	B170123130020	1/2"	UNI-6125	GALV. STEEL	13	18	0.034
PLG-2	B170123230020	3/4"	UNI-6125	GALV. STEEL	17	18	0.054
PLG-3	B170123330020	1"	UNI-6125	GALV. STEEL	19	24	0.124
PLG-4	B170124430020	1" 1/4	UNI-6125	ALUMINIUM	24	24	0.061
PLG-5	B170124530020	1" 1/2	UNI-6125	ALUMINIUM	35	24	0.063
PLG-6	B170124630020	2"	UNI-6125	ALUMINIUM	36	24	0.109
PLG-7	B170124730020	2" 1/2	UNI-6125	ALUMINIUM	50	30	0.169
PLG-8	B170124830020	3"	UNI-6125	ALUMINIUM	50	30	0.242
PLG-1	B170123120020	1/2"	NPT	GALV. STEEL	13	18	0.034
PLG-2	B170123220020	3/4"	NPT	GALV. STEEL	17	18	0.054
PLG-3	B170123320020	1"	NPT	GALV. STEEL	19	24	0.124
PLG-4	B170124420020	1" 1/4	NPT	ALUMINIUM	24	24	0.061
PLG-5	B170124520020	1" 1/2	NPT	ALUMINIUM	35	24	0.063
PLG-6	B170124620020	2"	NPT	ALUMINIUM	36	24	0.109
PLG-7	B170124720020	2" 1/2	NPT	ALUMINIUM	50	30	0.169
PLG-8	B170124820020	3"	NPT	ALUMINIUM	50	30	0.242

FITTINGS

PLG Series - Resin exagonal plugs

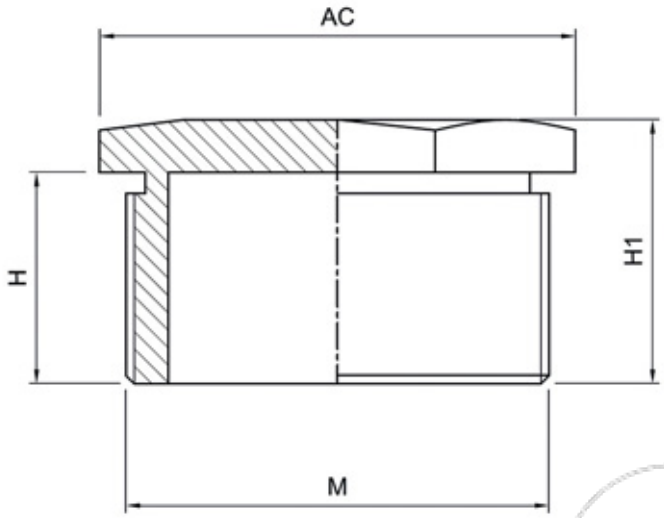


PLG series polyamide plugs are used to close the unused entries in case of Ex e/Ex i certified enclosures (for intrinsecally safe circuits, plugs can be supplied blue coloured).

TECHNICAL FEATURES

Material	Black polyamide
IP rating	IP66/IP68
Ambient temperature range	-20°C to +80°C
Approvals	CESI 03 ATEX 305X
Marking	II 2 GD Ex e II - Ex i II Ex tD A21 IP66/68
Thread	Metric pitch 1,5, PG
Accessories available upon request	Locknut, Gasket (for selection please refer to page 178)

Dimensions PLG



Hexagonal head plugs - PLG

TYPE	CODE	THREAD	DIMENSIONS [mm]		
			H	H1	AC
PLG-01IXE	B170210010030	M16X1,5	12	16	19
PLG-1IXE	B170210110030	M20X1,5	15	20	23
PLG-2IXE	B170210210030	M25X1,5	15	20	28
PLG-3IXE	B170210310030	M32X1,5	15	23	36
PLG-4IXE	B170210410030	M40X1,5	18	27	45
PLG-5IXE	B170210510030	M50X1,5	18	27	55
PLG-6IXE	B170210610030	M63X1,5	18	27	69
PLG-2PXE	B170211040030	PG9			
PLG-3PXE	B170211140030	PG11			
PLG-4PXE	B170210040030	PG13,5			
PLG-5PXE	B170210140030	PG16			
PLG-6PXE	B170210240030	PG21			
PLG-7PXE	B170210340030	PG29			
PLG-8PXE	B170210540030	PG36			

FITTINGS

T Series - Exagonal plugs

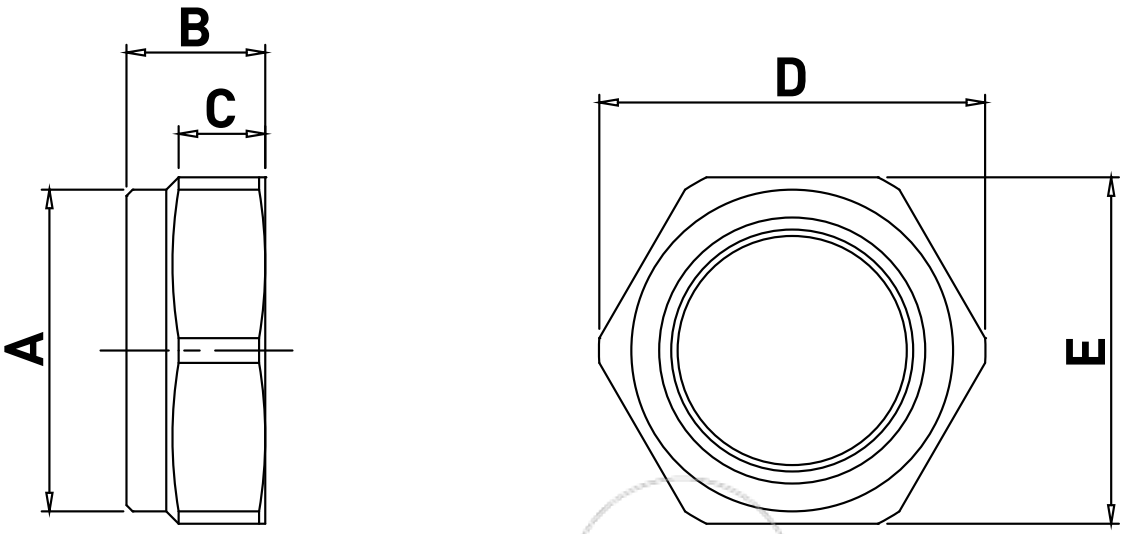


T.. series hexagonal plugs are used to close the unused entries, they have both Ex d and Ex e mode of protection.

TECHNICAL FEATURES

Material	Nickel chrome plated brass AISI 316 L Stainless steel (other materials upon request)
IP rating	IP66/IP68
Ambient temperature range	-40°C +100°C with EPDM or Nylon gaskets -65°C +220°C with Silicone gaskets -65°C +400°C without gaskets
Approvals	Certified 12ATEX 0089X IEC Ex INE 10.0014X TR CU
Marking	II 2GD Ex d/e IIC Gb Ex tb IIIC Db IP66/68 I M2 Ex d/e I Mb
Thread	Metric pitch 1,5, NPT, UNI-6125 (other threads upon request)
Accessories available upon request	Locknut, Gasket (for selection please refer to page 178)

Dimensions T.. Series



T.. Series Hexagonal head plugs

TYPE	CODE		SIZE	THREAD	DIMENSIONS [mm]				
	BRASS	AISI 316 L			A	B	C	D	E
T20	B170111110020	B170112110020	M20X1,5	METRIC	23	27	16	26	24
T25	B170111210020	B170112210020	M25X1,5	METRIC	29	27	16	33	30
T32	B170111310020	B170112310020	M32X1,5	METRIC	35	27	16	40	36
T40	B170111410020	B170112410020	M40X1,5	METRIC	45	30	18	51	46
T50	B170111510020	B170112510020	M50X1,5	METRIC	55	30	18	62	56
T63	B170111610020	B170112610020	M63X1,5	METRIC	69	31	18	77	70
T75	B170111710020	B170112710020	M75X1,5	METRIC	81	32	18	90	82
T80	B170111810020	B170112810020	M80X1,5	METRIC	86	32	18	96	87
T1	B170111130020	B170112130020	1/2"	UNI-6125	26	30	19	30	27
T2	B170111230020	B170112230020	3/4"	UNI-6125	31	30	19	35	32
T3	B170111330020	B170112330020	1"	UNI-6125	37	36	25	42	38
T4	B170111430020	B170112430020	1" 1/4	UNI-6125	47	37	25	53	48
T5	B170111530020	B170112530020	1" 1/2	UNI-6125	55	37	25	62	56
T6	B170111630020	B170112630020	2"	UNI-6125	66	38	25	74	67
T7	B170111730020	B170112730020	2" 1/2	UNI-6125	81	46	32	90	82
T8	B170111830020	B170112830020	3"	UNI-6125	95	46	32	106	96
T1N	B170111120020	B170112120020	1/2"	NPT	26	30	19	30	27
T2N	B170111220020	B170112220020	3/4"	NPT	31	30	19	35	32
T3N	B170111320020	B170112320020	1"	NPT	37	36	25	42	38
T4N	B170111420020	B170112420020	1" 1/4	NPT	47	37	25	53	48
T5N	B170111520020	B170112520020	1" 1/2	NPT	55	37	25	62	56
T6N	B170111620020	B170112620020	2"	NPT	66	38	25	74	67
T7N	B170111720020	B170112720020	2" 1/2	NPT	81	46	32	90	82
T8N	B170111820020	B170112820020	3"	NPT	95	46	36	106	96

FITTINGS
RE/REB Series - Reductions and adaptors

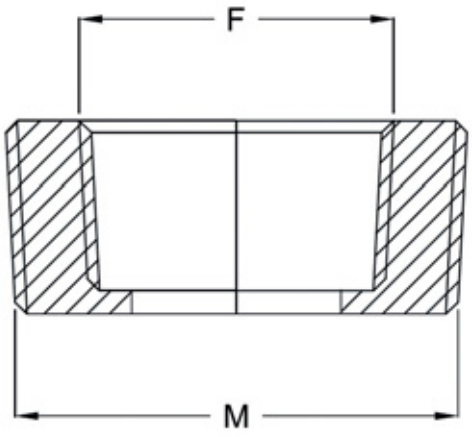


Reductions and adaptors are used to connect pipes of an electrical equipment and enclosures or different devices of an explosion-proof equipment with different entries sizes.

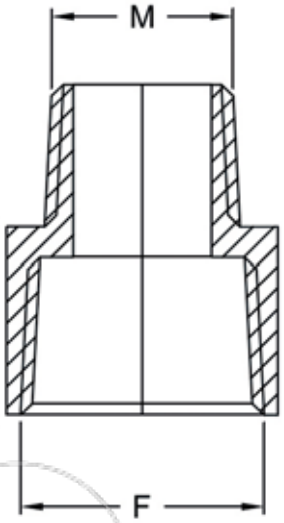
TECHNICAL FEATURES

Material	Galvanized steel, aluminium with low content of copper
IP rating	IP66/IP67
Ambient temperature range	-20°C +80°C - galvanized steel, with Silicone gasket -40°C +150°C - brass nk or aluminum, with Silicone gasket -50°C +150°C - stainless steel, with Silicone gasket
Approvals	CESI 02 ATEX 049 X IECEx CES 10.0001X TR CU
Marking	II 2GD Ex d IIC Gb/Ex e IIC Gb Ex tb IIIC Db IP66/67
Thread	NPT, UNI-6125 (other threads upon request)

Dimensions RE



Dimensions REB



Reductions RE

TYPE	CODE		MATERIAL	MALE M	FEMALE F	WEIGHT [Kg]
	UNI-6125	NPT				
RE-21	B171213213020	B171213212020	GALV. STEEL	3/4"	1/2"	0.038
RE-31	B171213313020	B171213312020	GALV. STEEL	1"	1/2"	0.089
RE-32	B171213323020	B171213322020	GALV. STEEL	1"	3/4"	0.058
RE-41	B171214413020	B171214412020	ALUMINIUM	1" 1/4	1/2"	0.064
RE-42	B171214423020	B171214422020	ALUMINIUM	1" 1/4	3/4"	0.053
RE-43	B171214433020	B171214432020	ALUMINIUM	1" 1/4	1"	0.034
RE-51	B171214513020	B171214512020	ALUMINIUM	1" 1/2	1/2"	0.092
RE-52	B171214523020	B171214522020	ALUMINIUM	1" 1/2	3/4"	0.079
RE-53	B171214533020	B171214532020	ALUMINIUM	1" 1/2	1"	0.061
RE-54	B171214543020	B171214542020	ALUMINIUM	1" 1/2	1" 1/4	0.029
RE-61	B171214613020	B171214612020	ALUMINIUM	2"	1/2"	0.153
RE-62	B171214623020	B171214622020	ALUMINIUM	2"	3/4"	0.148
RE-63	B171214633020	B171214632020	ALUMINIUM	2"	1"	0.124
RE-64	B171214643020	B171214642020	ALUMINIUM	2"	1" 1/4	0.095
RE-65	B171214653020	B171214652020	ALUMINIUM	2"	1" 1/2	0.068
RE-71	B171214713020	B171214712020	ALUMINIUM	2" 1/2	1/2"	0.244
RE-72	B171214723020	B171214722020	ALUMINIUM	2" 1/2	3/4"	0.243
RE-73	B171214733020	B171214732020	ALUMINIUM	2" 1/2	1"	0.272
RE-74	B171214743020	B171214742020	ALUMINIUM	2" 1/2	1" 1/4	0.238
RE-75	B171214753020	B171214752020	ALUMINIUM	2" 1/2	1" 1/2	0.198
RE-76	B171214763020	B171214762020	ALUMINIUM	2" 1/2	2"	0.136
RE-81	B171214813020	B171214812020	ALUMINIUM	3"	1/2"	0.416
RE-82	B171214823020	B171214822020	ALUMINIUM	3"	3/4"	0.355
RE-83	B171214833020	B171214832020	ALUMINIUM	3"	1"	0.323
RE-84	B171214843020	B171214842020	ALUMINIUM	3"	1" 1/4	0.302
RE-85	B171214853020	B171214852020	ALUMINIUM	3"	1" 1/2	0.318
RE-86	B171214863020	B171214862020	ALUMINIUM	3"	2"	0.249
RE-87	B171213873020	B171213872020	GALV. STEEL	3"	2" 1/2	0.578

Reductions RE

TYPE	CODE	THREAD	MATERIAL	MALE M	FEMALE F	WEIGHT [Kg]
RE-32	B1709.000038	NPT	GALV. STEEL	1"	3/4"	0.058
RE-41	B1709.000039	NPT	ALUMINIUM	1" 1/4	1/2"	0.064
RE-42	B1709.000040	NPT	ALUMINIUM	1" 1/4	3/4"	0.053
RE-43	B1709.000041	NPT	ALUMINIUM	1" 1/4	1"	0.034
RE-51	B1709.000042	NPT	ALUMINIUM	1" 1/2	1/2"	0.092
RE-52	B1709.000043	NPT	ALUMINIUM	1" 1/2	3/4"	0.079
RE-53	B1709.000044	NPT	ALUMINIUM	1" 1/2	1"	0.061
RE-54	B1709.000045	NPT	ALUMINIUM	1" 1/2	1" 1/4	0.029
RE-61	B1709.000046	NPT	ALUMINIUM	2"	1/2"	0.153
RE-62	B1709.000047	NPT	ALUMINIUM	2"	3/4"	0.148
RE-63	B1709.000048	NPT	ALUMINIUM	2"	1"	0.124
RE-64	B1709.000049	NPT	ALUMINIUM	2"	1" 1/4	0.095
RE-65	B1709.000050	NPT	ALUMINIUM	2"	1" 1/2	0.068
RE-73	B1709.000051	NPT	ALUMINIUM	2" 1/2	1"	0.272
RE-75	B1709.000052	NPT	ALUMINIUM	2" 1/2	1" 1/2	0.198
RE-76	B1709.000053	NPT	ALUMINIUM	2" 1/2	2"	0.136
RE-83	B1709.000054	NPT	ALUMINIUM	3"	1"	0.323
RE-85	B1709.000055	NPT	ALUMINIUM	3"	1" 1/2	0.318
RE-86	B1709.000056	NPT	ALUMINIUM	3"	2"	0.249
RE-87	B1709.000057	NPT	GALV. STEEL	3"	2" 1/2	0.578

Adaptors REB

TYPE	CODE		MATERIAL	MALE M	FEMALE F	WEIGHT [Kg]
	UNI-6125	NPT				
REB-21	B171223123020	B171223122020	GALV. STEEL	1/2"	3/4"	0.069
REB-31	B171223133020	B171223132020	GALV. STEEL	1/2"	1"	0.108
REB-32	B171223233020	B171223232020	GALV. STEEL	3/4"	1"	0.109
REB-41	B171223143020	B171223142020	ALUMINIUM	1/2"	1" 1/4	0.187
REB-42	B171223243020	B171223242020	ALUMINIUM	3/4"	1" 1/4	0.171
REB-43	B171223343020	B171223342020	ALUMINIUM	1"	1" 1/4	0.209
REB-51	B171223153020	B171223152020	ALUMINIUM	1/2"	1" 1/2	0.352
REB-52	B171223253020	B171223252020	ALUMINIUM	3/4"	1" 1/2	0.323
REB-53	B171223353020	B171223352020	ALUMINIUM	1"	1" 1/2	0.337
REB-54	B171223453020	B171223452020	ALUMINIUM	1" 1/4	1" 1/2	0.359
REB-61	B171223163020	B171223162020	ALUMINIUM	1/2"	2"	0.459
REB-62	B171223263020	B171223262020	ALUMINIUM	3/4"	2"	0.417
REB-63	B171223363020	B171223362020	ALUMINIUM	1"	2"	0.489
REB-64	B171223463020	B171223462020	ALUMINIUM	1" 1/4	2"	0.436
REB-65	B171223563020	B171223562020	ALUMINIUM	1" 1/2	2"	0.463
REB-71	B171223173020	B171223172020	ALUMINIUM	1/2"	2" 1/2	0.597
REB-72	B171223273020	B171223272020	ALUMINIUM	3/4"	2" 1/2	0.611
REB-73	B171223373020	B171223372020	ALUMINIUM	1"	2" 1/2	0.601
REB-74	B171223473020	B171223472020	ALUMINIUM	1" 1/4	2" 1/2	0.663
REB-75	B171223573020	B171223572020	ALUMINIUM	1" 1/2	2" 1/2	0.667
REB-76	B171223673020	B171223672020	ALUMINIUM	2"	2" 1/2	0.531
REB-81	B171223183020	B171223182020	ALUMINIUM	1/2"	3"	0.674
REB-82	B171223283020	B171223282020	ALUMINIUM	3/4"	3"	0.687
REB-83	B171223383020	B171223382020	ALUMINIUM	1"	3"	0.900
REB-84	B171223483020	B171223482020	ALUMINIUM	1" 1/4	3"	0.864
REB-85	B171223583020	B171223582020	ALUMINIUM	1" 1/2	3"	0.884
REB-86	B171223683020	B171223682020	ALUMINIUM	2"	3"	0.767
REB-87	B171223783020	B171223782020	GALV. STEEL	2" 1/2	3"	1.055

FITTINGS

A../F../M../R.. Series - Reductions and adaptors

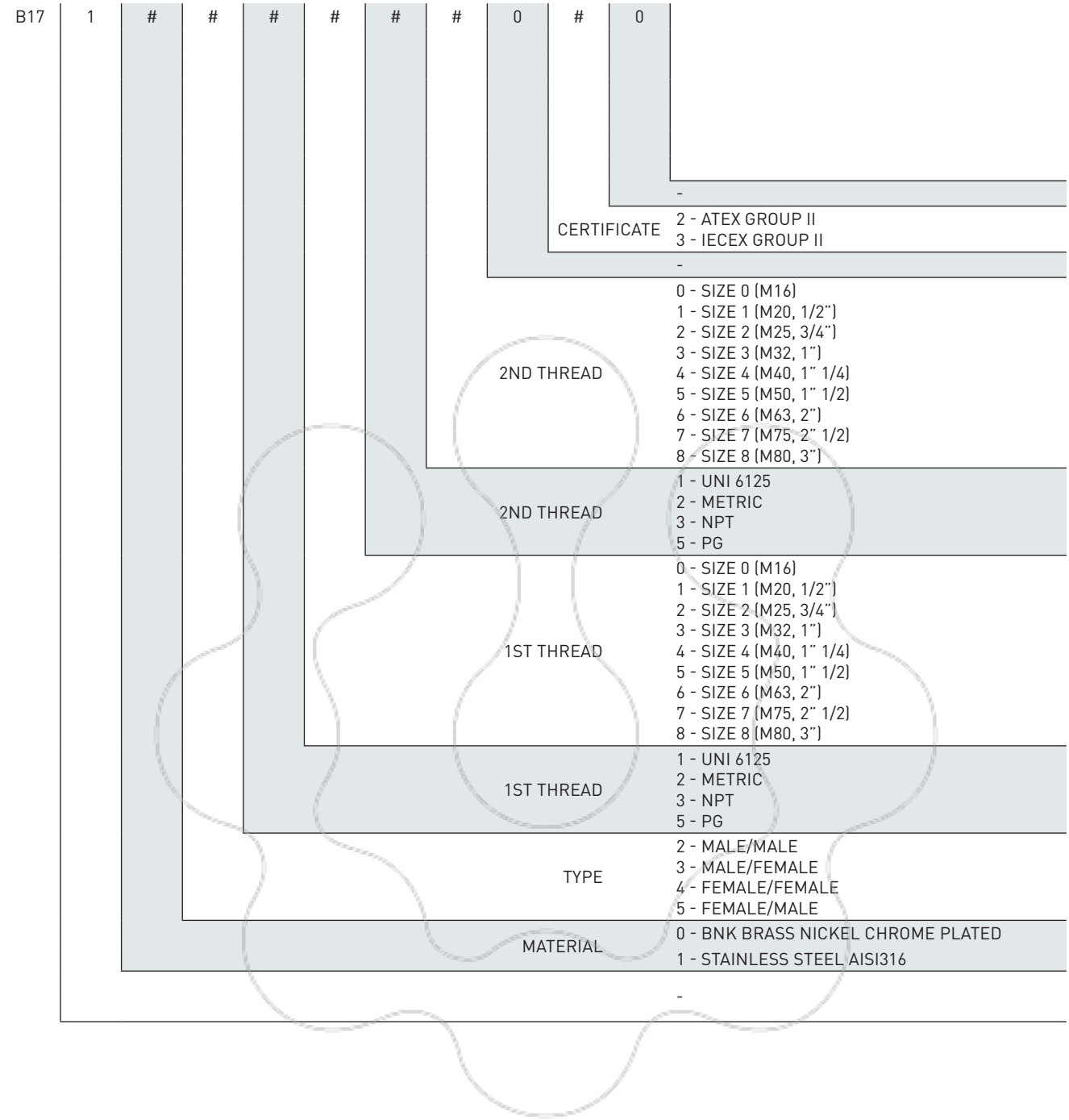


Reductions and adaptors are used to connect pipes of an electrical equipment and enclosures or different devices of an explosion-proof equipment with different entries sizes.

TECHNICAL FEATURES

Material	Nickel chrome plated brass AISI 316 L Stainless steel
IP rating	IP66/IP68
Ambient temperature range	-40°C +100°C with EPDM or Nylon gaskets -65°C +220°C with Silicone gaskets -65°C +400°C without gaskets
Approvals	Certified 12ATEX 0089X IEC Ex INE 10.0014X TR CU
Marking	II 2GD Ex d/e IIC Gb Ex tb IIIC Db IP66/68 I M2 Ex d/e I Mb
Thread	ISO METRIC pitch 1,5, NPT, UNI-6125 (other thread upon request)

Assembly diagram




DANGE
HAZARD
AREA
440-480V

PLUGS & SOCKET-OUTLETS



P.226

Plugs & socket-outlets

- FSX - Socket-outlet & welding receptacle - Stainless steel AISI 316 L 226
- FSAL - Socket-outlet & welding receptacle - Copper free aluminium 228
- MXBS - Socket outlet combination boxes 230
- FPR - Plugs - GRP 232

PLUGS & SOCKET-OUTLETS

FSX - Socket-outlet & welding receptacle - Stainless steel AISI 316 L



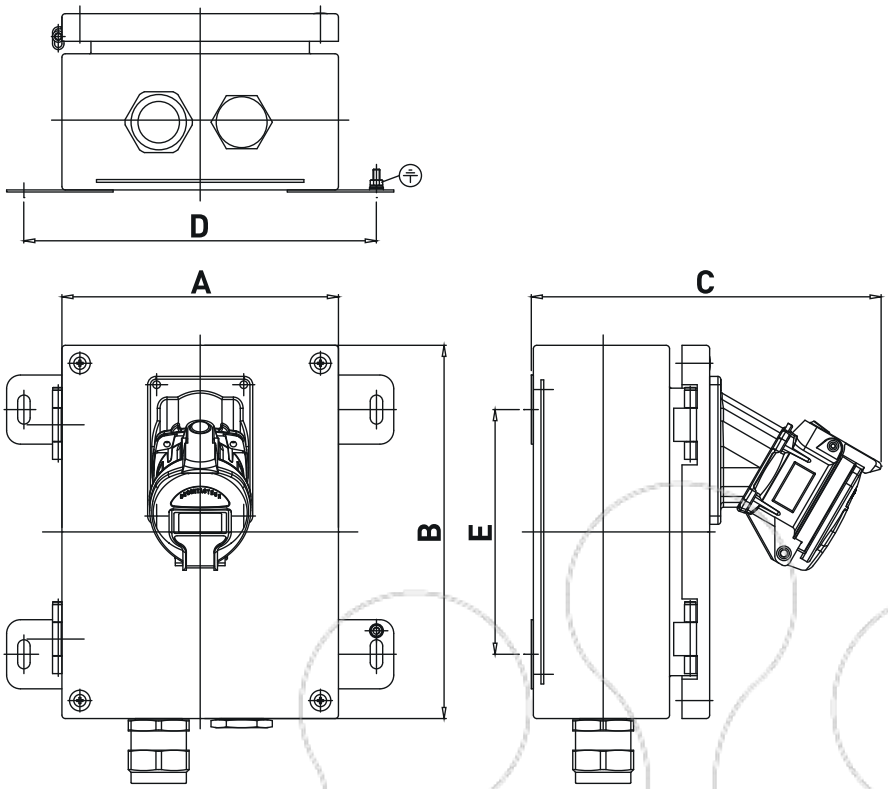
Stainless steel AISI 316 L housing and glass fiber reinforced polyester block contacts.

Thank to the design of block contact turning on suitable hinges, FS.. socket outlets & welding receptacles allow an easy wiring and maintenance.
When open, all space corresponding to surface O.D. of apparatus is available for wiring operation.
Also, by the twin terminal for each polarity, foreseen it is possible the loop of power cable, saving therefore the costs of one extra junction box, two cable glands and man power cost for wiring in between junction box and socket outlet.
Cross section of looping terminal strip allows use of cable size over the socket full load.

TECHNICAL FEATURES

Material	Enclosure: AISI 316 L Stainless steel Socket: GRP
IP rating	IP66
Ambient temperature range	-40°C to +60°C
Approvals	Certified 06ATEX0015 (standard) TR CU (marking upon request)
Marking	II 2 GD EEx ed IIC T(**) EEx tD A21 IP66 T(**) ** T6/T85°C, T5/T100°C
Frequency	50Hz
Connection terminals cross section flexible cores/rigid cores	For 20 A = 10/10 sqmm For 32 A = 16/16 sqmm For 63 A = 35/35 sqmm Smaller or bigger terminal sizes available on request.
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Standard accessories	N°1 AISI 316 L Stainless steel cable gland PNA type N°1 AISI 316 L Stainless steel plug
Accessories available upon request	Drain/breather valve Traffolyte/Stainless steel certificate label Plug

Dimensions FSX



Receptacles - FSX

TYPE	CODE	COLOUR CODE	VOLTAGE [V]	CONTACT ARRANGEMNT	CURRENT [A]	ENTRIES	DIMENSIONS ENCLOSURE [mm]				
							A	B	C	D	E
FSX-2-20-24-50	B040111125113		24	2P	20	2XM25	137	200	240	192	
FSX-3-20-110-50	B040111335113		110-130	1P+N+E	20	2XM25	137	200	240	192	
FSX-3-20-230-50	B040111435113		220-250	1P+N+E	20	2XM25	137	200	240	192	
FSX-4-20-400-50	B040121545113		380-440	3P+E	20	2XM25	200	270	240	255	177
FSX-5-20-400-50	B040121555113		380-440	3P+N+E	20	2XM25	200	270	240	255	177
FSX-2-32-24-50	B040122125113		24	2P	32	2XM32	200	270	255	255	177
FSX-3-32-110-50	B040122335113		110-130	1P+N+E	32	2XM32	200	270	255	255	177
FSX-3-32-230-50	B040122435113		220-250	1P+N+E	32	2XM32	200	270	255	255	177
FSX-4-32-400-50	B040122545113		380-440	3P+E	32	2XM32	200	270	255	255	177
FSX-5-32-400-50	B040122555113		380-440	3P+N+E	32	2XM32	200	270	255	255	177
FSX-2-63-24-50	B040133125113		24	2P	63	2XM50	270	350	265	325	257
FSX-3-63-110-50	B040133335113		110-130	1P+N+E	63	2XM50	270	350	265	325	257
FSX-3-63-230-50	B040133435113		220-250	1P+N+E	63	2XM50	270	350	265	325	257
FSX-4-63-400-50	B040133545113		380-440	3P+E	63	2XM50	270	350	265	325	257
FSX-5-63-400-50	B040133555113		380-440	3P+N+E	63	2XM50	270	350	265	325	257

* In case of maximum ambient temperature reach +40°C, temperature class changes into T6 (ordering code to be required)

FSAL - Socket-outlet & welding receptacle - Copper free aluminium



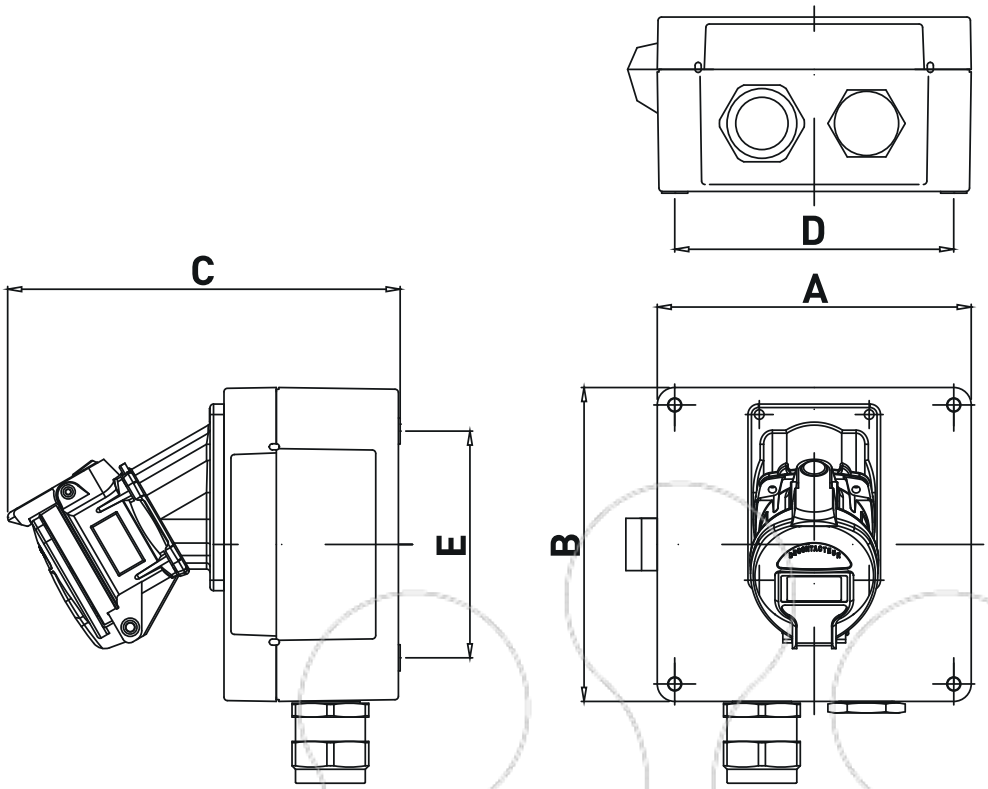
Aluminium with low content of copper housing and glass fiber reinforced polyester block contacts.

Thank to the design of block contact turning on suitable hinges, FS.. socket outlets & welding receptacles allow an easy wiring and maintenance.
When open, all space corresponding to surface O.D. of apparatus is available for wiring operation.
Also, by the twin terminal for each polarity, foreseen it is possible the loop of power cable, saving therefore the costs of one extra junction box, two cable glands and man power cost for wiring in between junction box and socket outlet.
Cross section of looping terminal strip allows use of cable size over the socket full load.

TECHNICAL FEATURES

Material	Enclosure: Aluminium with low content of copper Socket: GRP
IP rating	IP66
Ambient temperature range	-40°C to +60°C
Approvals	Certified 06ATEX0015 (standard) TR CU (marking upon request)
Marking	II 2 GD EEx ed IIC T(**) EEx tD A21 IP66 T(**) ** T6/T85°C, T5/T100°C
Frequency	50Hz
Connection terminals cross section flexible cores/rigid cores	For 20 A = 10/10 sqmm For 32 A = 16/16 sqmm For 63 A = 35/35 sqmm Smaller or bigger terminal sizes available on request.
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Standard accessories	N°1 Nickel chrome plated brass cable gland PNA type N°1 Nickel chrome plated brass plug
Accessories available upon request	Drain/breather valve Traffolyte/Stainless steel certificate label Plug

Dimensions FSAL



Receptacles - FSAL

TYPE	CODE	COLOUR CODE	VOLTAGE [V]	CONTACT ARRANGEMNT	CURRENT [A]	ENTRIES	DIMENSIONS ENCLOSURE [mm]				
							A	B	C	D	E
FSAL-2-20-24-50	B040211125113		24	2P	20	2XM25	122	120	200	106	82
FSAL-3-20-110-50	B040211335113		110-130	1P+N+E	20	2XM25	122	120	200	106	82
FSAL-3-20-230-50	B040211435113		220-250	1P+N+E	20	2XM25	122	120	200	106	82
FSAL-4-20-400-50	B040221545113		380-440	3P+E	20	2XM25	160	160	200	140	110
FSAL-5-20-400-50	B040221555113		380-440	3P+N+E	20	2XM25	160	160	200	140	110
FSAL-2-32-24-50	B040232125113		24	2P	32	2XM32	180	180	230	160	130
FSAL-3-32-110-50	B040232335113		110-130	1P+N+E	32	2XM32	180	180	230	160	130
FSAL-3-32-230-50	B040232435113		220-250	1P+N+E	32	2XM32	180	180	230	160	130
FSAL-4-32-400-50	B040242545113		380-440	3P+E	32	2XM32	202	232	240	180	180
FSAL-5-32-400-50	B040242555113		380-440	3P+N+E	32	2XM32	202	232	240	180	180
FSAL-2-63-24-50	B040243125113		24	2P	63	2XM50	202	232	250	180	180
FSAL-3-63-110-50	B040243335113		110-130	1P+N+E	63	2XM50	202	232	250	180	180
FSAL-3-63-230-50	B040243435113		220-250	1P+N+E	63	2XM50	202	232	250	180	180
FSAL-4-63-400-50	B040253545113		380-440	3P+E	63	2XM50	313	404	250	262	383
FSAL-5-63-400-50	B040253555113		380-440	3P+N+E	63	2XM50	313	404	250	262	383

* In case of maximum ambient temperature reach +40°C, temperature class changes into T6 (ordering code to be required)

PLUGS & SOCKET-OUTLETS

MXBS - Socket outlet combination boxes



These socket outlet combination boxes, available in different materials and sizes, are designed for making electrical connections in hazardous areas.
They can be equipped with 5 to 680A Marechal decontactors and/or 10 A Marechal multicontact connectors, offering from 12 to 37 contacts.
They provide increased and intrinsic safety, allowing them to be used in zones 1 & 2 (gas), 21 & 22 (dust).

This comprehensive range is perfect for wet and corrosive environments, such as food and beverage or chemical industries, thanks to its specific and high quality materials. It is possible to mount both socket-outlets and multicontact connectors on the same box: DXN1, DXN3, DXN6, PXN12C, DXN25C, DXN37C, SPeX, DXA1 and PNCX.

TECHNICAL FEATURES

Material	Enclosure: Stainless steel AISI316L, GRP or Aluminium Socket: GRP and/or Aluminium
IP rating	IP66
Ambient temperature range	-55°C to +60°C
Approvals	LCIE 17 ATEX 3005 X (Standard) IECEx LCIE 17.0003X (marking upon request) TR CU (available for certificate INERIS 06 ATEX 0015)
Marking	II 2 GD Ex eb IIC T(**) Gb or Ex ia or ib IIC T(**) Gb or Ex eb ia or eb ib IIC T(**) Gb Ex tb IIIC T(**) Db IP66 ** T6/T80°C, T5/T95°C, T4/T105°C, T127°C, T130°C
Frequency	50 and/or 60Hz in AC
Electrical parameters	Ex eb: Umax=1000V AC/DC; Imax=376A* (wiring with terminals); Imax=680A* (direct wiring) Ex ia/Ex ib: Ui<=≤<750V; Ii<=400A* Ex eb ia/Ex eb ib: Ui<=750V; Um<=750V; Ii<=400A* * The electrical parameters must be reduced, if relevant, according to the limitations of certified equipments used.
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Accessories available upon request	Drain/breather valve Traffolyte/Stainless steel certificate label Cable glands Terminals Plug



PLUGS & SOCKET-OUTLETS

FPR - Plugs - GRP



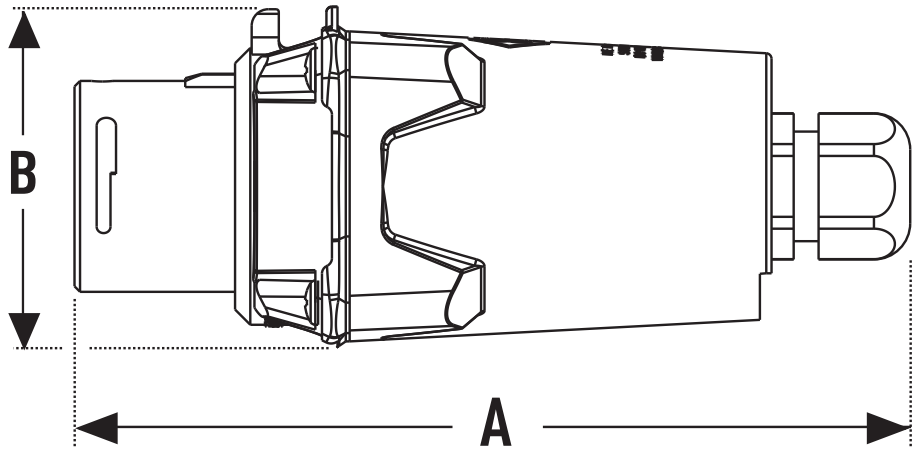
Plugs based on DXN technology, compatible with socket outlet & welding receptacles series: FSR, FSX, FSAL.

Made of self-extinguishing non-static glass reinforced polyester (PBT), DXN DECONTACTOR™ can withstand heavy duty, severe mechanical stress and presence chemical aggressive products .

TECHNICAL FEATURES

Material	GRP
IP rating	IP66
Ambient temperature range	-40°C to +60°C
Approvals	Certified 06ATEX0015 (standard) TR CU (marking upon request)
Marking	II 2 GD EEx ed IIC T(**) EEx tD A21 IP66 T(**) ** T6/T85°C, T5/T100°C
Frequency	50Hz
Connection terminals cross section flexible cores/rigid cores	For 20 A = 4/6 sqmm For 32 A = 10/16 sqmm For 63 A = 16/25 sqmm
Standard certificate label	Made by self adhesive UV and corrosion resistant polyester, approved by certified Laboratory.
Standard accessories	N°1 polyamide cable gland for unarmoured cable
Accessories available upon request	Metallic cable gland

Dimensions FPR



Plugs FPR

TYPE	CODE	COLOUR CODE	VOLTAGE [V]	CONTACT ARRANGEMNT	CURRENT [A]	CABLE GLAND	DIMENSIONS [mm]	
							A	B
FPR 2-20-24-50	B040401125113		24	2P	20	M20 (8÷13)	127	51
	B040401125123					M25 (13÷19)		
FPR 3-20-110-50	B040401335113		110-130	1P+N+E	20	M20 (8÷13)	127	51
	B040401335123					M25 (13÷19)		
FPR 3-20-230-50	B040401435113		220-250	1P+N+E	20	M20 (8÷13)	127	51
	B040401435123					M25 (13÷19)		
FPR 4-20-400-50	B040401545113		380-440	3P+E	20	M20 (8÷13)	127	51
	B040401545123					M25 (13÷19)		
FPR 5-20-400-50	B040401555113		380-440	3P+N+E	20	M20 (8÷13)	127	51
	B040401555123					M25 (13÷19)		
FPR 2-32-24-50	B040402125113		24	2P	32	M20 (8÷13)	128	68
	B040402125123					M25 (13÷19)		
	B040402125133					M32 (17÷25)		
FPR 3-32-110-50	B040402335113		110-130	1P+N+E	32	M20 (8÷13)	128	68
	B040402335123					M25 (13÷19)		
	B040402335133					M32 (17÷25)		
FPR 3-32-230-50	B040402435113		220-250	1P+N+E	32	M20 (8÷13)	128	68
	B040402435123					M25 (13÷19)		
	B040402435133					M32 (17÷25)		
FPR 4-32-400-50	B040402545113		380-440	3P+E	32	M20 (8÷13)	128	68
	B040402545123					M25 (13÷19)		
	B040402545133					M32 (17÷25)		
FPR 5-32-400-50	B040402555113		380-440	3P+N+E	32	M20 (8÷13)	128	68
	B040402555123					M25 (13÷19)		
	B040402555133					M32 (17÷25)		
FPR 2-63-24-50	B040403125123		24	2P	63	M25 (13÷19)	149	83
	B040403125133					M32 (17÷25)		
	B040403125143					M40 (24÷32)		
FPR 3-63-110-50	B040403335123		110-130	1P+N+E	63	M25 (13÷19)	149	83
	B040403335133					M32 (17÷25)		
	B040403335143					M40 (24÷32)		
FPR 3-63-230-50	B040403435123		220-250	1P+N+E	63	M25 (13÷19)	149	83
	B040403435133					M32 (17÷25)		
	B040403435143					M40 (24÷32)		
FPR 4-63-400-50	B040403545123		380-440	3P+E	63	M25 (13÷19)	149	83
	B040403545133					M32 (17÷25)		
	B040403545143					M40 (24÷32)		
FPR 5-63-400-50	B040403555123		380-440	3P+N+E	63	M25 (13÷19)	149	83
	B040403555133					M32 (17÷25)		
	B040403555143					M40 (24÷32)		


Fire point
Highly flammable
No smoking
No naked lights
FLAMBANK
Caution
Danger
GUN

MARECHAL ELECTRIC PRODUCTS



P.236

Explosion-proof products

- DXN/DX/PNCX/MULTICONTACTS/SPeX 236

P.238

Industrial products

- Industrial power supply/Signal & control/High current/High Temperature/Self-ejecting systems/Boxes 238

EXPLOSION-PROOF PRODUCTS

DXN/DX/PNCX/MULTICONTACTS/SPeX

The plugs and sockets as well as socket-outlet boxes and junction boxes in this range are meant for use in hazardous areas in compliance with the ATEX 2014/34/EU Directive and as per the IECEx in zones 1 and 2 (Gas) and zones 21 and 22 (Dust).

TECHNICAL FEATURES



DXN

DECONTACTOR™ - 20 A/32 A/63 A
II2 G D Ex de IIC Gb

- IP66/IP67 water- and dust-tight
- Integrated load-break switch
- Robust and compact design
- High performance poly casing
- Self-ejecting version available





DX

DECONTACTOR™ - 20 A/32 A/63 A/125 A/200 A
II2 G D Ex de IIC Gb

- IP65 water- and dust-tight
- Integrated load-break switch
- Locking in on/off positions by keying axis





PXN12C/DXN25C/ DXN37C

MULTICONTACTS CONNECTORS - 10 A
II2 G D Ex e IIC

- From 12 to 37 contacts
- Locking in connected or disconnected position
- Corrosion-free metal casing





SPeX

SINGLE POLE POWER CONNECTOR 680 A
II2 G D Ex e IIC

- IP65/IP66 water- and dust-tight
- Electromechanical interlocking system
- Mechanic and visual keying
- High performance poly casing





DXA1

DECONTACTOR™ MÉTAL
Up to 20 A
II2 G D Ex de IIC, Ex tb IIIC

- Integrated load-break switch
- IP66/67 water and dust tight
- Corrosion-free metal casing
- Lockable in connected or disconnected position with optional lockout shaft
- Low temperature rating of -55°C





PNCX

COMPACT CONNECTOR - 5 A
II2 G D Ex e IIC, Ex tb IIIC

- Can be used in zones 1 and 2 (gas), 21 and 22 (dust)
- Compact and easy to use
- Standard IP66/IP67
- Long life, 2000 operations



INDUSTRIAL PRODUCTS

Industrial power supply/Signal & control/ High current/High Temperature/Self-ejecting systems/Boxes

This extensive and comprehensive product range covers all industrial applications. With sizes varying from 5 A to 700 A, it offers a wide range of options.

TECHNICAL FEATURES



INDUSTRIAL POWER SUPPLY

DECONTACTOR™ & CONNECTORS
16 A to 250 A
The DSN, DS and DN DECONTACTOR™ ranges cover applications from 20 A to 250 A making them the most versatile for industry. PNC and PN are compact 16 A and 30 A connectors design for all type of environment (humidity, corrosion, pollution ...) found in many industrial sectors. DB disconnectable motor switches combine the function of an AC-3 motor switch with the convenience of a plug and socket.





SIGNAL & CONTROL

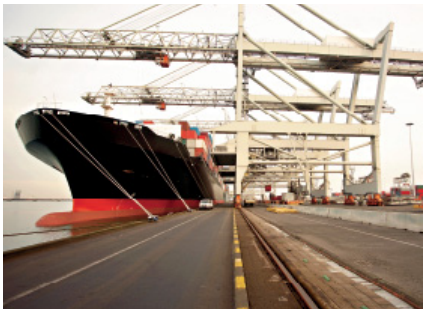
MULTICONTACT CONNECTORS
5 to 37 contacts - 5 A to 30 A
Low currents: 4 mA to 20 mA, 16 A
Our multicontact connectors Can hook up equipment to a power supply and transmit data. The silver-nickel alloy used for the butt contacts provides exceptional conductivity and longevity (can withstand several thousands of operations). The casing is available in GRP or metal to ensure excellent resistance – even in harsh conditions. And because the contacts are crimped, the connectors can be mounted and demounted quickly and easily.





HIGH CURRENT

PLUGS & SOCKETS AND CONNECTORS
Up to 700 A - 1 000 V
MARECHAL® high-current plugs offer a reliable solution for connections even under the harshest environments.





HIGH TEMPERATURE

DECONTACTOR™ & CONNECTORS
25 A to 90 A
This range of power connectors and signal & control connectors, provides excellent connection quality in high-temperature environments, up to 400 °C.





SELF-EJECTING

DECONTACTOR™ & RETTBOX®/ RETTBOX®-AIR
Mechanical ejection up to 150 A
Electromechanical ejection boxes up to 32 A - 13 bars
Self-ejecting systems avoid the need to disconnect electrical equipment, allowing a mobile device to be moved without unplugging it, or where equipment is located in high-risk areas.



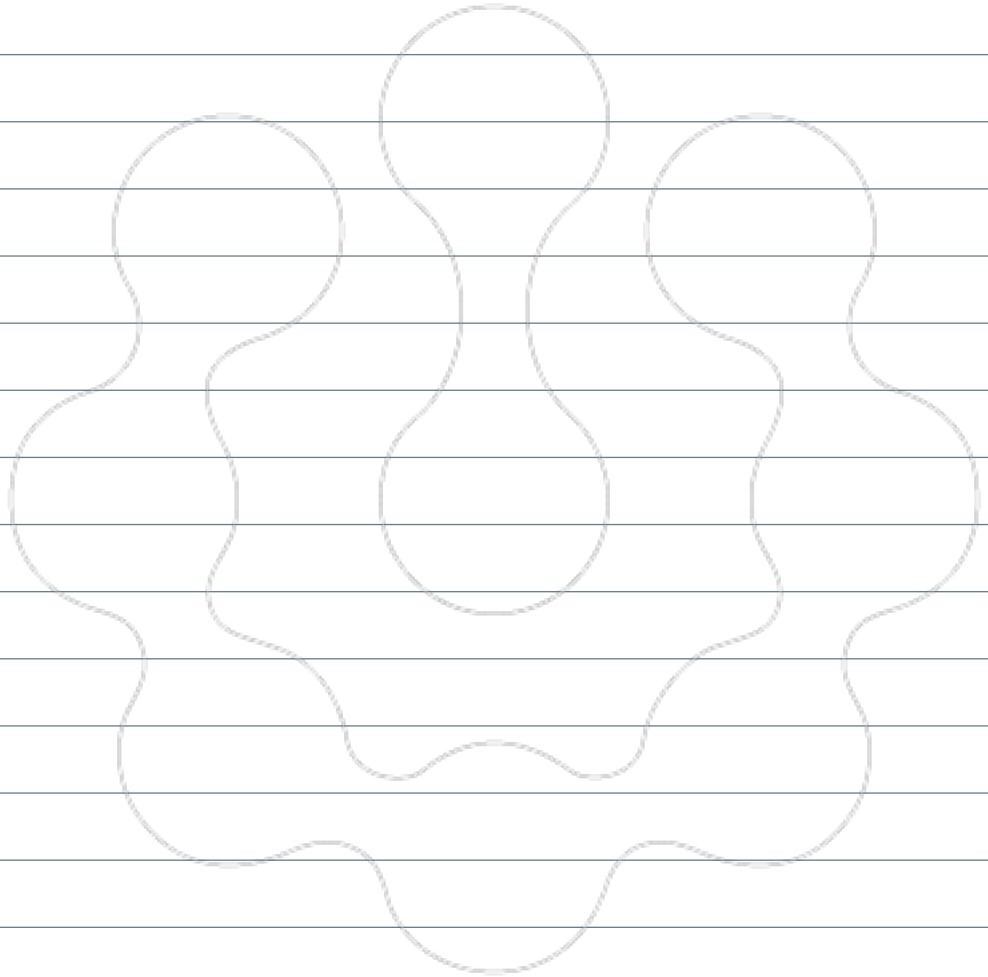


BOXES

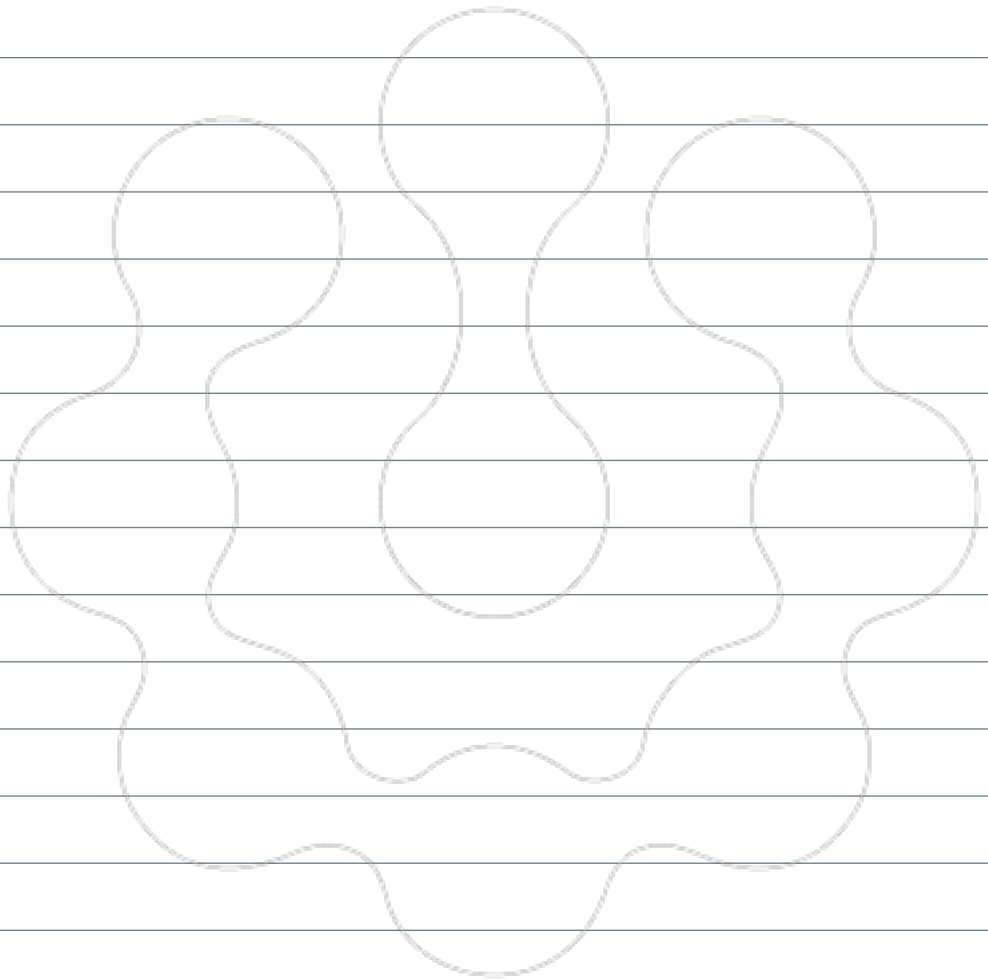
SOCKET-OUTLETS WITH PROTECTION UP TO 63 A
TUNNEL APPLICATIONS BOXES
MARECHAL® offers a wide range of boxes for all industrial applications and a large choice of products designed specifically for power-supply in tunnels.



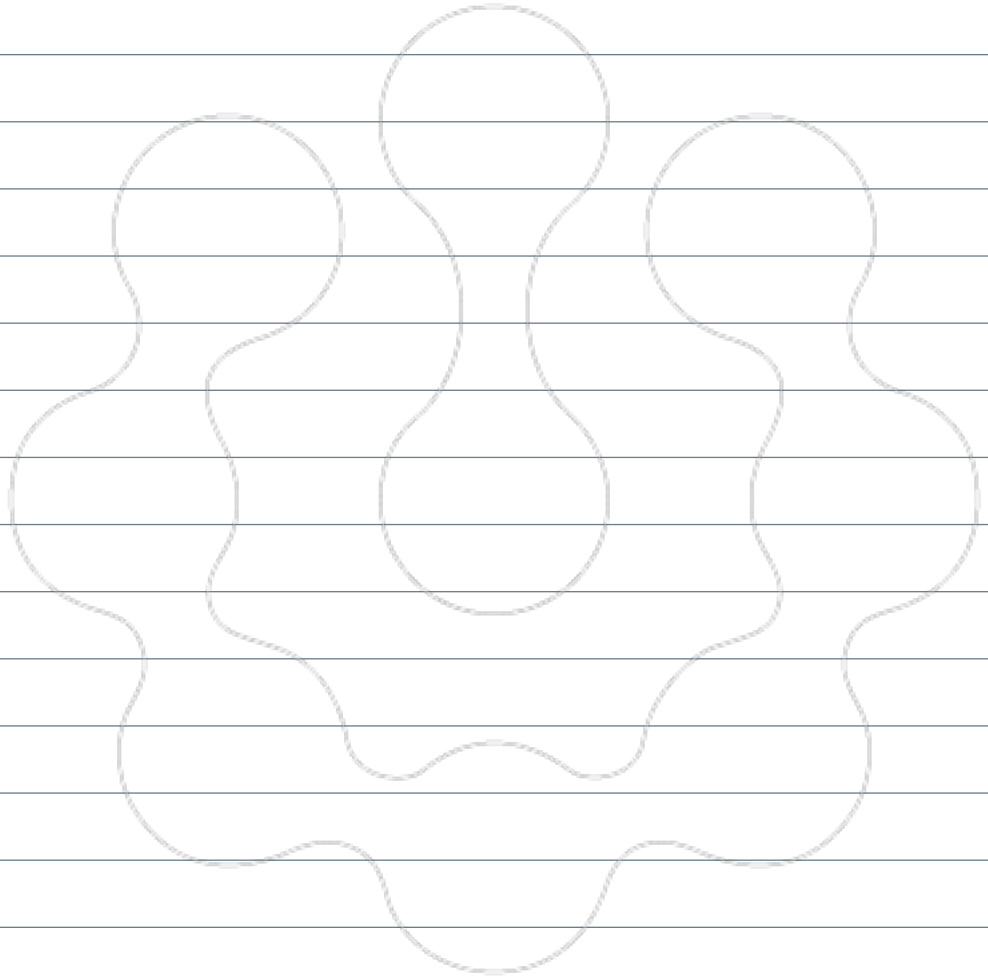
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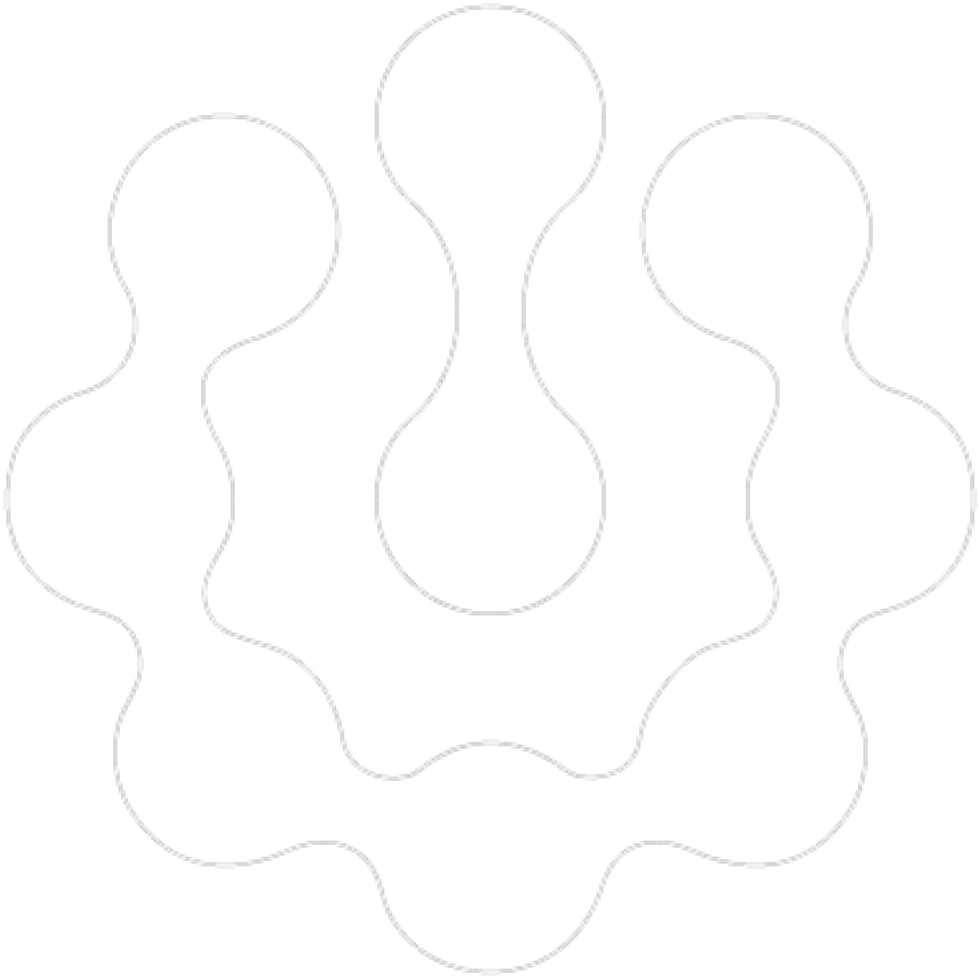


NOTE



NOTE





NON CONTRACTUAL DOCUMENT AND PICTURES

All the indications appearing in this catalogue are indicative and could not constitute a commitment on our part.
we reserve the right to alter specifications of our products without any prior notice in our efforts to continuously improve our products features.
For your information, the most updated version is the one of our website **technor.com**.

WORLD PRESENCE



MARECHAL ELECTRIC S.A.S (Head Office)
5, avenue de Presles
94417 Saint-Maurice Cedex, FRANCE
Phone : +33 (0)1 45 11 60 00
Fax : +33 (0)1 45 11 60 60
e-mail: contact@marechal.com

Africa SADC area
MARECHAL ELECTRIC AFRICA (PTY) LTD.
PO Box 13875 Witfield 1467
Unit A1 Harvard Lane
Aero Star Business Park
Jet Park Road, Jet Park
South Africa
Tel.: +27 11 894 7226/7/8
Fax: 086 604 1778
e-mail: sales.za@marechal.com

Australia
MARECHAL AUSTRALIA PTY LTD
20 Technology Circuit
HALLAM VIC 3803
Australia
Tél. : +61 (0)3 8786 2500
Fax : +61 (0)3 8786 2511
e-mail : sales@marechal.com.au

Germany/Austria/Switzerland/ East Europe/Russia
MARECHAL GmbH
Im Lossenfeld 8
D-77731 Willstätt-Sand
Germany
Tel.: +49 (0)7852/91 96-0
Fax: +49 (0)7852/91 96-19
e-mail: info.de@marechal.com

USA/Canada/Mexico
MELTRIC Corporation
4765 W. Oakwood Park Drive
Franklin WI 53132, USA
Tel.: +1 414 433 2700
Fax: +1 414 433 2701
e-mail: mail@meltric.com

Asia
MARECHAL ELECTRIC Asia Pte Ltd
9 Tagore Lane
#01-05 9@Tagore
Singapore 787472
Tel. : +65 6554 2722
Fax : +65 6455 9077
e-mail: sales.asia@marechal.com

China
MARECHAL ELECTRIC (CHINA) Co., Ltd
11 North Xiangshui Road,
West Dayawan District,
Huizhou.P.R.C
Tel/Fax: +86 (0)752-5319536
e-mail: sales.cn@marechal.com

Middle East
Technor Middle East DMCC
Unit No.2101, Fortune Executive Tower, Plot No T1
Jumeirah Lakes Towers
P.O. Box 392054
Dubai, United Arab Emirates
Tel. : +971 4 362 1418
Fax : +971 4 362 1419
e-mail: sales.me@marechal.com

TECHNOR
TECHNOR ITALSMEA S.p.A.
Via Italia 33,
20060 Gessate (MILANO)
Italia
Tél. : +39 02 95 00 151
Fax : +39 02 95 00 15 27
e-mail: sales@italsmea.com

For any other country or area, please contact head office.

marechal.com technor.com

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MARECHAL® MELTRIC® RETTBOX® TECHNOR®