DTS

KOPEX-Ex

Product Catalogue

Lighting, Boxes, Cabinets, Conduits, Fittings & Accessories for Hazardous and Hostile Areas

Ex IEC Ex

Thomas&Betts
A Member of the ABB Group

Welcome to Thomas & Betts

At Thomas & Betts, our focus is on improving your business performance by providing practical, reliable electrical products & services. To connect & protect for life. To solve everyday problems in the area's of Wire & Cable Management, Cable Protection, Power Connection & Control and Safety. Our extensive engineering, supply chain management and technical sales support teams are committed to understanding everything that impacts your ability to accomplish your business objectives by reducing your total cost of ownership.

Whether you are designing, installing, operating, maintaining or owning an office building, off-shore platform, hospital, or a high speed train, power generating plant, machine equipment or a manufacturing facility, Thomas & Betts engineered products fit and function in your application while providing superior performance, sustainability, and value throughout the project life cycle.

All our brands are built upon four product & service solution platforms. Platforms that address you or your customers' critical electrical & lighting needs covering the protection of data, energy, processes, assets and personal safety. Beyond hi-performance application characteristics, Thomas & Betts products, information and services facilitate and speed up your time critical assembly, installation or maintenance process.

Thomas & Betts in Europe:


Van Lien


KAUFEL


Adaptaflex


furse


ETS


Ty-Rap

Contents

Oil & Gas - Upstream Applications

Industry Overview

The oil and gas market is split into three sectors Upstream, Midstream and Downstream. Upstream consists of Exploration and production both these areas offer very distinct and unique challenges to people and equipment working within them.

Firstly there are offshore applications such as the drilling rigs and production platforms; these are always open to extreme weather conditions so equipment used here needs to be able to withstand a salty environment. This is achieved through either manufacturing product from stainless steel as is the case for the Kopex-Ex conduit glands, and DTS enclosures, or by ensuring that the product is coated or painted to withstand marine environments as in the DTS XFF fluorescent lighting.

Equipment in offshore applications also needs to be hardwearing and easy to maintain as production downtime can be extremely costly for example FPSO (Floating Production Storage and Offloading) vessel can produce up to 200,000 barrels of crude oil per day at approx $80 to $90 per barrel. A breakdown would result in the vessel producing a loss of revenue of over $700,000 per hour.

Approvals / Characteristics

Ex IEC Ex

ZONE 1 ZONE 2 ZONE 21 ZONE 22

IP66

Product Selection

- **Salt water corrosion (offshore platforms)**
- **Oil and chemical resistance (Drilling rig MUD)**
- **Extreme ambient temperature**
- **Protection level**
- **Connectivity to other pieces of equipment**
- **Consequence of down time**
- **Approval level required (Ex e, Ex d, etc.)**
- **Approval specification required ATEX, IECEx, UL, GOST, etc.**
- **Where product will be positioned, e.g. Zone 1 or Zone 2**

Oil & Gas - Upstream Applications

This has led to Kopex-Ex conduit systems being used in many offshore applications to protect critical data and power cables across these massive vessels, whether it is data cables from a gas detector or the cable protection on a power transmission unit, Kopex-Ex offers a whole range of products that are tested and approved to many of the world standards.

DTS lighting on the other hand offers easy maintenance with removable gear trays allowing the maintenance to be carried out quickly and safely. In fact on the XFF Exd luminaries the components such as ballasts and tubes are standard so the stocking and sourcing of spare parts is made easy. Again essential to an offshore vessel.

Onshore applications can also be split into exploration and production. However onshore is more economically viable than offshore with some wells only producing as few as a dozen barrels of oil a day. However, they can become extremely large with wells being networked together to produce up to a million barrels of oil a day.

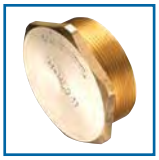
This brings with it a whole new series of challenges to be overcome. Firstly the drilling rigs tend to be mobile with motors and pumps often mounted on skids for easy transportation. This can lead to issues of connectivity for which Kopex-Ex have a range of thread converters in a variety of materials and approvals ready to resolve the problem.

Secondly with so many rigs in network there is a massive monitoring operation to be done to ensure that the flow of all the rigs is ongoing and consistent. This is where the DTS range of instrumentation boxes can offer great flexibility as they can be custom made to meet exact specifications.

The need to maintain flow also leads to the need for motors and controls on the well heads themselves often referred to as "Christmas Trees." These are under high pressure and must be able to withstand up to 1400 bar this is a critical area and has to be monitored closely to ensure that pressure do not fluctuate this is done by the valves within the wellhead controlled by motors. DTS EJB enclosures can be custom built to control these valves and at the same time monitor the pressures and relay it back to the central control point.

Related Products


EXL Conduit 154


Stopping Plugs 176


EJB Range 132


XFF Range 28

Oil & Gas - Midstream Applications

Industry Overview

Midstream relates to the transportation, storage and partial processing of crude oil and gas from the wellheads to the refining plants. This brings a different set of challenges to overcome.

This all relates to the fact that what is pumped out of the well is not pure and often contains a mixture of oil, gas, water and often sand which firstly need to be separated off from each other before being shipped or piped to a storage facility.

This can be done in a variety of ways depending on the type of oil or gas that the well is pumping and can often take up to 4 processes before the commodity is separated out ready for piping or shipping. These processes require energy and this energy is often created from the commodity itself by the utilization of the gas.

Once the separating has been completed, the commodity can then be moved to storage. In the case of an offshore rig this separating is often done on shore away from the rig then pumped to the storage depots. In the case of the FPSO vessels it is all done on board and the oil transferred to tankers at sea for delivery to storage depots.

Approvals / Characteristics

Ex IEC Ex

ZONE 1 ZONE 2 ZONE 21 ZONE 22

IP66

Product Selection

- **Salt water corrosion (Tankers)**
- **Extreme ambient temperature**
- **Protection level**
- **Consequence of down time**
- **Approval level required (Ex e, Ex d, etc.)**
- **Approval specification required ATEX, IECEx, UL, GOST etc**
- **Where product will be positioned, e.g. Zone 1 or Zone 2**

Oil & Gas - Midstream Applications

This is also the point when all metering needs to take place to calculate invoices and taxes today. This is done very accurately measuring not only the amount of oil produced but also the density, viscosity, pressure and temperature, and in the case of gas, the amount of water vapour.

Oil is often pumped direct to the oil refinery which is where the down stream operation starts but often needs to go through a series of pumps to get the required pressure.

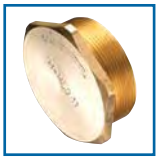
With DTS and the Kopex-Ex range of products, Thomas & Betts can offer a range of products and services to meet the demands of midstream oil and gas markets. The DTS range of lighting products is manufactured to meet ATEX and IECEx standards. Designed to be robust to meet the vigors of the environment whether it is on oil tankers where the XFF product is ideal. To storage depots where the EVS range of fluorescents is often preferred. Added to this all the fluorescent lighting has been designed with the installer and maintenance people in mind with removable gear trays for easy and safe installation and maintenance.

DTS also offers a wide range of standard and custom made instrumentation boxes often used in the monitoring equipment to relay signals from the sensors back to the central control systems. As well as a range of standard configuration for control boxes including "Emergency Stop" and "On - Off" to control motors etc. All of these are available in GRP, aluminum and Stainless steel 316 therefore meeting any environmental requirement.

Kopex-Ex conduits are used in many applications including to protect the critical data cables feeding the information from sensors to the instrumentation boxes as well as being used on the compressors protecting the wiring where temperatures can reach over 100ºC.

Related Products

EXL Conduit 148



Stopping Plugs 176

EFDC Range 122

EVS Range 42

Oil & Gas - Downstream Applications

Industry Overview

The term downstream relates to the processing and delivery of finished carbon related product to the end-user. This covers a whole range of applications from refining to petrol stations.

There are over 700 refineries globally all competing to supply finished carbon based products to local and international markets. The products refined are varied including:

- **Transportation fuels**
  LPG, gasoline, jet fuel, diesel, gas oil and bunker fuel.
- **Petrochemical feedstocks**
  LPG, naphtha and aromatics.
- **Energy sources**
  LPG, kerosene, heating oil and fuel oil.
- **Specialities**
  Lubricants, bitumen, coke, solvents and waxes.
- **Petrochemical feedstocks**
  Synthetic fibres (nylon), plastics (polyethylene, PVC).

Approvals / Characteristics

Ex IEC Ex

ZONE 1 ZONE 2 ZONE 21 ZONE 22

IP66

Product Selection

- **Continual Movement (CCTV)**
- **Extreme ambient temperature**
- **Protection level**
- **Consequence of down time**
- **Approval level required (Ex e, Ex d, etc.)**
- **Approval specification required ATEX, IECEx, UL, GOST, etc.**
- **Where product will be positioned, e.g. Zone 1 or Zone 2**

Oil & Gas - Downstream Applications

The refining process is in four stages, firstly distillation which separates it into 5 product sectors LPG, Naphtha, Kerosine, Gas, Oil, and Atmospheric residue, this is done using high temperature. The higher the temperature the higher the quality of the product.

The second stage is the upgrading or reforming. This stage is used to change the product at a molecular level for example changing the low octane version of Naphtha to high octane which can be blended into gasoline.

Stages three and four are about treating the product to remove impurities such as sulphur and blending the refined product into distinct products for the market.

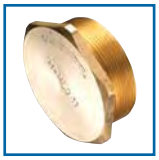
The final stage of the downstream process is delivery to the market which involves storage and transportation. For example in the case of aviation fuel this can be shipped direct to airports by road or rail where it is stored, before transferring to tanker trunks for the refuelling of aircraft.

All the stages in the downstream operation have different requirements to ensure safety of personnel and the quality of the end product. DTS and Kopex-Ex products are both used in this area whether it is the XF floodlight range or EVS fluorescent range. They are all designed for easy maintenance. There is also a range of instrumentation boxes either with standard configurations or custom made to end-user requirements, all of which are essential within a refinery where sensors play a key part on the process to ensure quality.

Kopex-Ex also plays a key part within the downstream market. It is not just used to protect the sensor cables but also for security on CCTV all the way through to the cable protection on rail tankers and tanker trucks.

Related Products


EXL Conduit 148


Stopping Plugs 176


XF Range 36


EVS Range 42

Food & Beverage Applications

Food Manufacture - Explosion Proof (Dust)

Food Industry

Thomas & Betts offer a range of products for the food processing market, including products for use in areas where stainless steel is preferred as well as areas classed as hazardous. Thomas & Betts can offer stainless steel control stations for use on automated food processing and packaging machines as well as lighting specifically designed for use in dust filled atmospheres such as flour mills or other places where the risk of explosion is considered to be extremely high.

Beverage Manufacture - Explosion Proof (Vapour)

Beverage Industry

Thomas & Betts has a range of products designed for use in all beverage production sectors in the malting, brewing, wine, spirits or soft drink business. DTS can supply lighting products to suit the needs of hazardous areas where explosive gases may occur or in areas where cleanliness is required.

Chemical & Pharmaceutical Applications

Chemical Engineering - Explosion Proof

Chemical Industry

The chemical industry produces very diverse products, everything from fertilizers to explosives such as nitroglycerin. The processes used in this industry mean that there are lots of applications for the DTS lighting and box ranges. DTS can offer standard or custom built products, whether it is for a process control station or for instrumentation boxes linking sensors back to central control panels.

Pharmaceutical Production - Explosion Proof

Pharmaceutical Industry

The Thomas & Betts range of products and solutions are ideal for use in the pharmaceutical Industry. Whether it is upstream in the primary production stage or downstream in the packing stage. Many of the processes and applications used in these areas require approvals to hazardous area standards making stainless steel junction and control boxes ideal.

World Standards and what they mean

Standards and what they mean

In this Section we will outline the different Standards used throughout the world and what it means for products specified for use in Hazardous Areas. Below is a map of the world which illustrates the Standards that are generally used in these regions.

Product Approvals

UL	CSA	IECEx	ATEX	GOST	INMETRO
CLASS & DIV	CLASS & ZONES	GROUPS & ZONES			

The ATEX Europe Directives 94/9/EC

ATEX requires employers to eliminate or control risks from dangerous substances and to classify areas where explosive atmospheres may occur into zones, as laid down in regulations. ATEX Directives are designed to protect employees, the public and the environment from accidents owing to explosive atmospheres and since July 1st 2006 all existing sites, as well as new sites, must be fully ATEX compliant.

Directive ATEX100a applies to equipment suppliers and manufacturers and ATEX137 applies to end users. These directives compliment each other, but have different purposes. ATEX100A covers both electrical and non-electrical products intended for use in hazardous areas, including mechanical equipment. The Directive came into existence in 2003 and products sold within the European Union designed for use in hazardous areas must have ATEX certification and bear the ATEX marking on the product or on a certificate plate. The obligation is placed upon the manufacturer or supplier of the product and the intention is to facilitate free movement of goods within the EU.

Declaration of Conformance

This has to be issued by the supplier for every order which is to be installed in a hazardous area. This document has to show that the equipment supplied complies with the latest harmonized standard.

IECEx (International Scheme)

The IECEx scheme is an international certificate of conformance for products used in a hazardous area.

This scheme provides:

a) A single certification of conformity for manufacturers to comply that includes:

i) Testing and assessment of products to a standard including a full test report.

ii) Ongoing surveillance of manufacturers premises.

b) A fast-track process for countries where regulations still require the issuing of national Ex certificates or approvals.

This scheme is in the process of being adopted by all the known standards across the world but are all working to various time scales.

UL (America) & CSA (Canada)

The American and Canadian standards are the only ones to have different classifications and locations. ATEX & IECEx work to Groups and Zones whereas the NEC & CEC works to Classes and Divisions, there is no direct comparison between the two. This means that it is imperative that the two standards are not inter-changed within an area.

GOST (Russia)

GOST follows similar rules to that of IECEx as far as the breakdown of the zones and other criteria are concerned. However, the requirements for this country mean that separate GOST markings are required on the product.

GOST is divided into GOST (R) which is the standard for Russian Federation and GOST (K) that cover Kazakhstan.

Electrical materials for use in potentially explosive atmospheres must conform to two major certification standards: IEC/CENELEC and NEC

The IEC (International Electrotechnical Commission) standards are accepted in practically all countries. They are identical to the European CENELEC standards.

The NEC (National Electrical Code) is mandatory in the United States. The 1996 version, art. 505, takes up the IEC designations for gas, temperature classes for materials and zone definition.

Gases and vapours classification

Gases are divided into four groups in the NEC (National Electrical Code) and three groups for IEC/CENELEC. The groups display the same hierachy of classification of gases and vapour. (See table on page 20).

Temperature classification

The IEC and the NEC have also defined a temperature classificiation for material used in zones at risk of explosion. (See table on page 21).

Zone Definitions
Onshore Gases & Vapours (as per ATEX 60079-10)

Zones for Onshore Gases & Vapours

FOR GASES & VAPOURS

ZONE 0

ZONE 0

Permanent / Frequent

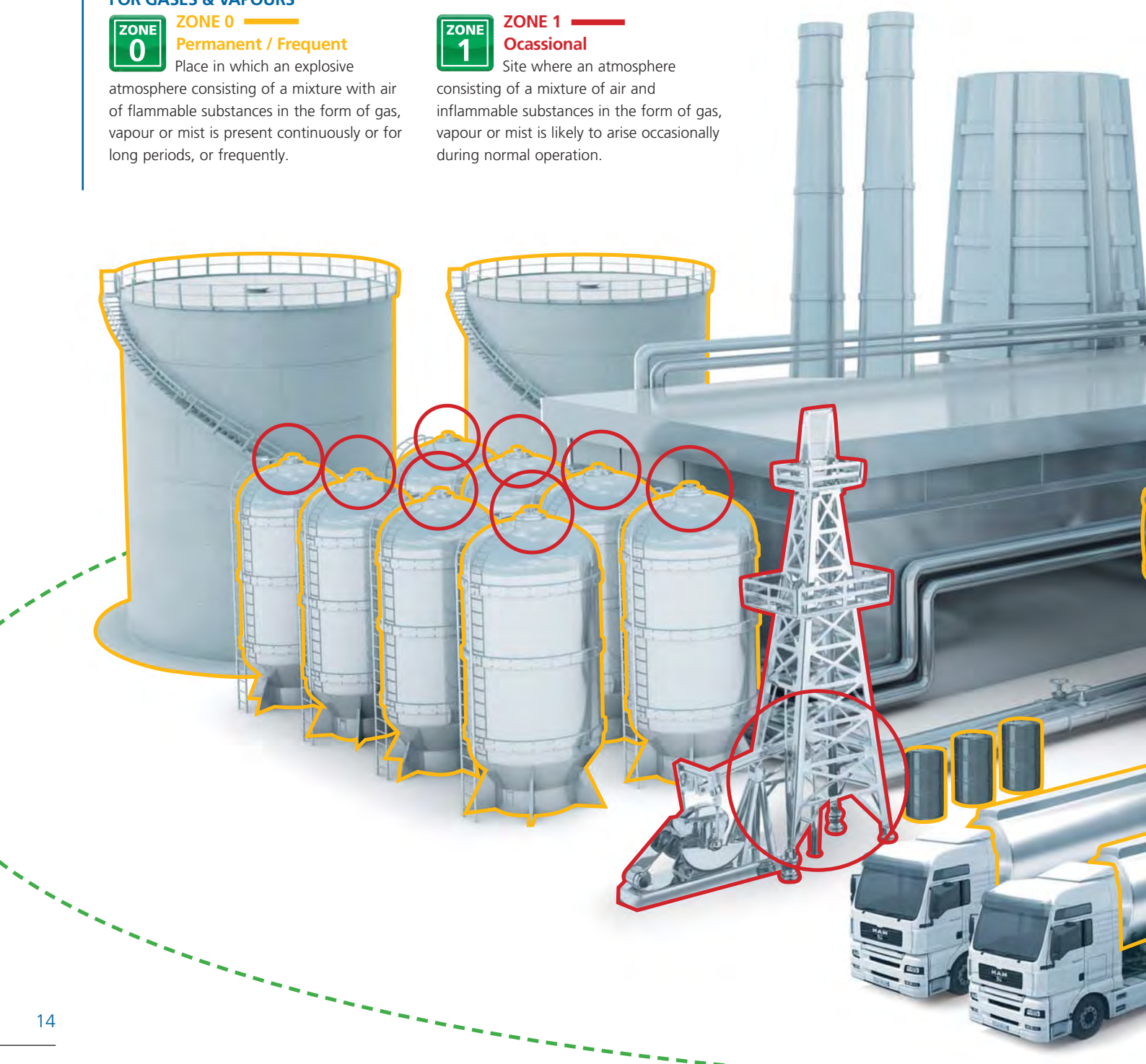
Place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is present continuously or for long periods, or frequently.

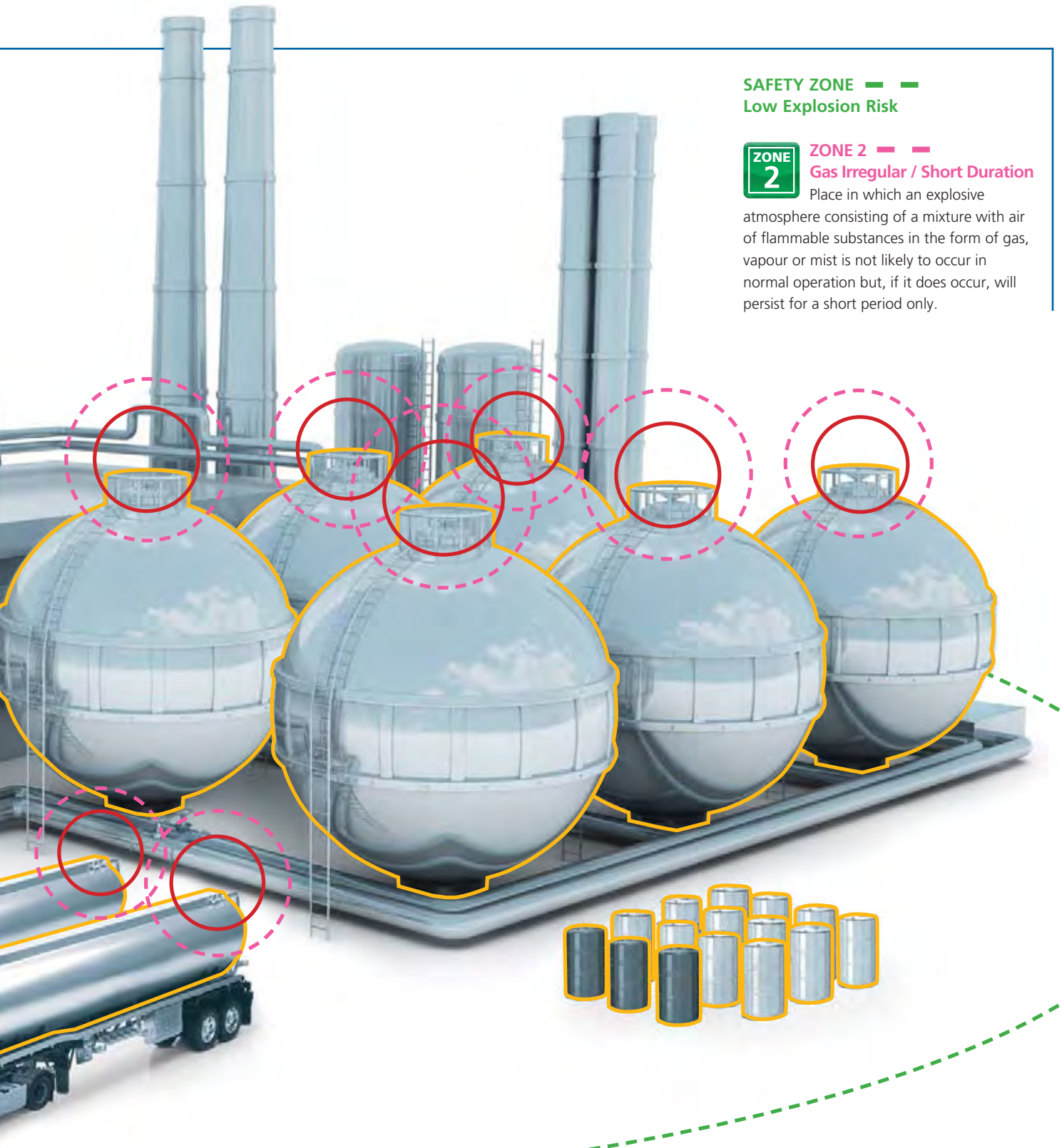
ZONE 1

ZONE 1

Ocassional

Site where an atmosphere consisting of a mixture of air and inflammable substances in the form of gas, vapour or mist is likely to arise occasionally during normal operation.





SAFETY ZONE
Low Explosion Risk

ZONE 2
Gas Irregular / Short Duration

Place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

Zone Definitions
Offshore Gases & Vapours (as per ATEX 60079-10)

Zones for Offshore Gases & Vapours

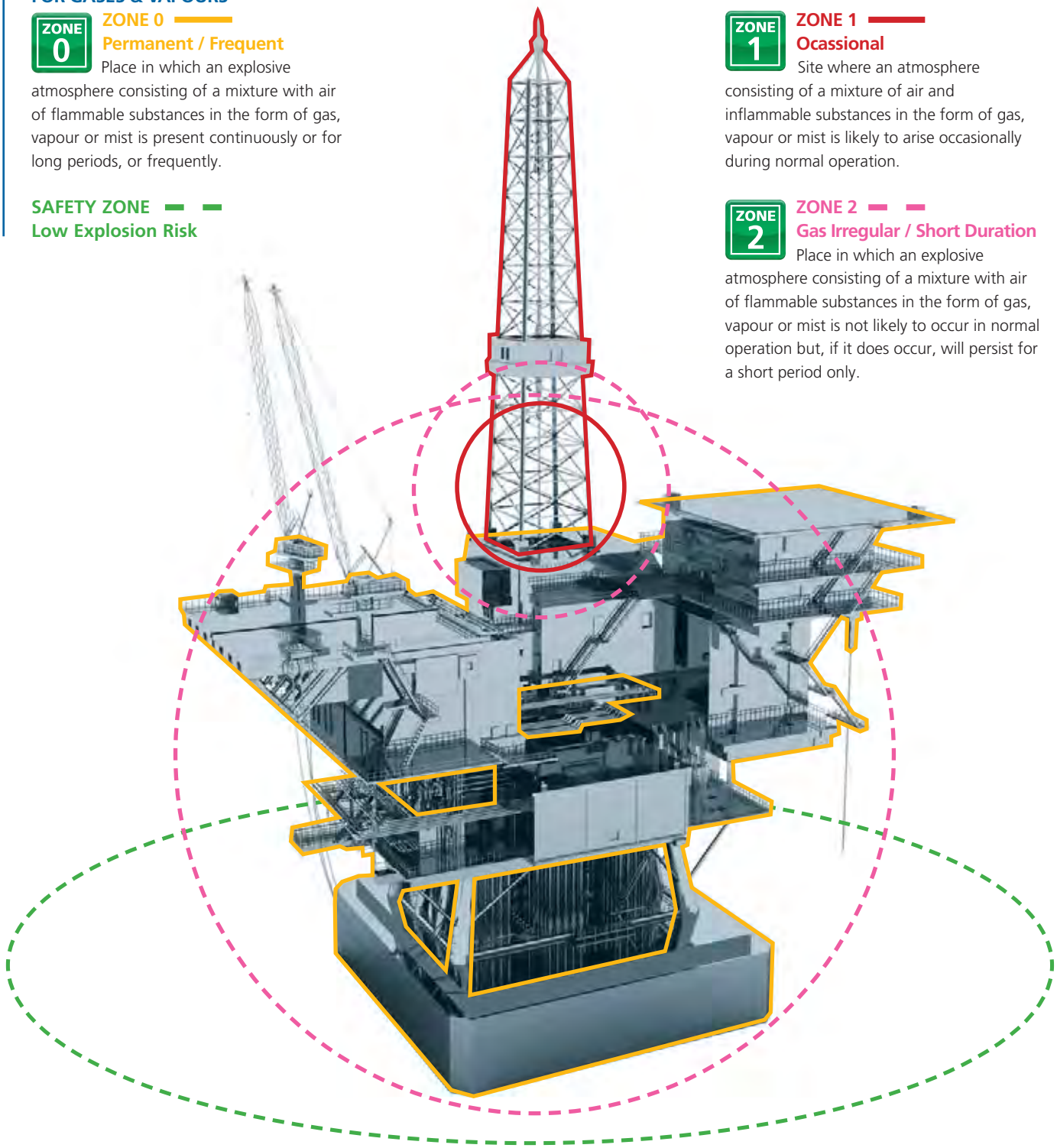
FOR GASES & VAPOURS

ZONE 0
Permanent / Frequent
Place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is present continuously or for long periods, or frequently.

SAFETY ZONE
Low Explosion Risk

ZONE 1
Ocassional
Site where an atmosphere consisting of a mixture of air and inflammable substances in the form of gas, vapour or mist is likely to arise occasionally during normal operation.

ZONE 2
Gas Irregular / Short Duration
Place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is not likely to occur in normal operation but, if it does occur, will persist for a short period only.



Zone Definitions
Dust (as per ATEX 60079)

Zones for Dust

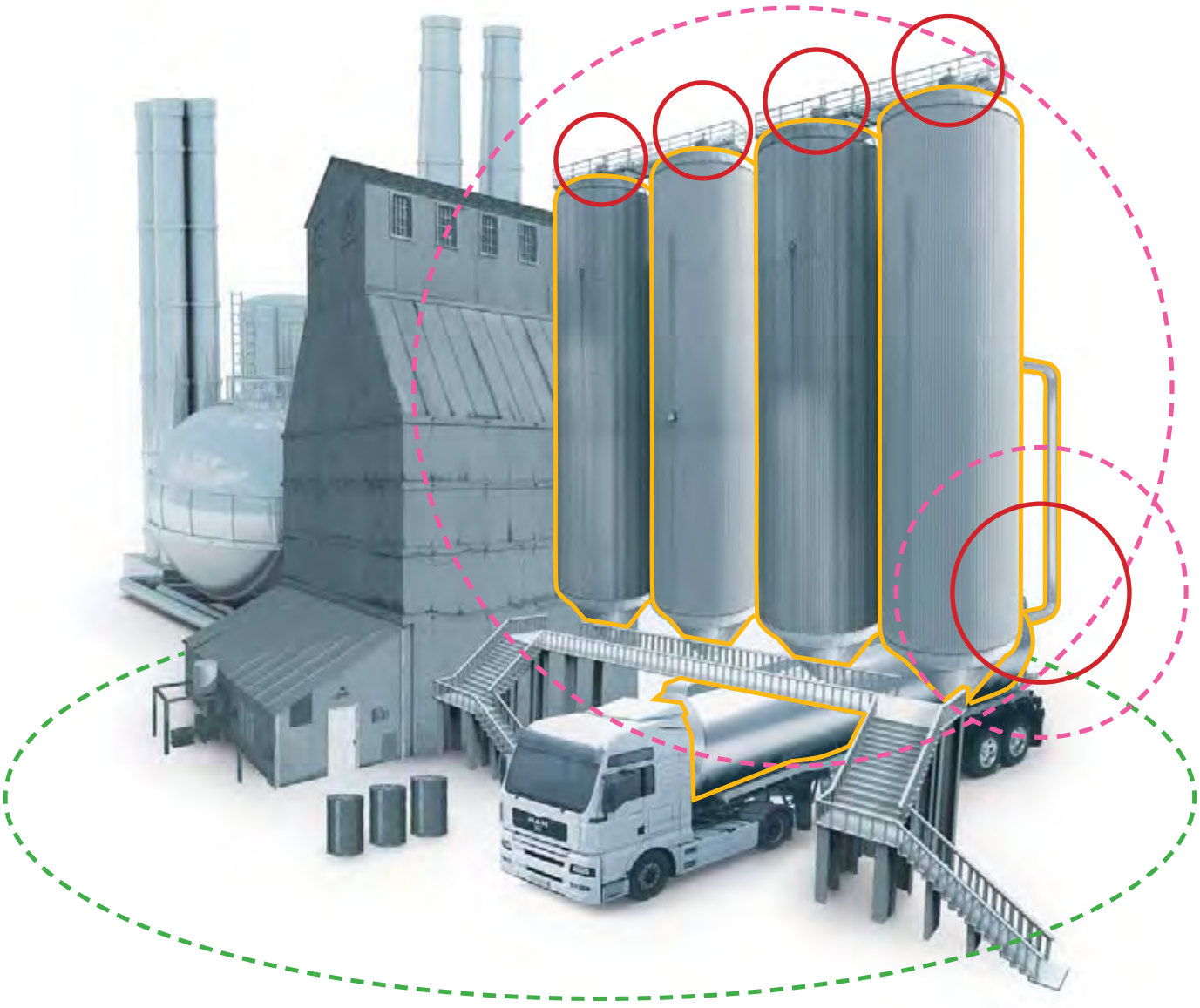
FOR DUST

ZONE 20
Permanent / Frequent
Area in which an explosive atmosphere in the form of a cloud of combustible dust in air is present continuously, or for long periods, or frequently.

ZONE 21
Occasional
Area in which an explosive atmosphere, in the form of a cloud of combustible dust in air is likely to occur, occasionally, in normal operation, ocassionally.

ZONE 22
Dust Irregular / Short Duration
Area in which an explosive atmosphere, in the form of a cloud of combustible dust in air is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

SAFETY ZONE
No Explosion Risk



DTS - Classification of equipment for use in potentially explosive atmospheres

Classification of hazardous areas		European/IEC or NEC classifications		
Flammable substances	Temporary behaviour of flammable substances in hazardous places	**Typical zones**	**Required marking** for installation	
			equipment group	equipment protection level
Gases Vapours	is present continuously or for long periods or frequently	zone 0	**II**	**Ga**
	is likely to occur in normal operation occasionally	zone 1	**II**	**Gb**
	is not likely to occur in normal opration but, if it does occur, will persist for a short period only	zone 2	**II**	**Gc**
Dusts	is present continuously or for for long periods or frequently	zone 20	**III**	**Da**
	is likely to occur in normal operation occasionally	zone 21	**III**	**Db**
	it is not likely to occur in normal operation but, if it does occur, will persist for a short period only	zone 22	**III**	**Dc**
Methane Dusts	-	mines	**I**	**Ma**
	-	mines	**I**	**Mb**

Subdivision of gases and vapours

Apparatus may be used in group	Gases or vapours			
IIA	ammonia methane ethane propane	ethyl alcohol cyclohexane n-butane	galsoline n-hexane	acetaldehyde
IIB	town gas, acrylnitril	ethylene ethylene oxide	ethylene glycol	ethyl-ether
IIC	hydrogen	ethine (acetylene)	sulphide of carbon	

Dust	
IIIA	Combustible Flyings
IIIB	Non-Conductive Dust
IIIC	Conductive Dust

Product stamp detail

DTS

XB10-SI

U=415V/50Hz

19-21, avenue Henri Baudelet
77831 Ozoir-la-Ferriere (France)

12/0116422

(Serial No.)

CE Ex 0081

Ex II 2 G Exe IIC T6/II 2 D (Gas) **Extb IIIC T85C IP66** (Dust)

LCIE 11 ATEX 3050 X

(Certification Number)

Restriction for using apparatus	
Requirements	**Marking**
Equipment without restriction	-
Equipment with special condition may be noted	**X**
Ex component, which is not intended to be used alone and requires additional certification before being used in hazardous area	**U**

Protection technique				
Application	**Type of protection**		**Marking**	**EN/IEC standard**
All applications	General requirements		-	60079-0
Control stations, motors, fuses, switchgear, power electronics	Flameproof enclosure		**Ex d**	60079-1
Installation materials, motors, luminaries	Increased safety		**Ex e**	60079-7
Measurement and control, automation technology, sensors, actuators	Intrinsic safety		**Ex i**	60079-11
Switch- and control cupboards, analyse-apparatus, computers	Pressurisation		**Ex p**	60079-2
Coils of motors or relays, solenoid valves	Encapsulation		**Ex m**	60079-18
Transformers, relays, control stations, magnetic contactors	Oil immersion		**Ex o**	60079-6
Capacitors, transformers	Powder filling		**Ex q**	60079-5
See at the top - only for zone 2	'Non sparking'		**Ex n**	60079-15
For use in zone 0, 1, 2 / for use in zone 1, 2	Dust atmospheres		**Ex t**	60079-31

Temperature Class (T) / Ignition Temperature

Product use depending on temperature class (T1 - T6).

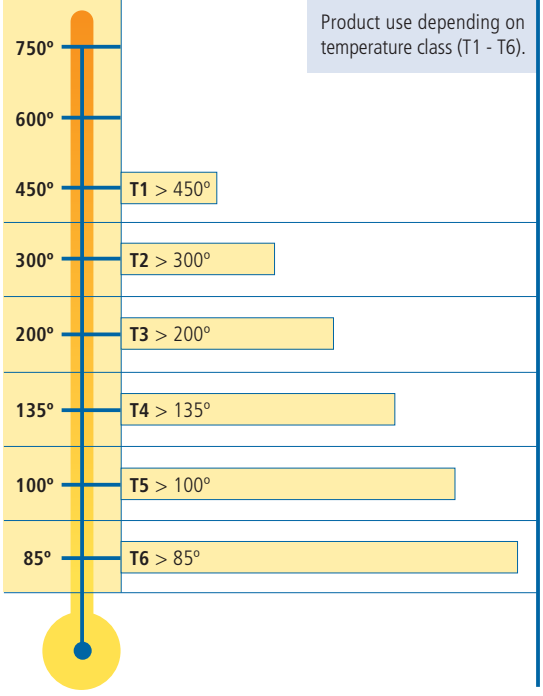
IIA **T1** Acetone 735°
IIA **T1** Ammonia 630°
IIB **T1** Carbon Monoxide 605°
IIA **T1** Bensene 560°
IIC **T1** Hydrogen 560°
IIA **T1** Methane 537°
IIA **T1** Toluene 535°
IIA **T1** Styrene 490°
IIA **T1** Propane 470°
IIA **T1** 1-Butene 455°
IIB **T1** Butadiene 430°

IIB **T2** Ethylene 425°
IIA **T2** Butane 372°
IIA **T2** Ethanol 363°
IIA **T2** Butylalcohol 359°
IIB **T2** Dimetylether 350°
IIC **T2** Acetylene 305°

IIA **T3** Nafta 290°
IIA **T3** Hydrogen Sulphide 270°
IIA **T3** Cyclohexane 259°
IIA **T3** Hexane 233°
IIA **T3** Heptane 215°
IIA **T3** Kerosene 210°
IIA **T3** Dekane 201°

IIB **T4** Diethyl Ether 160°

IIC **T6** Carbon Disulphide 95°



Kopex-Ex - Classification of equipment for use in potentially explosive atmospheres

Classification of hazardous areas		European/IEC or NEC classifications		
Flammable substances	Temporary behaviour of flammable substances in hazardous places	**Typical zones**	**Required marking** for installation	
			equipment group	equipment protection level
Gases Vapours	is present continuously or for long periods or frequently	zone 0	**II**	**Ga**
	is likely to occur in normal operation occasionally	zone 1	**II**	**Gb**
	is not likely to occur in normal opration but, if it does occur, will persist for a short period only	zone 2	**II**	**Gc**
Dusts	is present continuously or for for long periods or frequently	zone 20	**III**	**Da**
	is likely to occur in normal operation occasionally	zone 21	**III**	**Db**
	it is not likely to occur in normal operation but, if it does occur, will persist for a short period only	zone 22	**III**	**Dc**
Methane Dusts	-	mines	**I**	**Ma**
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Subdivision of gases and vapours

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IIC	hydrogen	ethine (acetylene)	sulphide of carbon	

Dust	
IIIA	Combustible Flyings
IIIB	Non-Conductive Dust
IIIC	Conductive Dust

Product stamp detail

CMPL Ex I M2/II 2GD Exde I Mb Exde IIC Gb Extb IIIC Db

(Product stamp detail)

CSA CLI.Div1.ABCD .CLII.Div1.EFG.

(Class & Divisions)

CLI (Class I), Div1
Where ignitable concentrations of flammable gases, vapors or liquids are present within the atmosphere under normal operation conditions.

CLI (Class I), Div2
Where ignitable concentrations of flammable gases, vapors or liquids are present within the atmosphere under abnormal operation conditions.

Class I Areas
Group A: Acetylene / Group B: Hydrogen /
Group C: Propane & Ethylene / Group D: Benzene, Butane & Propane.

CLII (Class II), Div1
Where ignitable concentrations of combustible dusts are present within the atmosphere under normal operation conditions.

CLII (Class II), Div2
Where ignitable concentrations of combustible dusts are present within the atmosphere under abnormal operation conditions.

Class II Areas
Group E: Metal Dust / Group F: Carbon & Charcoal / Group G: Flour, Starch, Wood & Plastic.

Restriction for using apparatus	
Requirements	**Marking**
Equipment without restriction	-
Equipment with special condition may be noted	**X**
Ex component, which is not intended to be used alone and requires additional certification before being used in hazardous area	**U**

Protection technique

Application	Type of protection		Marking	EN/IEC standard
All applications	General requirements		-	60079-0
Control stations, motors, fuses, switchgear, power electronics	Flameproof enclosure		**Ex d**	60079-1
Installation materials, motors, luminaries	Increased safety		**Ex e**	60079-7
Measurement and control, automation technology, sensors, actuators	Intrinsic safety		**Ex i**	60079-11
Switch- and control cupboards, analyse-apparatus, computers	Pressurisation		**Ex p**	60079-2
Coils of motors or relays, solenoid valves	Encapsulation		**Ex m**	60079-18
Transformers, relays, control stations, magnetic contactors	Oil immersion		**Ex o**	60079-6
Capacitors, transformers	Powder filling		**Ex q**	60079-5
See at the top - only for zone 2	'Non sparking'		**Ex n**	60079-15
For use in zone 0, 1, 2 / for use in zone 1, 2	Dust atmospheres		**Ex t**	60079-31

IECEx SIRA09.0103 X

(Certification Number)

IIA **T1** Acetone 735°
IIA **T1** Ammonia 630°
IIB **T1** Carbon Monoxide 605°
IIA **T1** Bensene 560°
IIC **T1** Hydrogen 560°
IIA **T1** Methane 537°
IIA **T1** Toluene 535°
IIA **T1** Styrene 490°
IIA **T1** Propane 470°
IIA **T1** 1-Butene 455°
IIB **T1** Butadiene 430°

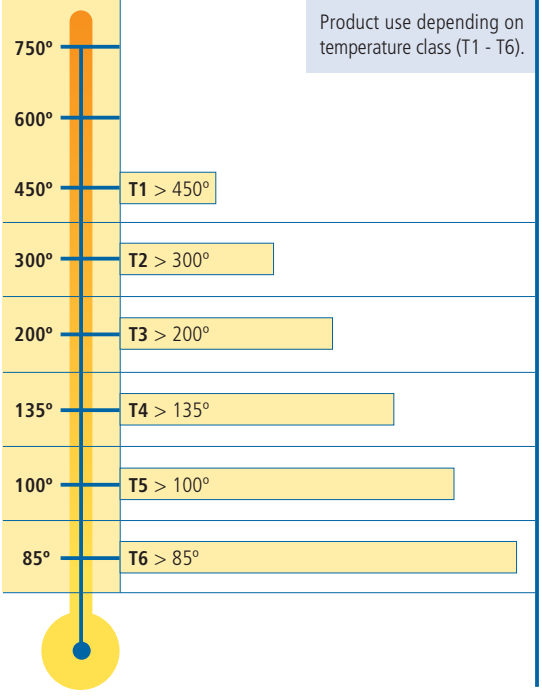
IIB **T2** Ethylene 425°
IIA **T2** Butane 372°
IIA **T2** Ethanol 363°
IIA **T2** Butylalcohol 359°
IIB **T2** Dimetylether 350°
IIC **T2** Acetylene 305°

IIA **T3** Nafta 290°
IIA **T3** Hydrogen Sulphide 270°
IIA **T3** Cyclohexane 259°
IIA **T3** Hexane 233°
IIA **T3** Heptane 215°
IIA **T3** Kerosene 210°
IIA **T3** Dekane 201°

IIB **T4** Diethyl Ether 160°

IIC **T6** Carbon Disulphide 95°

Temperature Class (T) / Ignition Temperature



Product use depending on temperature class (T1 - T6).

New Marking - EPL's (Explosion Protection Levels)

The introduction of the EPL's and changes in the EN 60079 series standard has introduced new marking requirements.

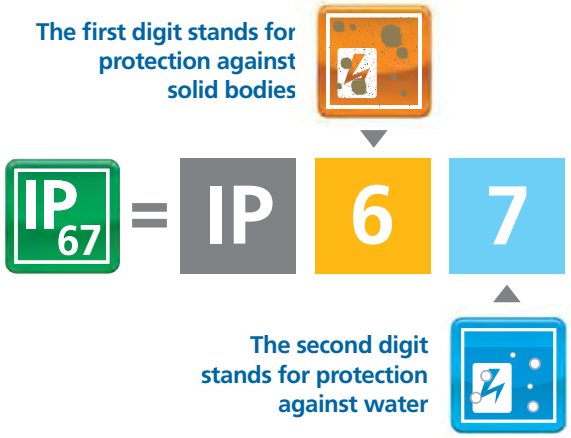
Index of Ingress Protection

IPxx suitability ratings are a system for classifying the degree of protection provided by enclosures of electrical equipment. The higher the number, the greater the degree of protection, in accordance with standards IEC 60529 and EN 60529.

Protection standrards

- Protection against solid bodies
- Protection against liquids
- Protection against impact a per EN 50102 standard

IP Classification



Protection against Solid Bodies

0	No protection
1	Protected against solid bodies of 50mm and greater, (e.g. accidental contact with the hand)
2	Protected against solid bodies of 12.5mm and greater, (e.g. accidental touch by fingers)
3	Protected against solid bodies of 2.5mm and greater, (e.g. tools and wires)
4	Protected against solid bodies of 1mm or greater, (e.g. thin tools and fine wires)
5	Protected against dust - limited ingress (no harmfull deposits)
6	Totally protected against dust (Dust-tight)

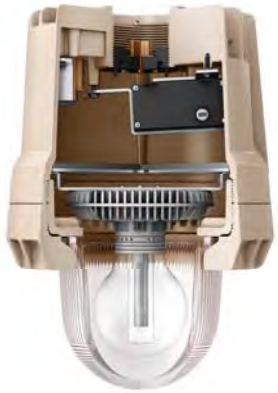
Protection against Liquids

0	No protection
1	Protected against vertically falling drops of water (condensation)
2	Protected against drops of water falling up to 15° from the vertical
3	Protected against drops of water falling up to 60° from the vertical
4	Protected against splashing water from all directions
5	Protection against jets of water from all directions
6	Protection against powerful jets of water from all directions
7	Protected against the effects of temporary immersion in water
8	Protected against the continuous effects of immersion in water having regard to specific conditions
9	IP69k Automotive standard DIN40050 signifies resistance to high pressure jets (up to 80bar) from any angle

Hazlux®

Introducing the *NEW* Industrial and Hazardous Location Lighting Catalogue from Hazlux®

Thomas & Betts® is committed to delivering high quality industrial lighting fixtures designed, tested and certified for use in hazardous locations and adverse environment conditions.

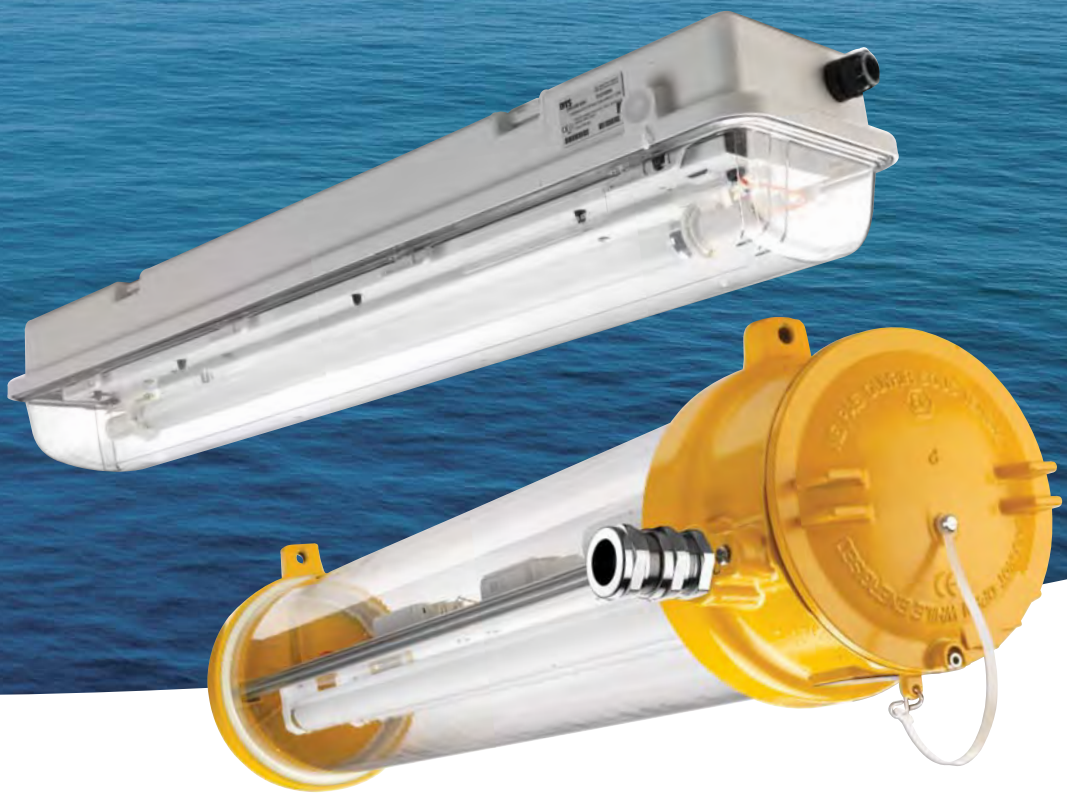


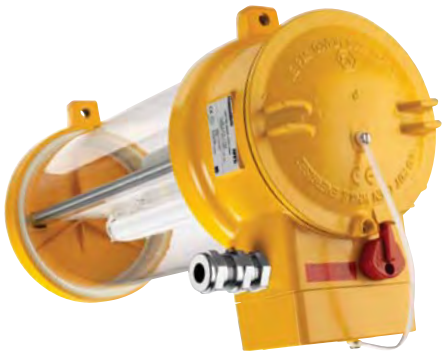
You can rely on **Hazlux®** to safely provide light where you need it - even under the harshest indoor and outdoor conditions. If safety, labour reduction, quality and reliability are your priorities, consider **Hazlux®** lighting products to reduce maintenance and prevent downtimes. Specifically designed and approved to UL and CSA for the American market.

Call now to order!

our *NEW* Industrial and Hazardous Location Lighting product catalogue on tel +44 (0) 1675 468 213 or visit our website at www.tnb-hazardous.com

Ex Lighting Fittings





Ex Lighting Fittings - Selection Guide

Ex Lighting Range

	XFF Page 28	XFP Page 30	XEL Page 32	XEP Page 34	XF Page 36	XDF Page 40	EVS Page 42	EVN Page 44	EVD Page 46	ESB Page 48
Ex	●	●	●	●	●	●	●	●	●	●
IEC Ex					●		●		●	
Protection Type – Exd	●		●							
Protection Type – Exde		●		●	●		●			●
Protection Type – Extb	●	●	●	●			●	●		
Protection Type – Exn						●		●		
Protection Type – Extc						●				
Protection Type – Ext									●	
Gas Groups – IIB	●	●			●					
Gas Groups – IIC	●	●	●	●		●	●	●		●
Dust Groups – IIIC	●	●	●	●		●	●	●	●	
Zones – Zone 1	●	●	●	●	●		●			●
Zones – Zone 2	●	●	●	●	●	●	●	●		●
Zones – Zone 21	●	●	●	●			●		●	
Zones – Zone 22	●	●	●	●		●	●	●	●	

Ex Emergency & Escape Lighting Range

							
XFF-EM Page 50	**XFP-EM** Page 52	**XEL-BAES** Page 54	**EVS-EM** Page 58	**EVS-EMA** Page 60	**EVN-EM** Page 62	**EVD-EM** Page 64	**ESB-EM** Page 66
●	●	●	●	●	●	●	
			●	●		●	
●		●					
	●	●	●	●			●
●	●	●	●	●	●		
					●		
						●	
●	●						
●	●	●	●	●	●		●
●	●	●	●	●	●	●	
●	●	●	●	●			●
●	●	●	●	●	●		●
●	●	●	●	●		●	
●	●	●	●	●	●	●	

XFF Range

Tubular fluorescent fitting

Approvals / Characteristics

Ex

Exd Extb

G IIB G IIC D IIIC

GROUP II

ZONE 1 ZONE 2 ZONE 21 ZONE 22

IP66 IK09 Polycarbonate Version

IP66 IK07 Glass Version

Features

- **Manufactured from marine grade aluminium**
- **Supplied with offshore grade paint**
- **All components mounted on sliding gear tray for easy installation and maintenance**
- **Standard components used inside body allowing reduced maintenance costs**
- **Available in polycarbonate (light, high impact resistant) or in glass (specific chemical environment & paint shop)**
- **Including accessories (cable gland & fixing brackets)**

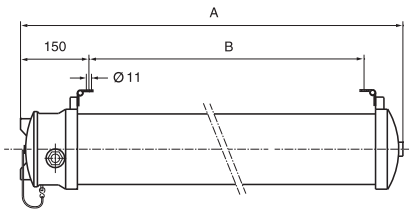
Certification & Standards

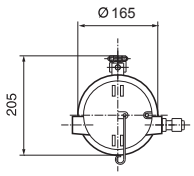
Approved to: EN60079-0, 60079-1, 60079-31
EC TYPE Examination Certificate:
INERIS 11 ATEX 0051X
Ex II 2 G
Ex d IIC T6 Gb for ≤ -20°C to ≤ +55°C (All Polycarbonate tubes)
Ex d IIC T6 Gb for ≤ -20°C to ≤ +55°C (Glass tubes)
Ex d IIB T6 Gb for ≤ -20°C to ≤ +55°C (Glass versions - XFR140, XFR165, XFF240 and XFF265)
Ex II 2 D
Ex tb IIIC T80°C Db IP66
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +55°C

The fixture is supplied with non-barrier cable glands. For installations in either Zone 1 or in the presence of Group IIC gases, barrier glands are required. Please refer to EN-60079-14.

Dimensions

Technical Specifications





Type	Wiring Configuration	Rating (W)	Nominal Current (A)	Diffuser	Dimensions (mm) A	B	Weight (kg)
XFR120-0G000	5 Wire	1 x 18	0.15	Polycarbonate	780	565	5.5
XFR136-0G000	5 Wire	1 x PL36	0.2	Polycarbonate	780	565	6
XFR140-0G000	5 Wire	1 x 36	0.2	Polycarbonate	1385	1170	9
XFR155-0G000**	5 Wire	1 x PL55	0.25	Polycarbonate	780	565	6
XFR165-0G000	5 Wire	1 x 58	0.35	Polycarbonate	1690	1475	11
XFF220-0G000	5 Wire	2 x 18	0.3	Polycarbonate	780	565	6.5
XFF236-0G000	5 Wire	2 x PL36	0.4	Polycarbonate	780	565	6.5
XFF240-0G000	5 Wire	2 x 36	0.4	Polycarbonate	1385	1170	10
XFF255-0G000**	5 Wire	2 x PL55	0.5	Polycarbonate	780	565	6.5
XFF265-0G000	5 Wire	2 x 58	0.5	Polycarbonate	1690	1475	12
XFR120V-0G000	5 Wire	1 x 18	0.15	Glass	780	565	7
XFR136V-0G000	5 Wire	1 x PL36	0.2	Glass	780	565	8
XFR140V-0G000	5 Wire	1 x 36	0.2	Glass	1385	1170	17
XFR155V-0G000**	5 Wire	1 x PL55	0.25	Glass	780	565	8
XFR165V-0G000	5 Wire	1 x 58	0.35	Glass	1690	1475	17
XFF220V-0G000	5 Wire	2 x 18	0.3	Glass	780	565	8.5
XFF236V-0G000	5 Wire	2 x PL36	0.4	Glass	780	565	8.5
XFF240V-0G000	5 Wire	2 x 36	0.4	Glass	1385	1170	18
XFF255V-0G000**	5 Wire	2 x PL55	0.5	Glass	780	565	8.5
XFF265V-0G000	5 Wire	2 x 58	0.5	Glass	1690	1475	20

***T5 for gas or T95°C for dust when supply is 240V AC*

Enclosure
End caps according to standard:
EN1706:EN AC-AlSi12(Fe) DF or
EN AC-AlSi10Mg(a) DF marine grade aluminium
UV protected extruded polycarbonate tube, thickness 2.5mm
Borosilicate glass, thickness 7mm

Fixing
Standard: D023 - 2 Zinc Plated Steel articulated (brackets for ceiling mounting included)

Rated voltages
Electronic ballast:
AC/DC 110-260V, 50-60Hz

Power factor
Up to 0.98

Cable entries
Standard: Two entries 3/4" NPT included
One 3/4" Nickel Plated Brass plug (EXN/075/SP)
One cable gland (EXN05AMC3) - 3/4" NPT Nickel Plated Brass for non-armoured cable, diameter 12-16mm

Terminal block (plug in terminal block)
Up to 10mm² (rigid wire), 6mm² (flexible wire)
Terminals supplied L1, L2, L3, N, PE (looping possible with 1 additional cable gland)

Lamps (order separately)
T8 bi-pin G13 tube, Ø 26 - white industry 4000°K
G11 compact fluorescent PL lamp

Shock proof kit
See dimension column A
D036 - 1690mm
D035 - 1385mm
D034 - 780mm

Other options
Stainless steel shock proof kit 304L

Colour (standard)
- XF****-0G000 - Yellow offshore, RAL 1003

Colour options
- XF****-BG000 - Grey, RAL 7035
- XF****-CG000 - Black, RAL 9004
- XF****-DG000 - Hammered Blue, RAL 5015
- XF****-FG000 - Red, RAL 3001
- XF****-GG000 - Blue, RAL 5010
- XF****-JG000 - Green, RAL 6032
- XF****-MG000 - White, RAL 9010

Spares & Fixings Accessories see pages 90-95

Related Products


EXL Conduit 148


Stopping Plugs 174


GUV Range 120


Ex d Cable Gland 162

XFP Range

Tubular fluorescent fitting with automatic switch off

Approvals / Characteristics

Ex

Exde | Extb

G IIB | G IIC | D IIIC

GROUP II

ZONE 1 | ZONE 2 | ZONE 21 | ZONE 22

IP66 | IK09 — Polycarbonate Version

IP66 | IK07 — Glass Version

Features

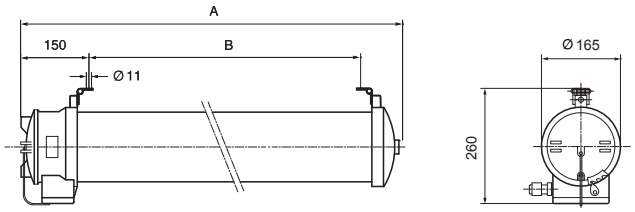
- Manufactured from marine grade aluminium
- Supplied with offshore grade paint
- All components mounted on sliding gear tray for easy installation and maintenance
- Standard components used inside body allowing reduced maintenance costs
- Available in polycarbonate (light, high impact resistant) or in glass (specific chemical environment & paint shop)
- Including accessories (cable gland & fixing brackets)

Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7
EC TYPE Examination Certificate:
INERIS 11 ATEX 0052X
Ex II 2 G
Ex de IIC T6 Gb for ≤ -20°C to ≤ +55°C (All Polycarbonate tubes)
Ex de IIC T6 Gb for ≤ -20°C to ≤ +55°C (Glass tubes)
Ex de IIB T6 Gb for ≤ -20°C to ≤ +55°C (Glass versions - XFP140V, XFP165V, XFP240V and XFP265V)
Ex II 2 D
Ex tb IIIC T80°C Db IP66
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +55°C

Dimensions

Technical Specifications



Type	Wiring Configuration	Rating (W)	Nominal Current (A)	Diffuser	Dimensions (mm) A	B	Weight (kg)
XFP120-0G000	3 Wire	1 x 18	0.15	Polycarbonate	780	565	5.5
XFP136-0G000	3 Wire	1 x PL36	0.2	Polycarbonate	780	565	6
XFP140-0G000	3 Wire	1 x 36	0.2	Polycarbonate	1385	1170	9
XFP155-0G000**	3 Wire	1 x PL55	0.25	Polycarbonate	780	565	6
XFP165-0G000	3 Wire	1 x 58	0.35	Polycarbonate	1690	1475	11
XFP220-0G000	3 Wire	2 x 18	0.3	Polycarbonate	780	565	6.5
XFP236-0G000	3 Wire	2 x PL36	0.4	Polycarbonate	780	565	6.5
XFP240-0G000	3 Wire	2 x 36	0.4	Polycarbonate	1385	1170	10
XFP255-0G000**	3 Wire	2 x PL55	0.5	Polycarbonate	780	565	12
XFP265-0G000	3 Wire	2 x 58	0.5	Polycarbonate	1690	1475	12
XFP120V-0G000	3 Wire	1 x 18	0.15	Glass	780	565	7
XFP136V-0G000	3 Wire	1 x PL36	0.2	Glass	780	565	8
XFP140V-0G000	3 Wire	1 x 36	0.2	Glass	1385	1170	17
XFP155V-0G000**	3 Wire	1 x PL55	0.25	Glass	780	565	8
XFP165V-0G000	3 Wire	1 x 58	0.35	Glass	1690	1475	17
XFP220V-0G000	3 Wire	2 x 18	0.3	Glass	780	565	8.5
XFP236V-0G000	3 Wire	2 x PL36	0.4	Glass	780	565	8.5
XFP240V-0G000	3 Wire	2 x 36	0.4	Glass	1385	1170	18
XFP255V-0G000**	3 Wire	2 x PL55	0.5	Glass	780	565	18
XFP265V-0G000	3 Wire	2 x 58	0.5	Glass	1690	1475	20

***T5 for gas or T95°C for dust when supply is 240V AC*

Enclosure
End caps according to standard:
EN1706:EN AC-AlSi12(Fe) DF or EN AC-AlSi10Mg(a) DF marine grade aluminium
UV protected extruded polycarbonate tube, thickness 2.5mm
Borosilicate glass, thickness 7mm
Fixing
Standard: D023 - 2 Zinc Plated Steel articulated (brackets for ceiling mounting included)
Rated voltages
Standard electronic ballast:
AC/DC 110-260V, 50-60Hz
Power factor
Up to 0.98

Cable entries
Standard: One entry M20
One cable gland (EXN04MMC2) - M20 Nickel Plated Brass for non-armoured cable, diameter 10-16mm
Terminal block (plug in terminal block)
Up to 6mm² (rigid wire), 4mm² (flexible wire)
Terminals supplied L, N, PE
Lamps (order separately)
T8 bi-pin G13 tube, Ø 26 - white industry 4000°K
G11 compact fluorescent PL lamp
Other options
Stainless steel shock proof kit 304L

Shock proof kit
See dimension column A
D036 - 1690mm
D035 - 1385mm
D034 - 780mm
Colour (standard)
- XFP***-0G000 - Yellow offshore, RAL 1003

Colour options
- XFP***-BG000 - Grey, RAL 7035
- XFP***-CG000 - Black, RAL 9004
- XFP***-DG000 - Hammered Blue, RAL 5015
- XFP***-FG000 - Red, RAL 3001
- XFP***-GG000 - Blue, RAL 5010
- XFP***-JG000 - Green, RAL 6032
- XFP***-MG000 - White, RAL 9010

Related Products


EXL Conduit 148


Stopping Plugs 174


GUV Range 120


Ex d Cable Gland 162

XEL Range

Miniature tubular fluorescent fitting

Approvals / Characteristics

Ex

Exd Extb

G IIC D IIIC

GROUP II

ZONE 1 ZONE 2 ZONE 21 ZONE 22

IP66 IK09 Polycarbonate Version

IP66 IK07 Glass Version

Features

- **Manufactured from marine grade aluminium**
- **Supplied with offshore grade paint**
- **All components mounted on the gear tray for easy installation and maintenance**
- **Standard components used inside the body allowing reduced maintenance costs**
- **Available in polycarbonate (light, high impact resistant) or in glass (for specific chemical environment and paint shop for easy cleaning)**
- **Including accessories (cable gland & fixing brackets)**

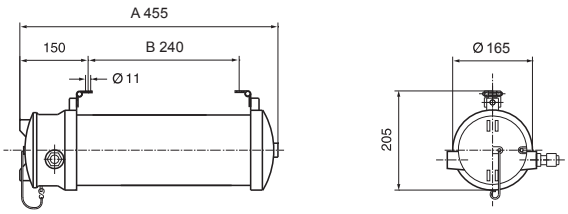
Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7, 60079-31
EC TYPE Examination Certificate:
INERIS II ATEX 0051X
Ex II 2 G
Ex d IIC T6 Gb
Ex II 2 D
Ex tb IIIC T80°C Db IP66
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +55°C

The fixture is supplied with non-barrier cable glands. For installations in either Zone 1 or in the presence of Group IIC gases, barrier glands are required. Please refer to EN-60079-14

Dimensions

Technical Specifications



Type	Wiring Configuration	Rating (W)	Nominal Current (A)	Diffuser	Dimensions (mm) A	B	Weight (kg)
XEL3008-0G000	5 Wire	1 x 8	0.1	Polycarbonate	455	240	5
XEL3009-0G000	5 Wire	1 x PL9	0.1	Polycarbonate	455	240	9
XEL30011-0G000	5 Wire	1 x PL11	0.1	Polycarbonate	455	240	5
XEL120-0G000	5 Wire	1 x PL18	0.3	Polycarbonate	455	240	4.5
XEL220-0G000	5 Wire	2 x PL18	0.5	Polycarbonate	455	240	5
XEL30028-0G000	5 Wire	2 x 8	0.1	Polycarbonate	455	240	5
XEL3008V-0G000	5 Wire	1 x 8	0.1	Glass	455	240	7
XEL3009V-0G000	5 Wire	1 x PL9	0.1	Glass	455	240	9
XEL30011V-0G000	5 Wire	1 x PL11	0.1	Glass	455	240	7
XEL120V-0G000	5 Wire	1 x PL18	0.3	Glass	455	240	6.5
XEL220V-0G000	5 Wire	2 x PL18	0.5	Glass	455	240	7
XEL30028V-0G000	5 Wire	2 x 8	0.1	Glass	455	240	7

Enclosure
End caps according to standard:
EN1706:EN AC-AlSi12(Fe) DF or
EN AC-AlSi10Mg(a) DF marine grade aluminium
UV protected extruded polycarbonate tube, thickness 2.5mm
Borosilicate glass, thickness 7mm
Fixing
Standard: D023 - 2 Zinc Plated Steel articulated (brackets for ceiling mounting included)

Rated voltages
Standard electronic ballast:
AC/DC 220-240V, 50-60Hz
Power factor
Up to 0.98
Cable entries
XEL: Two entries 3/4" NPT included
One 3/4" Nickel Plated Brass plug (EXN/075/SP)
One cable gland (EXN05AMC3) - 3/4" NPT Nickel Plated Brass for non-armoured cable, diameter 12-16mm
Terminal block
Up to 10mm² (rigid wire), 6mm² (flexible wire)
Terminals supplied L1, L2, L3, N, PE (looping possible with 1 additional cable gland)

Lamps (order separately)
T5 bi-pin G5 tubes, Ø 16 coolwhite 4000°K
Compact fluorescent PL lamp with G11 base (18W) or G23 (7W, 9W, 11W)
Colour (standard)
- XEL***-0G000 - Yellow offshore, RAL 1003

Colour options
- XEL***-BG000 - Grey, RAL 7035
- XEL***-CG000 - Black, RAL 9004
- XEL***-DG000 - Hammered Blue, RAL 5015
- XEL***-FG000 - Red, RAL 3001
- XEL***-GG000 - Blue, RAL 5010
- XEL***-JG000 - Green, RAL 6032
- XEL***-MG000 - White, RAL 9010

Spares & Fixings Accessories see pages 90-95

Related Products


EXL Conduit 148


Stopping Plugs 174


GUV Range 120


Ex d Cable Gland 162

XEP Range

Miniature tubular fluorescent fitting with automatic switch off

Approvals / Characteristics

Ex

Exde | Extb

G IIC | G IIIC

GROUP II

ZONE 1 | ZONE 2 | ZONE 21 | ZONE 22

IP66 | IK09 — Polycarbonate Version

IP66 | IK07 — Glass Version

Features

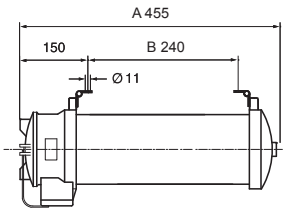
- Manufactured from marine grade aluminium
- Supplied with offshore grade paint
- Maintenance in hazardous area - quick and easy isolation switch for safe maintenance in hazardous area
- All components mounted on the gear tray for easy installation and maintenance
- Standard components used inside the body allowing reduced maintenance costs
- Available in polycarbonate (light, high impact resistant) or in glass (specific chemical environment & paint shop)
- Including accessories (cable gland & fixing brackets)

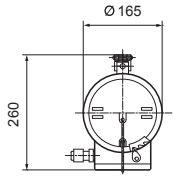
Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7
EC TYPE Examination Certificate:
INERIS II ATEX 0052X
Ex II 2 G
Ex de IIC T6 Gb
Ex II 2 D
Ex tb IIIC T80°C Db IP66
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +55°C

Dimensions

Technical Specifications





Type	Wiring Configuration	Rating (W)	Nominal Current (A)	Diffuser	Dimensions (mm) A	B	Weight (kg)
XEP3008-0G000	3 Wire	1 x 8	0.1	Polycarbonate	455	240	5
XEP3009-0G000	3 Wire	1 x PL9	0.1	Polycarbonate	455	240	5
XEP30011-0G000	3 Wire	1 x PL11	0.1	Polycarbonate	455	240	5
XEP120-0G000	3 Wire	1 x PL18	0.3	Polycarbonate	455	240	4.5
XEP220-0G000	3 Wire	2 x PL18	0.5	Polycarbonate	455	240	5
XEP30028-0G000	3 Wire	2 x 8	0.1	Polycarbonate	455	240	5
XEP3008V-0G000	3 Wire	1 x 8	0.1	Glass	455	240	7
XEP3009V-0G000	3 Wire	1 x PL9	0.1	Glass	455	240	7
XEP30011V-0G000	3 Wire	1 x PL11	0.1	Glass	455	240	7
XEP120V-0G000	3 Wire	1 x PL18	0.3	Glass	455	240	6.5
XEP220V-0G000	3 Wire	2 x PL18	0.5	Glass	455	240	7
XEP30028V-0G000	3 Wire	2 x 8	0.1	Glass	455	240	7

Enclosure
End caps according to standard:
EN1706:EN AC-AlSi12(Fe) DF or
EN AC-AlSi10Mg(a) DF marine grade aluminium
UV protected extruded polycarbonate tube, thickness 2.5mm
Borosilicate glass, thickness 7mm
Fixing
Standard: D023 - 2 Zinc Plated Steel articulated (brackets for ceiling mounting included)

Rated voltages
Standard electronic ballast:
AC/DC 220-240V, 50-60Hz
Power factor
Up to 0.98
Cable entries
Standard: One M20 cable entry included
One cable gland (EXN04MMC2), Nickel Plated Brass for non-armoured cable, diameter 10-16mm
Terminal block
Up to 6mm² (rigid wire), 4mm² (flexible wire)
Terminals supplied for L, N, PE

Lamps (order separately)
T5 bi-pin G5 tubes, Ø 16 coolwhite 4000°K
Compact fluorescent PL lamp with G11 base (18W) or G23 (7W, 9W, 11W)
Colour (standard)
- XEP***-0G000 - Yellow offshore, RAL 1003

Colour options
- XEP***-BG000 - Grey, RAL 7035
- XEP***-CG000 - Black, RAL 9004
- XEP***-DG000 - Hammered Blue, RAL 5015
- XEP***-FG000 - Red, RAL 3001
- XEP***-GG000 - Blue, RAL 5010
- XEP***-JG000 - Green, RAL 6032
- XEP***-MG000 - White, RAL 9010

Spares & Fixings Accessories see pages 90-95

Related Products


EXL Conduit 148


Stopping Plugs 174


GUV Range 120


Ex d Cable Gland 162

XHM : Also available pre mounted
(see opposite for details)

XF Range
Floodlight fittings

Approvals / Characteristics

Exde

G IIB

GROUP II

ZONE 1 ZONE 2

IP 64 IK 09

Features

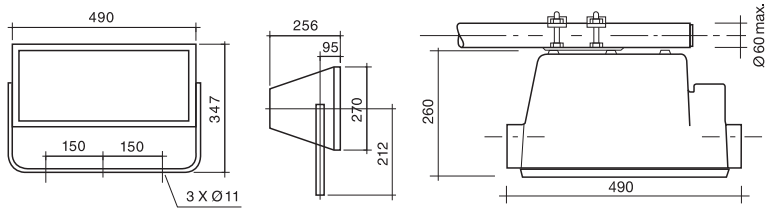
- **Compact, lightweight and robust**
- **Ex e integral juction box: easy connection**
- **Excellent photometric properties, wide or narrow beam**
- **Internationally recognised**
- **Supplied with lamp installed and cable gland**
- **Supplied with offshore grade paint**

Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7
EC TYPE Examination Certificate:
LCIE 00 ATEX 6019X / IECEx LCI 11-0062X
Ex II 2 G
Ex de IIB T1 to T5 Gb for ≤ -20°C to ≤ +60°C
depending on model
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Standard Flat

Pole Mounting

Type*	Mounting	Nominal Rating (W)	Nominal Current (A)	Temperature Class -20°C to +40°C	Temperature Class -20°C to +60°C	Weight (kg)
XSF70P-00000	Flat	1 x 70W HP Sodium	0.4	T4	T3	17
XSF70G-00000	Pole	1 x 70W HP Sodium	0.4	T4	T3	17
XSF150P-00000	Flat	1 x 150W HP Sodium	0.8	T4	T3	17
XSF150G-00000	Pole	1 x 150W HP Sodium	0.8	T4	T3	17
XSF250P-00000	Flat	1 x 250W HP Sodium	1.3	T3	T3	18
XSF250G-00000	Pole	1 x 250W HP Sodium	1.3	T3	T3	18
XSF400P-00000	Flat	1 x 400W HP Sodium	2.1	T3	T2	20
XSF400G-00000	Pole	1 x 400W HP Sodium	2.1	T3	T2	20
XQF250P-00000	Flat	1 x 250W Metal Halide	1.3	T3	T2	20
XQF250G-00000	Pole	1 x 250W Metal Halide	1.3	T3	T3	18
XQF400P-00000	Flat	1 x 400W Metal Halide	2.1	T3	T3	18
XQF400G-00000	Pole	1 x 400W Metal Halide	2.1	T3	T2	20
XEF110P-00000	Flat	2 x 55W Halogen (12V)	9.2	T5	T5	13
XEF110G-00000	Pole	2 x 55W Halogen (12V)	9.2	T5	T5	13
XEF140P-00000	Flat	2 x 70W Halogen (24V)	5.8	T5	T5	13
XEF140G-00000	Pole	2 x 70W Halogen (24V)	5.8	T5	T5	13

**X... F... -0A000 (to complete with nominal rating & mounting) - Narrow beam, for example XQF400P-0A000*

Enclosure
Marine grade aluminium alloy type according to EN1706:EN AC-AlSi7 Mg 0,6 T6
Cataphoretically treated
12mm toughened glass
Rated voltages
Version HPS/metal halide:
Standard: 230V 50Hz ferromagnetic ballast, with capacitor
Option: ferromagnetic ballast
- 220V 60Hz
- 120V 60Hz on few models
Power factor
Up to 0.85 for version with compensated ballast (Sodium HP and metal halide)
Cable entries
Standard: Two entries M20 included
One plug (EXN/M20/HSP) and one cable gland (EXN04MMC2) - Nickel Plated Brass ISO M20 for non-armoured cable, diameter 10-16mm

Terminal block
Up to 6mm² (rigid wire), 4mm² (flexible wire)
Terminal supplies for L, N, PE
Lamps (Installed)
Polished aluminium reflector
Standard: wide beam
Option: narrow beam
Fixing
Standard:galvanised steel flat mounting bracket, yellow polyester paint RAL1003
Pole mounted: Ø 40 to 60mm
Other options
Sling (SC100 ELINGUE)
FC 108 (CLAMP FOR BEAM MOUNTING)
SC100 (SAFETY HARNESS)
SA 103 (Jobsite option)
Galvanised steel support with base plate (SA103)

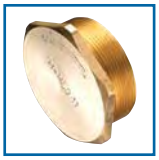
XHM... Pre wired masthead floodlighting systems:
Full system with 2 or 4 floodlights
For example XHM 4400 (4 x 400 W HPS)
(to complete with nominal rating)
Colour (standard)
- X*****-00000 - Yellow offshore, RAL 1003

Colour option
- X*****-B0000 - Grey, RAL 7035
- X*****-C0000 - Black, RAL 9004
- X*****-D0000 - Hammered Blue, RAL 5015
- X*****-F0000 - Red, RAL 3001
- X*****-G0000 - Blue, RAL 5010
- X*****-J0000 - Green, RAL 6032
- X*****-M0000 - White, RAL 9010

Spares & Fixings Accessories see pages 90-95

Related Products


EXL Conduit 148


Stopping Plugs 176


GUV Range 120


Ex e Cable Gland 166

XFB / XFL Range

Warning lights and beacons

Approvals / Characteristics

Ex

Exn Extc

G IIC D IIIC

GROUP II

ZONE 2 ZONE 22

IP 66 IK 10

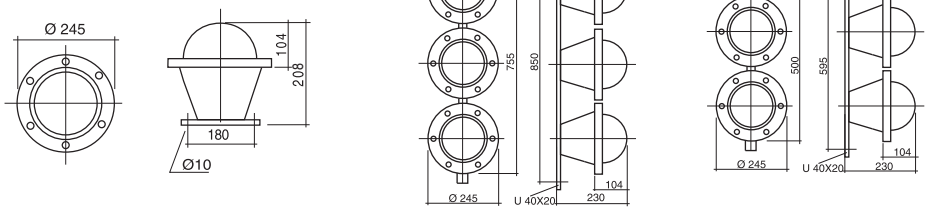
Features

- Lightweight and robust for easy installation
- Static or flashing versions available for use in a variety of applications
- Choice of 5 colours of globe
- 2 or 3 light versions available for traffic signals
- Supplied with single cable gland and lamps installed
- Including accessories (cable gland, plug & lampstand)

Certification & Standards

Approved to: EN60079-0, 60079-15, 60079-31
EC TYPE Examination Certificate:
Ex II 3 G / D
Ex nA IIC T5 Gc
Ex tc IIIC T100°C Dc IP66 for ≤ -20°C to ≤ +60°C

Dimensions



Technical Specifications

Type	Rating (W)	Lamp	Globe Colour*	Version	Rated Voltages	Weight (kg)
XFB30-00000	1 x 28	E27	Red	Halogen	AC 230V 50/60Hz	3.5
XFB70-00000	1 x 8	E27	Red	LED	AC 100-240V 50/60Hz	3.5
XFL30P-00000	30 Joules	Picots	Red	Xenon flash	AC 230V 50/60Hz	4
XFL30P-0C000	30 Joules	Picots	Red	Xenon flash	AC 100V 50/60Hz	4
XFL30P-0D000	30 Joules	Picots	Red	Xenon flash	DC 24V	4
XFL30P-0E000	30 Joules	Picots	Red	Xenon flash	DC 48V	4
XFL30P-0F000	30 Joules	Picots	Red	Xenon flash	DC 110V	4
XFB230-00000	2 x 28	E27	Red / Green	Halogen	AC 230V 50/60Hz	7
XFB270-00000	2 x 8	E27	Red / Green	LED	AC 100-240V 50/60Hz	7
XFL230-00000	2 x 30 Joules	Picots	Red / Green	Xenon Flash	AC 230V 50/60Hz	8
XFL230-0C000	2 x 30 Joules	Picots	Red / Green	Xenon Flash	AC 100V 50/60Hz	8
XFL230-0D000	2 x 30 Joules	Picots	Red / Green	Xenon Flash	DC 24V 50/60Hz	8
XFL230-0E000	2 x 30 Joules	Picots	Red / Green	Xenon Flash	DC 48V 50/60Hz	8
XFL230-0F000	2 x 30 Joules	Picots	Red / Green	Xenon Flash	DC 110V 50/60Hz	8
XFB330-00000	3 x 28	E27	Red / Yellow / Green	Halogen	AC 230V 50/60Hz	10.5
XFB370-00000	3 x 8	E27	Red / Yellow / Green	LED	AC 100-240V 50/60Hz	10.5
XFL330-00000	3 x 30 Joules	Picots	Red / Yellow / Green	Xenon Flash	AC 230V 50/60Hz	12
XFL330-0C000	3 x 30 Joules	Picots	Red / Yellow / Green	Xenon Flash	AC 100V 50/60Hz	12
XFL330-0D000	3 x 30 Joules	Picots	Red / Yellow / Green	Xenon Flash	DC 24V	12
XFL330-0E000	3 x 30 Joules	Picots	Red / Yellow / Green	Xenon Flash	DC 48V	12
XFL330-0F000	3 x 30 Joules	Picots	Red / Yellow / Green	Xenon Flash	DC 110V	12

**Choice of globe colours: XF...-00000 - Red, XF...-000A0 - Transparent globe, XF...-000B0 - Green globe, XF...-000C0 - Orange globe, XF...-000D0 - Blue globe*
***Colour combination: please contact Sales for more information*

Enclosure
Marine grade aluminium alloy type
EN1706 AC-43100KF-AlSi 10Mg
Aluminium reflector
Temperature
Ambient temperature: -20°C to +60°C
Cable entries
Standard: Two entries M20 included
One Nickel Plated Brass plug (EXN/M20/HSP) and one cable gland (EXN04MMC2) - Nickel Plated Brass ISO M20 for non-armoured cable, diameter 10-16mm

Terminal block
Up to 6mm²
Terminals supplied for L, N, PE
Lamps (supplied)
For xenon flash versions
Flashing rate: 45 to 60 - per minute
Globe
Polycarbonate, thickness 3mm

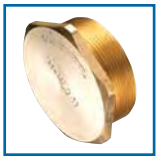
Colour (standard)
- XF****-00000 - Yellow offshore, RAL 1003

Colour options
- XF****-B0000 - Grey, RAL 7035
- XF****-C0000 - Black, RAL 9004
- XF****-D0000 - Hammered Blue, RAL 5015
- XF****-F0000 - Red, RAL 3001
- XF****-G0000 - Blue, RAL 5010
- XF****-J0000 - Green, RAL 6032
- XF****-M0000 - White, RAL 9010

Spares & Fixings Accessories see pages 90-95

Related Products


EXL Conduit 148


Stopping Plugs 176


GUV Range 120


Thread Convertors 170

XDF Range

Drilling fluorescent fitting

Approvals / Characteristics

Features

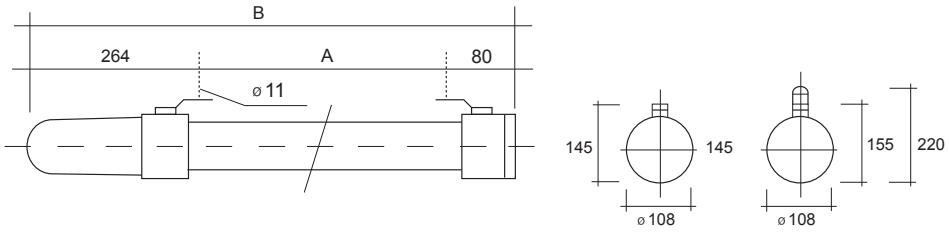
- Vibration resistant lighting system
- Plug in system for fast installation
- Designed to minimise heat build up and overheating
- Corrosion resistant ideal for marine applications
- Hazardous and safe area versions available
- Including accessories (socket, plug, fixation & cable)
- Supplied with offshore grade paint

Certification & Standards

Approved to: EN60079-0, 60079-15
EC TYPE Examination Certificate:
Ex II 3 G / D
Ex nA IIC T4 Gc
Ex tc IIIC T135°C Dc IP6X
Temperature range: -20°C to +60°C

Dimensions

Technical Specifications



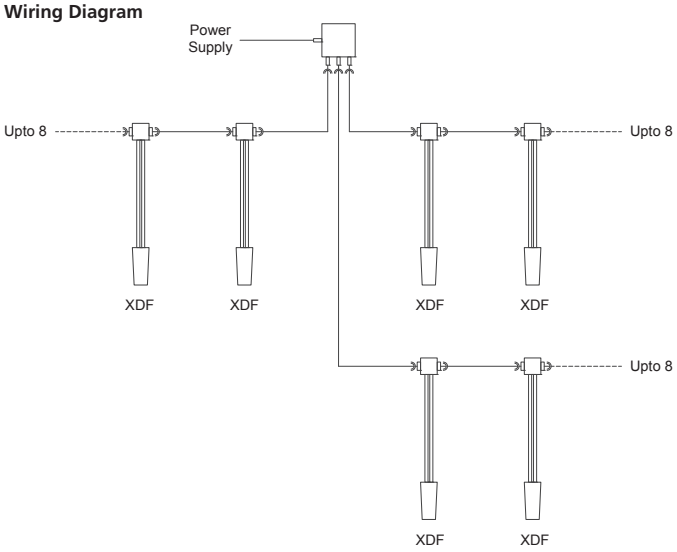
Type	Rated Voltage	Rating (W)	Nominal Current (A)	Diffuser	A	B	Weight (kg)
XDF140-00000	230V 50Hz	1 x 36	0.20	Polycarbonate	1173	1540	8.5
XDF165-00000	230V 50Hz	1 x 58	0.35	Polycarbonate	1474	1841	9
XDF140-0D000	220V 60Hz	1 x 36	0.20	Polycarbonate	1173	1540	8.5
XDF165-0D000	220V 60Hz	1 x 58	0.35	Polycarbonate	1474	1841	9

Enclosure
End caps according to standard:
EN1706:EN AC-AlSi12(Fe) DF or
EN AC-AlSi10Mg(a) DF marine grade aluminium
Including offshore option
Yellow offshore polyurethane paint RAL 1003
UV protected extruded polycarbonate tube, thickness 2.5mm

Rated voltages
Ferromagnetic ballast
Cable entries
Standard: Two M20 cable entries
Supplied with:
One plug entry: male - 2 poles & earth - 10Amp - 250VAC
One socket entry: female - 2 poles & earth - 10 Amp - 250VAC
One extendable cable with male plug and female socket (Helical cable) expandable to 5 metre max

Terminal block (plug in terminal block)
Up to 6mm²
Terminals supplied L, N, PE
Lamps (order separately)
T8 bi-pin G13 tube, Ø 26 - white industry 4000°K
Fixing (included)
2 Brackets for beam clamp fixing
Other options
Other voltage ratings: on request

Wiring Diagram

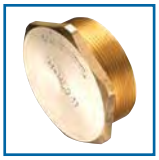


Must be used with XD104R - Junction box
For 3 x 8 = 24 light fitting
Contact Sales for further details

Spares & Fixings Accessories see pages 90-95

Related Products


EXL Conduit 148


Stopping Plugs 176


GUV Range 120

EVS Range

Fluorescent fitting with easy disconnect

Approvals / Characteristics

Features

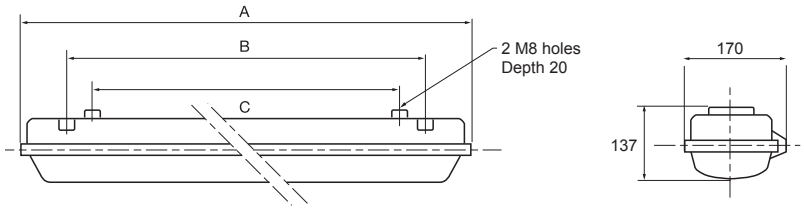
- Easy disconnector for safer maintenance out of zones
- Double central locking for ingress protection
- Main body constructed of a GRP for high impact strength
- Polycarbonate diffuser to resist harsh environments
- Automatic switch off upon opening for safe maintenance
- All components mounted on hinged and removable gear tray which gives easy access for maintenance
- Including accessories (cable gland & fixing brackets)

Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-5, 60079-7, 60079-31
EC TYPE Examination Certificate:
LCIE 11 ATEX 3065X
IEC Ex LCI 11.0053X
Ex II 2 G
Ex de IIC T4 Gb for ≤ -40°C to ≤ +60°C
Ex de IIC T5 Gb for ≤ -40°C to ≤ +35°C
Ex II 2 D
Ex tb IIIC T85°C Db IP6X
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +50°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type*	Wiring Configuration	Rating (W)	Nominal Current (A)	Dimensions (mm) A	B	C	Weight (kg)
EVS120-0000	5 Wire Loop	1 x 18	0.09	785	432	400	5.5
EVS120-D000	5 Wire & Continuity plate	1 x 18	0.09	785	432	400	5.5
EVS140-0000	5 Wire Loop	1 x 36	0.17	1370	900	700	7.5
EVS140-D000	5 Wire & Continuity plate	1 x 36	0.17	1370	900	700	7.5
EVS165-0000	5 Wire Loop	1 x 58	0.26	1670	900	700	9
EVS165-D000	5 Wire & Continuity plate	1 x 58	0.26	1670	900	700	9
EVS220-0000	5 Wire Loop	2 x 18	0.17	785	432	400	6.5
EVS220-D000	5 Wire & Continuity plate	2 x 18	0.17	785	432	400	6.5
EVS240-0000	5 Wire Loop	2 x 36	0.33	1370	900	700	8.5
EVS240-D000	5 Wire & Continuity plate	2 x 36	0.33	1370	900	700	8.5
EVS265-0000	5 Wire Loop	2 x 58	0.5	1670	900	700	10
EVS265-D000	5 Wire & Continuity plate	2 x 58	0.5	1670	900	700	10

**(Through options)* *Define type rating: EVS...-B000 5 wires through (to complete with nominal rating), EVS...-E000 5 wires through & 2 continuity plates (to complete with nominal rating)*

Enclosure
Fiberglass reinforced polyester body
Polycarbonate diffuser, treated against UV
Fixing
Standard: V015 - 2 Zinc Plated Steel brackets for ceiling mounting

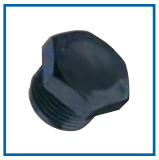
Rated voltages
Standard: electronic ballast
AC/DC 220-240V, 50/60Hz
Contact Sales Office for other voltage options
Power factor
Up to 0.98
Cable entries
Standard: Three M20 entries included
Two M20 Nylon plugs (EX-M20)
One cable gland (EXCGM20S) - ISO M20 Nylon for non-armoured cable, diameter 6-12mm
For armoured cable - continuity plate option: Nickel Plated Brass cable gland (EXN04MMC1), diameter 6-12 / 8.5-16mm (1 or 2 according to number of plates)

Terminal block
Up to 4mm² (rigid wire), 2.5mm² (flexible wire)
Wiring L1, L2, L3, N, PE (5 wires)
5 wires through option: I max = 16 A max.
Lamps (order separately)
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

EVN Range

Fluorescent fitting with diffuser

Approvals / Characteristics

Ex

Exn | Extc

G IIC | D IIIC

GROUP II

ZONE 2 | ZONE 22

IP 66 | IK 09

Features

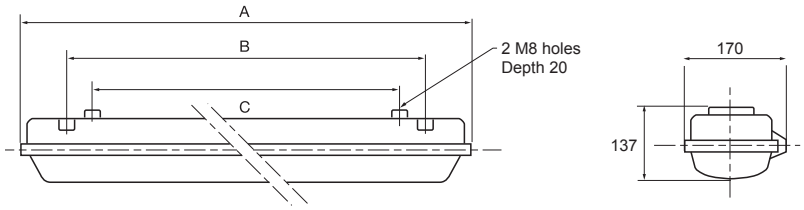
- Double central locking for ingress protection
- Main body constructed of a GRP for high impact strength
- Polycarbonate diffuser to resist harsh and corrosive environments
- All components mounted on hinged and removable gear tray which gives easy access for installation and maintenenace
- Including accessories (cable gland & fixing brackets)
- Option: automatic switch off on opening

Certification & Standards

Approved to: EN60079-0, 60079-15, EN60079-31
EC TYPE Examination Certificate: Under new 94/9/EC self certified
Ex II 3 G
Ex nr IIC T4 Gb for ≤ -40°C to ≤ +60°C
Ex nr IIC T5 Gb for ≤ -40°C to ≤ +35°C
Ex II 3 D
Ex tc IIIC T85°C Db IP66
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +50°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type*	Wiring Configuration	Rating (W)	Nominal Current (A)	Dimensions (mm) A	B	C	Weight (kg)
EVN120-0000	5 Wire Loop	1 x 18	0.17	785	432	400	4.2
EVN120-D000	5 Wire & Continuity plate	1 x 18	0.17	785	432	400	4.2
EVN140-0000	5 Wire Loop	1 x 36	0.17	1370	900	700	6.5
EVN140-D000	5 Wire & Continuity plate	1 x 36	0.17	1370	900	700	6.5
EVN165-0000	5 Wire Loop	1 x 58	0.26	1670	900	700	8
EVN165-D000	5 Wire & Continuity plate	1 x 58	0.26	1670	900	700	8
EVN220-0000	5 Wire Loop	2 x 18	0.17	785	432	400	4.5
EVN220-D000	5 Wire & Continuity plate	2 x 18	0.17	785	432	400	4.5
EVN240-0000	5 Wire Loop	2 x 36	0.33	1370	900	700	6.8
EVN240-D000	5 Wire & Continuity plate	2 x 36	0.33	1370	900	700	6.8
EVN265-0000	5 Wire Loop	2 x 58	0.5	1670	900	700	8.5
EVN265-D000	5 Wire & Continuity plate	2 x 58	0.5	1670	900	700	8.5

**(Through options)* *Define type rating: EVN...-B000 5 wires through (to complete with nominal rating), EVN...-E000 5 wires through & 2 continuity plates (to complete with nominal rating)*

Enclosure
Fiberglass reinforced polyester body
Polycarbonate diffuser, treated against UV
Fixing
Standard: V015 - 2 Zinc Plated Steel brackets for ceiling mounting

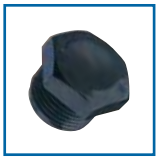
Rated voltages
Standard: electronic ballast
AC/DC 110-260V, 50-60Hz
Contact Sales Office for other voltage options
Power factor
Up to 0.98
Cable entries
Standard: Three M20 entries included
Two M20 Nylon plugs (EX-M20)
One cable gland (EXCGM20S) - ISO M20 Nylon for non-armoured cable, diameter 6-12mm
For armoured cable - continuity plate option: Nickel Plated Brass cable gland (EXN04MMC1), diameter 6-12 / 8.5-16mm (1 or 2 according to number of plates)

Terminal block
Up to 6mm² (rigid wire), 4mm² (flexible wire)
Wiring L1, L2, L3, N, PE (5 wires)
5 wire through option: I max 16 A
Lamps (order separately)
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

EVD Range

Fluorescent fitting - developed for dust environment

Approvals / Characteristics

Ext

D IIIC

GROUP II

ZONE 21 ZONE 22

IP 66 IK 09

Features

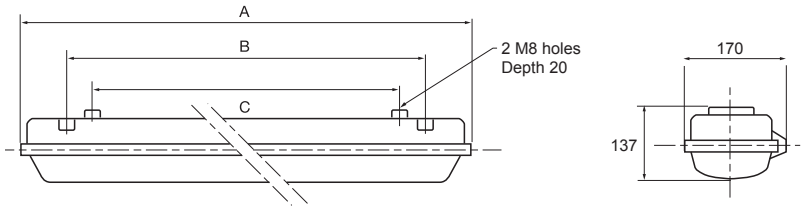
- Double central locking for ingress protection
- Main body constructed of a GRP for high impact strength
- Polycarbonate diffuser to resist harsh and corrosive environments
- All components mounted on hinged and removable gear tray which gives easy access for installation and maintenance
- Including accessories (cable gland & fixing brackets)
- Option: automatic switch off on opening

Certification & Standards

Approved to: EN60079-0, 60079-31
EC TYPE Examination Certificate:
LCIE II ATEX 3092X
IECEx LCI 11.0064X
Ex II 2 D
Ex t IIIC T82°C (≤ +60°C) Db
Ex t IIIC T62°C (≤ +40°C) Db
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +50°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type*	Wiring Configuration	Rating (W)	Nominal Current (A)	Dimensions (mm) A	B	C	Weight (kg)
EVD120-00J0	5 Wire Loop	1 x 18	0.09	785	432	400	4.2
EVD120-D0J0	5 Wire & Continuity plate	1 x 18	0.09	785	432	400	4.2
EVD140-00J0	5 Wire Loop	1 x 36	0.17	1370	900	700	6.5
EVD140-D0J0	5 Wire & Continuity plate	1 x 36	0.17	1370	900	700	6.5
EVD165-00J0	5 Wire Loop	1 x 58	0.26	1670	900	700	8
EVD165-D0J0	5 Wire & Continuity plate	1 x 58	0.26	1670	900	700	8
EVD220-00J0	5 Wire Loop	2 x 18	0.17	785	432	400	4.5
EVD220-D0J0	5 Wire & Continuity plate	2 x 18	0.17	785	432	400	4.5
EVD240-00J0	5 Wire Loop	2 x 36	0.33	1370	900	700	6.8
EVD240-D0J0	5 Wire & Continuity plate	2 x 36	0.33	1370	900	700	6.8
EVD265-00J0	5 Wire Loop	2 x 58	0.5	1670	900	700	8.5
EVD265-D0J0	5 Wire & Continuity plate	2 x 58	0.5	1670	900	700	8.5

**(Through options)* *EVD...-B0J0 - 5 Wires through (to complete with rating)*
EVD...-E0J0 - 5 wires through & 2 continuity plates (to complete with rating)
EVD...-.0C0 - Automatic switch off on opening including electronic ballast (to complete with rating & wiring configuration)

Enclosure
Fiberglass reinforced polyester body
Polycarbonate diffuser, treated against UV
Fixing
Standard: V015 - 2 Zinc Plated Steel brackets for ceiling mounting

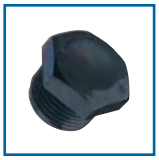
Rated voltages
Standard: electronic ballast
AC/DC 110-260V, 50-60Hz
Contact Sales Office for other voltage options
Power factor
Up to 0.98
Cable entries
Standard: Three M20 cable entries included
Two M20 Nylon plugs and
One cable gland (EXCGM20S) - ISO M20 Nylon for non-armoured cable, diameter 6-12mm
For armoured cable - continuity plate option:
Nickel Plated Brass cable gland (EXN04MMC1), diameter 6-12 / 8.5-16m (1 or 2 according to number of plates)

Terminal block
Up to 6mm² (rigid wire), 4mm² (flexible wire)
Terminals supplied for L1, L2, L3, N, PE
5 wires through option: I max 16 A
Lamps (order separately)
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

ESB Range

Recessed fluorescent fitting

Approvals / Characteristics

Ex

Exde

G IIC

GROUP II

ZONE 1 ZONE 2

IK 08

Features

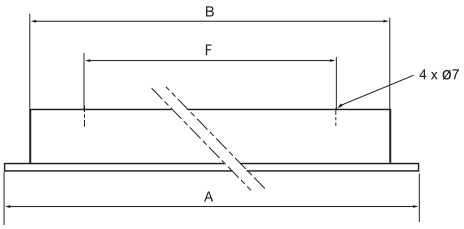
- Main body made from powder coated steel
- 6mm toughened glass making it perfect for laboratories
- Automatic switch off upon opening for safe maintenance
- Including accessories (cable gland)

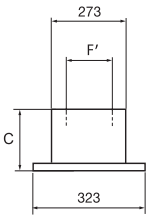
Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7
EC TYPE Examination Certificate: Under 94/9/EC
INERIS II ATEX 0058X
Ex II 2 G
Ex de IIC T4 Gb for ≤ -20°C to ≤ +40°C
Glow wire test: 850°C EN60598-2-22
Safe operating temperature range: -20°C to +40°C
IP test: IP64 IEC 60529 (2001)

Dimensions

Technical Specifications





Type	Wiring Configuration	Rating (W)	Nominal Current (A)	Glass	Dimensions (mm) A	B	C	F x F'	Weight (kg)
ESB220-0000	5 Wire	2 x 18	0.17	Toughened	753	702	105	400 x 240	12.5
ESB220-A000	5 Wire	2 x 18	0.17	Frosted	753	702	105	400 x 240	12.5
ESB240-0000	5 Wire	2 x 36	0.33	Toughened	1364	1312	105	1000 x 240	20
ESB240-A000	5 Wire	2 x 36	0.33	Frosted	1364	1312	105	1000 x 240	20
ESB265-0000	5 Wire	2 x 58	0.5	Toughened	1664	1612	105	1300 x 240	25
ESB265-A000	5 Wire	2 x 58	0.5	Frosted	1664	1612	105	1300 x 240	25

Enclosure
Steel housing and body painted in white polyester powderpaint RAL 9016
6mm clear toughened glass panel (optional frosted low lumen output)
Neoprene gasket

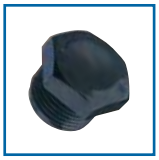
Rated voltages
Standard: electronic ballast
AC/DC 220-240V, 50-60Hz
Contact sales office for other voltages
Power factor
Up to 0.98
Cable entries
Two M20 cable entries included
One M20 Nylon stopping plug and
One cable gland (EXCGM20S) - ISO M20 Nylon for non-armoured cable, diameter 6-12mm
One M20 Nylon stopping plug (EX-M20)

Terminal block
Up to 4mm² (rigid wire), 2.5mm² (flexible wire)
Terminals supplied for L1, L2, L3, N, PE
Lamps (order separately)
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k
Fixing
Fixing by 4 M6 threaded bolts (not supplied) joined to the main body

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

XFF-EM Range

Emergency tubular fluorescent fitting

Approvals / Characteristics

Ex

Exd Extb

G IIB G IIC D IIIC

GROUP II

ZONE 1 ZONE 2 ZONE 21 ZONE 22

IP66 IK09 Polycarbonate Version

IP66 IK07 Glass Version

Features

- Manufactured from marine grade aluminium
- Supplied with offshore grade paint
- All components mounted on the gear tray for easy installation and maintenance
- Standard components used inside the body allowing reduced maintenance costs
- Available in polycarbonate (light, high impact resistant) or in glass (specific chemical environment & paint shop)
- Battery duration 2 hours
- Including accessories (cable gland & fixing brackets)

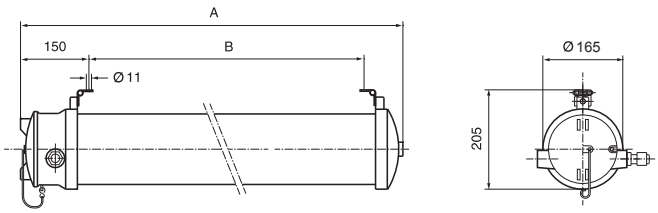
Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-31
EC TYPE Examination Certificate:
INERIS 11 ATEX 0051X
Ex II 2 G
Ex d IIC T6 Gb for ≤ -20°C to ≤ +55°C (All Polycarbonate tubes)
Ex d IIC T6 Gb for ≤ -20°C to ≤ +55°C (Glass tubes)
Ex d IIB T6 Gb for ≤ -20°C to ≤ +55°C (Glass versions - XFR140EM and XFF240EM)
Ex II 2 D
Ex tb IIIC T80°C Db IP66
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -10°C to +40°C

The fixture is supplied with non-barrier cable glands. For installations in either Zone 1 or in the presence of Group IIC gases, barrier glands are required. Please refer to EN-60079-14

Dimensions

Technical Specifications



Type	Wiring Configuration	Rating (W)	Battery	Diffuser	Dimensions (mm) A	B	Weight (kg)
XFR120EM-0G000	3 Wire	1 x 18	2h	Polycarbonate	780	565	7.5
XFR140EM-0G000	3 Wire	1 x 36	2h	Polycarbonate	1385	1170	9.5
XFF220EM-0G000	3 Wire	2 x 18	2h	Polycarbonate	780	565	7.5
XFF240EM-0G000	3 Wire	2 x 36	2h	Polycarbonate	1385	1170	9.5
XFR120VEM-0G000	3 Wire	1 x 18	2h	Glass	780	565	9.5
XFR140VEM-0G000	3 Wire	1 x 36	2h	Glass	1385	1170	9.5
XFF220VEM-0G000	3 Wire	2 x 18	2h	Glass	780	565	9.5
XFF240VEM-0G000	3 Wire	2 x 36	2h	Glass	1385	1170	9.5

Enclosure
End caps and cover in marine grade aluminium alloy type EN 1706 EN AC-AlSi12(Fe) DF or EN AC-AlSi10 Mg(a) DF
Yellow offshore polyurethane paint RAL 1003
UV protected extruded polycarbonate tube, thickness 2.5mm
Borosilicate glass, thickness 7mm
Fixing
Standard: D023 - 2 Zinc Plated Steel articulated brackets for ceiling mounting

For wiring, please refer to the instruction manual (drawings)
Technical assistance on request

Rated voltages
Electronic ballast:
XFF/XFR: AC/DC 220-240V, 50-60Hz
Power factor
Up to 0.98
Cable entries
Standard: Two entries 3/4" NPT included
One 3/4" Nickel Plated Brass plug (EXN/075/SP)
One cable gland (EXN05AMC3)- 3/4" NPT Nickel Plated Brass for non-armoured cable, diameter 12-16mm
Battery
Lumen output in emergency mode (1 tube lit)
40% for 18W
33% for 40W
Terminal block (plug in terminal block)
Up to 10mm² (rigid wire), 6mm² (flexible wire)
Supplied L1, 2, N, PE Terminals
Looping possible with additional cable gland
Select function: Lighting in maintained mode or lighting in non-maintained mode

Lamps (order separately)
T8 bi-pin G13 tube, Ø 26 - white industry 4000°K (order separately)
T5 bi-pin 65 supplied with XEL
Other options
Stainless steel shockproof kit 304L
Colour (standard)
- X*****-0G000 - Yellow offshore, RAL 1003

Colour options
- X*****-BG000 - Grey, RAL 7035
- X*****-CG000 - Black, RAL 9004
- X*****-DG000 - Hammered Blue, RAL 5015
- X*****-FG000 - Red, RAL 3001
- X*****-GG000 - Blue, RAL 5010
- X*****-JG000 - Green, RAL 6032
- X*****-MG000 - White, RAL 9010

Spares & Fixings Accessories see pages 90-95

Related Products


EXL Conduit 148


Stopping Plugs 174


GUV Range 120


Ex d Cable Gland 162

XFP-EM Range

Emergency tubular fluorescent fitting with automatic switch off

Approvals / Characteristics

Ex

Exde | Extb

G IIB | G IIC | D IIIC

GROUP II

ZONE 1 | ZONE 2 | ZONE 21 | ZONE 22

IP66 | IK09 — Polycarbonate Version

IP66 | IK07 — Glass Version

Features

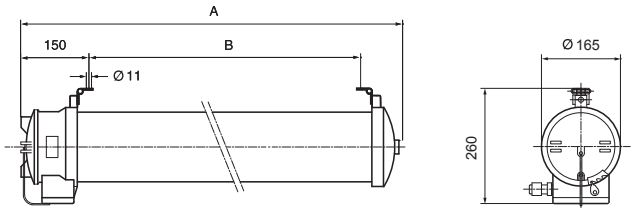
- Manufactured from marine grade aluminium
- Supplied with offshore grade paint
- Maintenance in hazardous area is quick and easy with isolation switch for safe maintenance
- All components mounted on the gear tray for easy installation and maintenance
- Standard components used inside the body allowing reduced maintenance costs
- Available in polycarbonate (light, high impact resistant) or in glass (specific chemical environment & paint shop)
- Battery duration 2 hours
- Including accessories (cable gland & fixing brackets)

Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7, 60079-31
EC TYPE Examination Certificate:
INERIS 11 ATEX 0052X
Ex II 2 G
Ex de IIC T6 Gb for ≤ -20°C to ≤ +55°C (All Polycarbonate tubes)
Ex de IIC T6 Gb for ≤ -20°C to ≤ +55°C (Glass tubes)
Ex de IIB T6 Gb for ≤ -20°C to ≤ +55°C (Glass versions - XFP140EM and XFP240EM)
Ex II 2 D
Ex tb IIIC T80°C Db IP66
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -10°C to +40°C

Dimensions

Technical Specifications



Type	Wiring Configuration	Rating (W)	Battery	Diffuser	Dimensions (mm) A	B	Weight (kg)
XFP120EM-0G000	3 Wire	1 x 18	2h	Polycarbonate	780	565	7.5
XFP140EM-0G000	3 Wire	1 x 36	2h	Polycarbonate	1385	1170	9.5
XFP220EM-0G000	3 Wire	2 x 18	2h	Polycarbonate	780	565	7.5
XFP240EM-0G000	3 Wire	2 x 36	2h	Polycarbonate	1385	1170	9.5
XFP120VEM-0G000	3 Wire	1 x 18	2h	Glass	780	565	9.5
XFP140VEM-0G000	3 Wire	1 x 36	2h	Glass	1385	1170	11
XFP220VEM-0G000	3 Wire	2 x 18	2h	Glass	780	565	9.5
XFP240VEM-0G000	3 Wire	2 x 36	2h	Glass	1385	1170	11

Enclosure
End caps and cover in marine grade aluminium alloy type EN1706:EN AC-AlSi12(Fe) DF or EN AC-AlSi10 Mg(a) DF
UV protected extruded polycarbonate tube, thickness 2.5mm
Borosilicate glass, thickness 7mm
Fixing
Standard: D023 - 2 Zinc Plated Steel articulated brackets for ceiling mounting

For wiring, please refer to the instruction manual (drawings)
Technical assistance on request

Rated voltages
Standard: electronic ballast:
AC/DC 220-240V, 50-60Hz
Power factor
Up to 0.98
Cable entries
Standard M20 cable entry included
One cable gland (EXN04MMC2) - Nickel Plated Brass M20 for non-armoured cable, diameter 10-16mm
Battery
Lumen output in emergency mode (1 tube lit)
40% for 18W
33% for 33W
Monitored by one LED

Terminal block (plug in terminal block)
Up to 6mm² (rigid wire), 4mm² (flexible wire)
Supplied L1, 2, N, PE Terminals
Select function: Lighting in maintained mode or lighting in non-maintained mode
Lamps (order separately)
T8 bi-pin G13 tube, Ø 26 - white industry 4000°K
Other options
Stainless steel shockproof kit 304L
Colour (standard)
- XFP***-0G000 - Yellow offshore, RAL 1003

Colour options
- XFP***-BG000 - Grey, RAL 7035
- XFP***-CG000 - Black, RAL 9004
- XFP***-DG000 - Hammered Blue, RAL 5015
- XFP***-FG000 - Red, RAL 3001
- XFP***-GG000 - Blue, RAL 5010
- XFP***-JG000 - Green, RAL 6032
- XFP***-MG000 - White, RAL 9010

Spares & Fixings Accessories see pages 90-95

Related Products


EFDC Range 122


Stopping Plugs 174


GUV Range 120


Ex e Cable Gland 164

Part No. B019T

XEL-BAES Range

Self-contained emergency lighting fitting

Approvals / Characteristics

Ex

Exd Exde Extb

G IIC D IIIC

GROUP II

ZONE 1 ZONE 2 ZONE 21 ZONE 22

IP 66 IK 09 Polycarbonate Version

IP 66 IK 07 Glass Version

Features

- Manufactured from marine grade aluminium
- Supplied with offshore grade paint
- All components mounted on the gear tray for easy installation and maintenance
- Self contained luminaires with built in automatic facility to give local indication of result, test or control monitoring
- Available in polycarbonate (light, high impact resistant) or in glass (specific chemical environment & paint shop)
- Battery duration 2 hours
- Including accessories (cable gland & fixing brackets)

Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7, 60079-31, 60598-2-22

EC TYPE Examination Certificate:

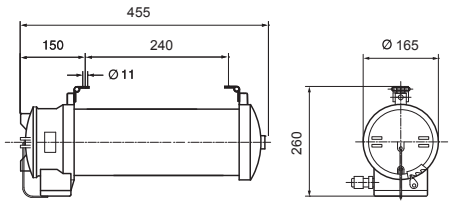
Models SI & AI	Models A & AK
INERIS II ATEX 0052X	INERIS II ATEX 0051X
Ex II 2 G	Ex II 2 G
Ex de IIC T6 Gb	Ex d IIC T6 Gb
Ex II 2 D	Ex II 2 D
Ex tb IIIC T80°C IP66 Db	Ex tb IIIC T80°C IP66 Db

Glow wire test: 960°C EN60598-2-22

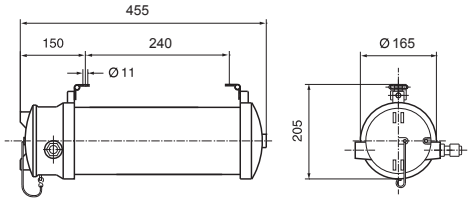
Safe operating temperature range: -20°C to +55°C

The fixture is supplied with non-barrier cable glands. For installations in either Zone 1 or in the presence of Group IIC gases, barrier glands are required. Please refer to EN-60079-14

Dimensions



SI & AI



A & AK

Technical Specifications

				Testing Type			Switch Type (see diagrams)			
Type	Function	Rating (W)	Diffuser	Manual	Automatic	Addressable	Unswitched	Switch Off	Combined	Weight (kg)
XEL3001-00000	Large area	1 x 8	Polycarbonate	●	–	–	●	–	–	5
XEL3002-00000*	Large area	2 x 8	Polycarbonate	●	–	–	●	–	–	5
XEL80A-00000	Escape route	1 x 6	Polycarbonate	–	●	–	●	–	–	4.7
XEL80AK-00000	Escape route	1 x 6	Polycarbonate	–	●	–	–	●	–	4.7
XEL80AI-00000	Escape route	1 x 6	Polycarbonate	–	●	–	–	–	●	5.5
XEL80SI-00000	Escape route	1 x 6	Polycarbonate	–	–	●	–	–	●	5.5
XEL300A-00000	Large area	1 x 8	Polycarbonate	–	●	–	●	–	–	5
XEL300AK-00000	Large area	1 x 8	Polycarbonate	–	●	–	–	●	–	5
XEL300AI-00000	Large area	1 x 8	Polycarbonate	–	●	–	–	–	●	5.5
XEL300SI-00000	Large area	1 x 8	Polycarbonate	–	–	●	–	–	●	5.5
XEL3001V-00000	Large area	1 x 8	Glass	●	–	–	●	–	–	7
XEL3002V-00000*	Large area	2 x 8	Glass	●	–	–	●	–	–	7
XEL80VA-00000	Escape route	1 x 6	Glass	–	●	–	●	–	–	6.5
XEL80VAK-00000	Escape route	1 x 6	Glass	–	●	–	–	●	–	6.5
XEL80VAI-00000	Escape route	1 x 6	Glass	–	●	–	–	–	●	7.3
XEL80VSI-00000	Escape route	1 x 6	Glass	–	–	●	–	–	●	7.3
XEL300VA-00000	Large area	1 x 8	Glass	–	●	–	●	–	–	7
XEL300VAK-00000	Large area	1 x 8	Glass	–	●	–	–	●	–	7
XEL300VAI-00000	Large area	1 x 8	Glass		●	–	–	–	●	7.5
XEL300VSI-00000	Large area	1 x 8	Glass	–	–	●	–	–	●	7.5

Light always on

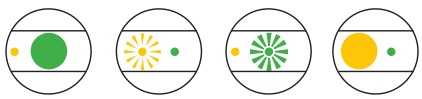
Enclosure
End caps and cover in marine grade aluminium alloy type AS10GY30. Yellow offshore polyurethane paint RAL 1003
UV protected extruded polycarbonate tube, thickness 2.5mm
Borosilicate glass, thickness 7mm

Rated voltages and emergency function
Electronic ballast: AC/DC 230V, 50Hz

Power factor
Up to 0.98

Cable entries
Model SI & AI: One M20 cable entry included
One cable gland (EXN04MMC2) - Nickel Plated Brass ISO M20 for non-armoured cable, diameter 10-16mm
Model A & AK: Two entries 3/4" NPT included
One 3/4" Nickel Plated Brass plug (EXN/075/SP)
One cable gland (EXN05AMC3) - 3/4" NPT Nickel Plated Brass for non-armoured cable, diameter 12-16mm

Self test SATI
Safety lighting with automatic built in systems test the lamps every 7 days and the battery pack every 12 weeks. Results of the test are displayed by yellow and green diodes.



Healthy | Emergency or Indicator Lamp Fault | Test in Progress | Fault

Battery
XEL80: Lumen output for 1 hour = 70lm,
XEL300: Lumen output for 1 hour = 280lm
Model XEL 3001 and XEL 3002 - 3 hour models available for markets outside of France and are not NFC approved

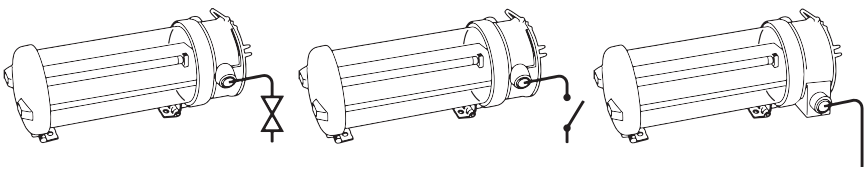
Terminal block
Terminals supplied for L, N, PE
Model A & AK: Up to 10mm² (rigid wire), 6mm² (flexible wire)
Terminals supplied for L, N, PE (looping possible with additional cable glands)

Lamps (supplied installed)
XEL 80: emergency lamp: 1 x 6W tube with G5 lampholder (70 lumen), 2 charge lamp using LEDs
XEL 300: emergency lamp: 1 x 8W tube with G5 lampholder (280 lumen), 2 charge lamp using LEDs

Fixing
Standard: D023 - 2 Zinc Plated Steel articulated brackets for ceiling mounting

Colour (standard)
- XEL***-00000 - Yellow offshore, RAL 1003

Colour options
- XEL***-B0000 - Grey, RAL 7035
- XEL***-C0000 - Black, RAL 9004
- XEL***-D0000 - Hammered Blue, RAL 5015
- XEL***-F0000 - Red, RAL 3001
- XEL***-G0000 - Blue, RAL 5010
- XEL***-J0000 - Green, RAL 6032
- XEL***-M0000 - White, RAL 9010



UNSWITCHED enclosure
Compulsary power socket
Fitting has to be removed
Maintenance must be done in safe area

Enclosure with battery SWITCH OFF
No power socket
External cut-out required
Maintenance done in hazardous area

Enclosure with COMBINED battery and supply switch off
No power socket
No external cut-out
Maintenance done in hazardous area

XEL-BAES Range

Remote control units for emergency lighting

Provided by our sister company **KAUFEL**

Regulations

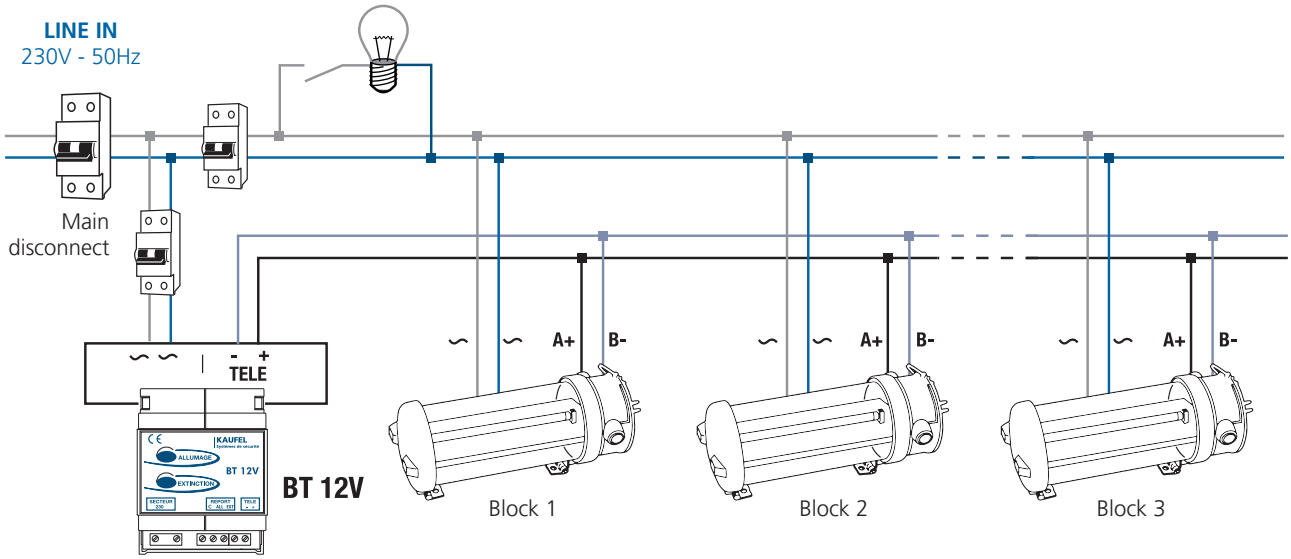
Article EC 12 paragrah 6

Self-contained emergency lighting installations must possess one or several devices allowing centralised control. The devices most be located close to the master control unit or one sub-division control units.

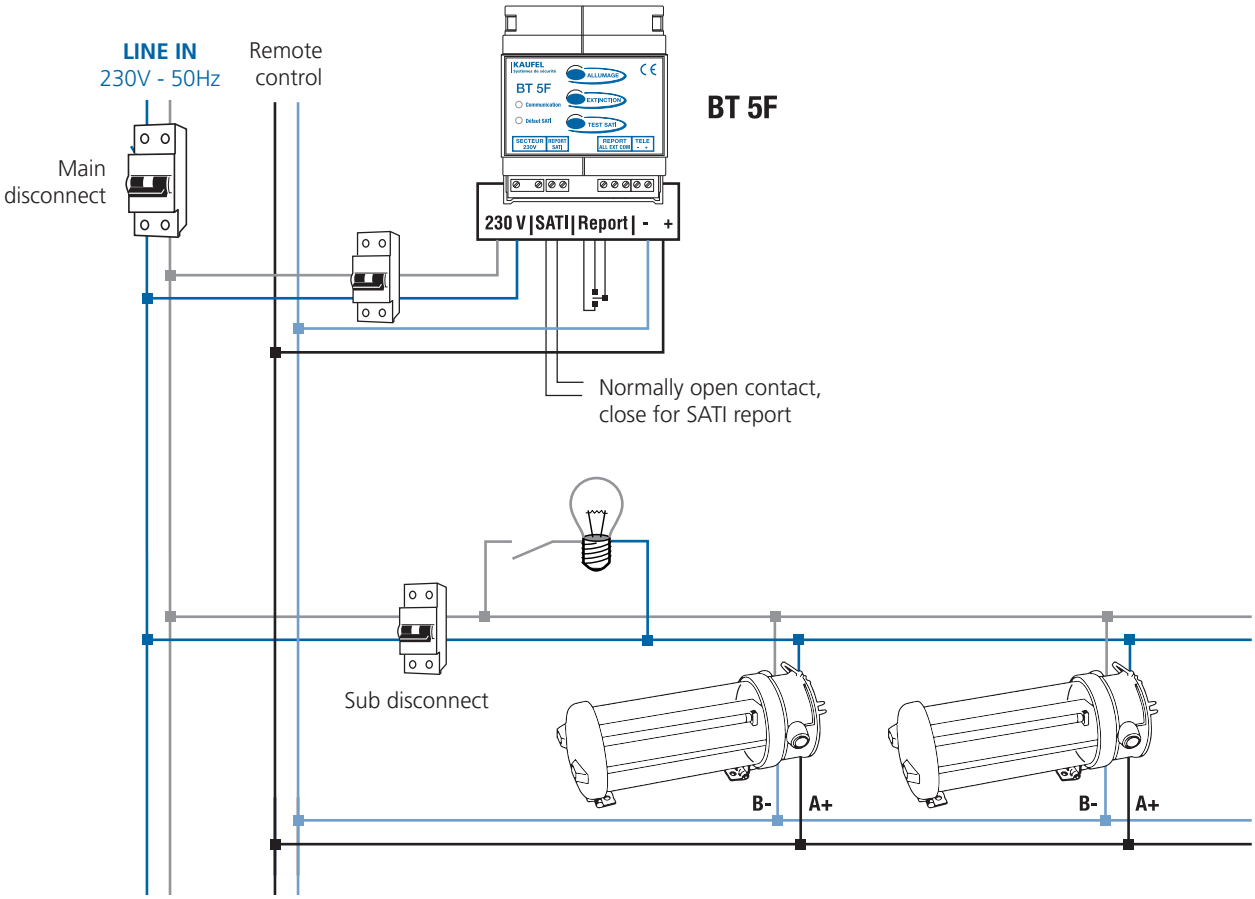
Technical Specifications

Type	Power Supply	Main Feature	Testing Type	Size (mm)
BT5F 621500	230V - 50-60Hz	Multi-brand compatibility ON / OFF offset	Unswitched - Switch off - combined	82 x 70 x 70
BT12V 621201	230V - 50-60Hz	Standard ON / OFF	Unswitched - Switch off - combined	82 x 70 x 70

Standard Remote Control installation (BAES)



Remote Control installation with integrated self testing capabilities (SATI)



EVS-EM Range

Emergency fluorescent fitting with easy disconnect

Approvals / Characteristics

Features

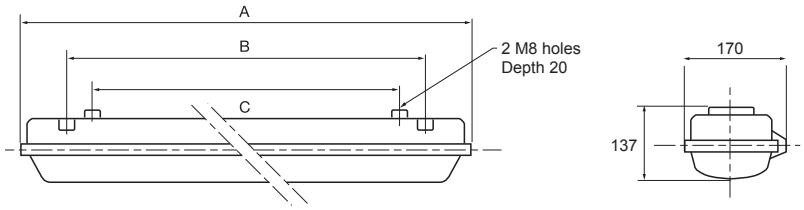
- Easy disconnector for safer maintenance out of zones
- Double central locking for ingress protection
- Main body constructed of a GRP for high impact strength
- Battery duration 2 hours
- All components mounted on hinged and removable gear tray which gives easy access for installation and maintenance
- Automatic switch off on opening for safe maintenance
- Including accessories (cable gland & fixing brackets)

Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-5, 60079-7, EN61241-1
EC TYPE Examination Certificate:
LCIE 11 ATEX 3065X
IEC Ex LCI 11.0053X
Ex II 2 G
Ex de IIC T4 Gb for ≤ -40°C to ≤ +60°C
Ex de IIC T5 Gb for ≤ -40°C to ≤ +35°C
Ex II 2 D
Ex tb IIIC T85°C Db IP6X
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -10°C to +40°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type	Wiring Configuration	Rating (W)	Battery	Nominal Current (A)	Dimensions (mm) A	B	C	Weight (kg)
EVS120EME-0000*	3 Wire	1 x 18	2h	0.09	785	432	400	7.5
EVS120EME-C000*	3 Wire & Continuity plate	1 x 18	2h	0.09	785	432	400	7.5
EVS140EM-0000	3 Wire	1 x 36	2h	0.17	1370	900	700	9.5
EVS140EM-C000	3 Wire & Continuity plate	1 x 36	2h	0.17	1370	900	700	9.5
EVS220EME-0000*	3 Wire	2 x 18	2h	0.17	785	432	400	8.5
EVS220EME-C000*	3 Wire & Continuity plate	2 x 18	2h	0.17	785	432	400	8.5
EVS240EM-0000	3 Wire	2 x 36	2h	0.33	1370	900	700	10.5
EVS240EM-C000	3 Wire & Continuity plate	2 x 36	2h	0.33	1370	900	700	10.5

**Easy disconnect not available*

Enclosure
Fiberglass reinforced polyester body
Polycarbonate diffuser, treated against UV
Standard: V015 - 2 Zinc Plated Steel brackets for ceiling mounting

For wiring, please refer to the instruction manual (drawings)
Technical assistance on request

Rated voltages
Standard: electronic ballast
AC/DC 220-240V, 50-60Hz
For other voltages contact Sales

Battery
Ni-Cd 7.2V 4Ah battery in flameproof case
Auto cut out of defective light
Lumen output in emergency mode (1 tube lit): 40% at 18W, 33% at 36W
Battery duration: 18W = 2 hours, 36W = 2hours
Monitored by one LED
Operating in maintained mode (when the main supply is connected: the tubes are lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge), or in non-maintained mode (when the main supply is connected: the tubes are not lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge)

Power factor
Up to 0.98

Cable entries
Standard: Three M20 cable entries included
Two M20 Nylon plugs (EX-M20)
One cable gland (EXCGM20S) - M20 Nylon for non-armoured cable, diameter 6-12mm
For armoured cable - continuity plate option: Nickel Plated Brass cable gland (EXN04MMC1), diameter 6-12 / 8.5-16mm (1 or 2 according to number of plates)

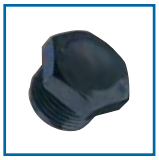
Terminal block
Up to 4mm² (rigid wire), 2.5mm² (flexible wire)
Select function: Lighting in maintained mode or lighting in non-maintained mode
Supplied L1, N, PE, 1, 2 Terminals

Lamps (order separately)
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

EVS-EMA Range

Emergency fluorescent fitting with automatic test, and "BlackStart" capabilities

Approvals / Characteristics

Exde
Extb
G IIC
D IIIC
GROUP II
ZONE 1
ZONE 2
ZONE 21
ZONE 22
IP 66
IK 09

Features

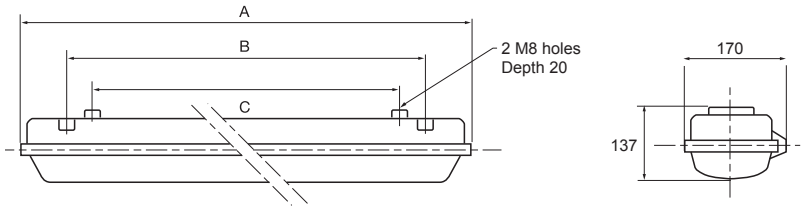
- Double central locking for ingress protection
- Main body constructed of a GRP for high impact strength
- Polycarbonate diffuser to resist harsh and corrosive environments
- All components mounted on hinged and removable gear tray
- Battery duration 3 hours
- Automatic testing for preventive maintenance
- Clear LED for visual inspection
- Automatic switch off on opening for safe maintenance
- Possibility using the emergency inhibit mode
- Including accessories (cable gland & fixing brackets)

Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-5, 60079-7, EN60079-31
EC TYPE Examination Certificate:
LCIE 11 ATEX 3065X
IEC Ex LCI 11.0053X
Ex II 2 G
Ex de IIC T4 Gb for ≤ -40°C to ≤ +60°C
Ex de IIC T5 Gb for ≤ -40°C to ≤ +35°C
Ex II 2 D
Ex tb IIIC T85°C Db IP6X
Glow wire test: 960°C EN605988-2-22
Safe operating temperature range: -10°C to +40°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type*	Wiring Configuration	Rating (W)	Battery	Nominal Current (A)	Dimensions (mm) A	B	C	Weight (kg)
EVS120EMA-0000	3 / 5 Wire Loop	1 x 18	3h	0.09	785	432	400	7.5
EVS120EMA-D000	3 / 5 Wire & Continuity plate	1 x 18	3h	0.09	785	432	400	7.5
EVS140EMA-0000	3 / 5 Wire Loop	1 x 36	3h	0.17	1370	900	700	9.5
EVS140EMA-D000	3 / 5 Wire & Continuity plate	1 x 36	3h	0.17	1370	900	700	9.5
EVS220EMA-0000	3 / 5 Wire Loop	2 x 18	3h	0.17	785	432	400	8.5
EVS220EMA-D000	3 / 5 Wire & Continuity plate	2 x 18	3h	0.17	785	432	400	8.5
EVS240EMA-0000	3 / 5 Wire Loop	2 x 36	3h	0.33	1370	900	700	10.5
EVS240EMA-D000	3 / 5 Wire & Continuity plate	2 x 36	3h	0.33	1370	900	700	10.5

**Note: terminal blocks accept either 3 or 5 wire configurations (see instruction manual)*

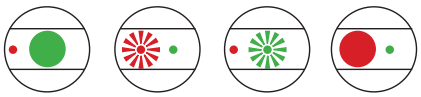
Enclosure
Fiberglass reinforced polyester body
Polycarbonate diffuser, treated against UV
Cable entries
Standard: Three M20 cable entries included
Two M20 Nylon plugs (EX-M20)
One cable gland (EXCGM20S) - ISO M20 Nylon for non-armoured cable, diameter 6-12mm
For armoured cable - continuity plate option: Nickel Plated Steel cable gland (EXN04MMC1), diameter 6-12 / 8.5-16mm (1 or 2 according to number of plates)
Fixing
Standard: V015 - 2 Zinc Plated Steel brackets for ceiling mounting
Rated voltages
Standard: electronic ballast
AC/DC 220-240V, 50-60Hz
For other voltages contact Sales
Power factor
Up to 0.98

For wiring please refer to the instruction manual (drawings)
Downloads available at tnb-hazardous.com

Battery
Ni-Cd 6V 4Ah for 18W /
Ni-Cd 6V 7Ah for 36W battery in flameproof case
Auto cut out of defective light
Lumen output in emergency mode (1 tube lit): 40% at 18W, 33% at 36W
Battery duration: 3h max 36W
Operating in maintained mode (when the main supply is connected: the tubes are lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge), or in non-maintained mode (when the main supply is connected: the tubes are not lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge)
BlackStart
It is possible to wire the EVS-EMA in order to open the fixture in ATEX zones in a completely powered down mode (battery disconnected)
Normal mode: If main power is off, battery powers emergency tube, main tubes are not lit
Disabled mode (terminals B S not connected, usually via switch): Power off, battery is disconnected, and neither main, nor emergency tubes are lit

Preventive maintenance - Self test
- Battery charge - daily
- Emergency lamp during 1min - weekly
- Battery charge capacity during 1hr - quaterly
- Clear system test display

Battery charge monitored by 2 LED



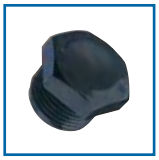
Healthy (test OK) | Emergency or Indicator Lamp Fault (must be replaced) | Test in Progress (waiting end of test) | Fault (replace battery)

Terminal block
Up to 4mm² (rigid wire), 2.5mm² (flexible wire)
Terminals supplied L1, L2, L3, LS, N, PE
Lamps (order separately)
Command must be supplied with switch on line
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

EVN-EM Range

Emergency fluorescent fitting

Approvals / Characteristics

Features

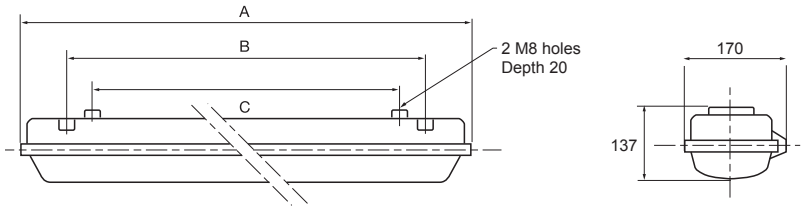
- Double central locking for ingress protection
- Main body constructed of a GRP for high impact strength
- Battery duration 2 hours
- All components mounted on hinged and removable gear tray which gives easy access for maintenance
- Including accessories (cable gland & fixing brackets)
- Option: automatic switch off on opening

Certification & Standards

Approved to: EN60079-0, 60079-15
EC TYPE Examination Certificate:
Ex II 3 G
Ex nR IIC T4 Gb for ≤ -40°C to ≤ +60°C
Ex nR IIC T6 Gb for ≤ -40°C to ≤ +35°C
Ex II 3 D
Ex tc IIIC T85°C Dc IP6X
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -10°C to +40°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type	Wiring Configuration	Rating (W)	Battery	Nominal Current (A)	Dimensions (mm) A	B	C	Weight (kg)
EVN120EM-0000	5 Wire Loop	1 x 18	2h	0.09	785	432	400	6.5
EVN120EM-D000	5 Wire Loop & Continuity plate	1 x 18	2h	0.09	785	432	400	6.5
EVN140EM-0000	5 Wire Loop	1 x 36	2h	0.17	1370	900	700	8.5
EVN140EM-D000	5 Wire Loop & Continuity plate	1 x 36	2h	0.17	1370	900	700	8.5
EVN220EM-0000	5 Wire Loop	2 x 18	2h	0.17	785	432	400	7.5
EVN220EM-D000	5 Wire Loop & Continuity plate	2 x 18	2h	0.17	785	432	400	7.5
EVN240EM-0000	5 Wire Loop	2 x 36	2h	0.33	1370	900	700	10.5
EVN240EM-D000	5 Wire Loop & Continuity plate	2 x 36	2h	0.33	1370	900	700	10.5

**EVN...EM-.0C0 Automatic switch off on opening (to complete with wiring configuration)*

Enclosure
Fibreglass reinforced polyester body
Polycarbonate diffuser, treated against UV
Fixing
Standard: V015 - 2 Zinc Plated Steel brackets for ceiling mounting

For wiring, please refer to the instruction manual (drawings)
Technical assistance on request

Rated voltages
Standard: electronic ballast
AC/DC 220-220V, 50-60Hz
Battery
Ni-Cd 7.2V 4Ah battery
Lumen output in emergency mode (1 tube lit)
40% at 18W, 33% at 36W
Monitored by one LED:
1. operating in maintained mode;
- when the main supply is connected: the tubes are lit, the battery charges
- when the main supply is off : the emergency tube is lit and the battery does not recharge

2. Operating in non maintained mode;
- when the main supply is conneted : the tubes are not lit, the battery charges
- when the main supply is off: the emergency tube is lit and the battery does not recharge

Power factor
Up to 0.98

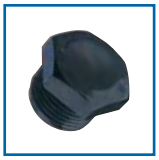
Cable entries
Standard: Three M20 cable entries included
Two M20 Nylon plugs (EX-M20)
One cable gland (EXCGM20S) - ISO M20 Nylon for non-armoured cable, diameter 6-12mm
For armoured cable - continuity plate option:
Nickel Plated Brass cable gland (EXN04MMC1), diameter 6-12 / 8.5-16mm
Terminal block
Up to 4mm² (rigid wire), 2.5mm² (flexible wire)
Select function: Lighting in maintained mode or lighting in non-maintained mode
Terminal block supplied: N, PE, L1, L2, L3, LS
(Looping possible with additional cable gland)
Lamps (order separately)
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k

EMA version available upon request
(with automatic test) - similar to EVS-EMA

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

EVD-EM Range

Emergency fluorescent fitting

Approvals / Characteristics

Ext

D IIIC

GROUP II

ZONE 21 ZONE 22

IP 66 IK 09

Features

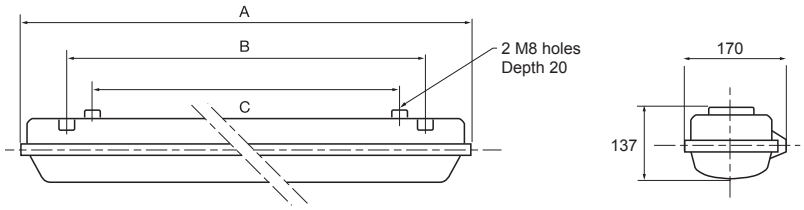
- Double central locking for ingress protection
- Main body constructed of a GRP for high impact strength
- Polycarbonate diffuser to resist harsh and corrosive environments
- All components mounted on hinged and removable gear tray which gives easy access for installation and maintenance
- Battery duration 2 hours
- Including accessories (cable gland & fixing brackets)
- Option: automatic switch off on opening

Certification & Standards

Approved to: EN60079-0, 60079-31
EC TYPE Examination Certificate: Under new 94/9/EC self certified
LCIE II ATEX 3092X
IECEx LCI 11.0064X
Ex t IIIC T82°C (≤ +60°C) Db
Ex t IIIC T62°C (≤ +40°C) Db
Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -10°C to +40°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type	Wiring Configuration	Rating (W)	Battery	Nominal Current (A)	Dimensions (mm) A	B	C	Weight (kg)
EVD120EM-00J0	5 Wire Loop	1 x 18	2h	0.09	785	432	400	6.5
EVD120EM-D0J0	5 Wire Loop & Continuity plate	1 x 18	2h	0.09	785	432	400	6.5
EVD140EM-00J0	5 Wire Loop	1 x 36	2h	0.17	1370	900	700	8.5
EVD140EM-D0J0	5 Wire Loop & Continuity plate	1 x 36	2h	0.17	1370	900	700	8.5
EVD220EM-00J0	5 Wire Loop	2 x 18	2h	0.17	785	432	400	7.5
EVD220EM-D0J0	5 Wire Loop & Continuity plate	2 x 18	2h	0.17	785	432	400	7.5
EVD240EM-00J0	5 Wire Loop	2 x 36	2h	0.33	1370	900	700	10.5
EVD240EM-D0J0	5 Wire Loop & Continuity plate	2 x 36	2h	0.33	1370	900	700	10.5

**EVD...EM-.0C0 Automatic switch off on opening (to complete with wiring configuration)*

Enclosure
Fiberglass reinforced polyester body
Polycarbonate diffuser, treated against UV
Fixing
Standard: V015 - 2 Zinc Plated Steel brackets for ceiling mounting

For wiring, please refer to the instruction manual (drawings)
Technical assistance on request

Rated voltages
Standard: dual tube electronic ballast
AC/DC 220-240V, 50-60Hz
Battery
Ni-Cd 7.2V 4Ah
Lumen level in emergency mode (1 tube lit): 40% at 18W, 33% at 36W
Battery duration in emenrgency mode: 2 hours
Battery charge monitored by one LED
Operating in maintained mode (when the main supply is connected: the tubes are lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge), or in non-maintained mode (when the main supply is connected: the tubes are not lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge)
Power factor
Up to 0.98

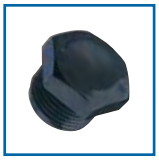
Cable entries
Standard: Three M20 cable entries included
Two M20 Nylon plugs (EX-M20)
One cable gland (EXCGM20S) - M20 Nylon for non-armoured cable, diameter 6-12mm
For armoured cable - continuity plate option: Nickel Plated Brass cable gland (EXN04MMC1), diameter 6-12 / 8.5-16mm
Terminal block
Up to 4mm² (rigid wire), 2.5mm² (flexible wire)
Terminals supplied for N, PE, L1, L2, L3, LS
Select function: Lighting in maintained mode or lighting in non-maintained mode
Lamps (order separately)
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k

EMA version available upon request
(with automatic test) - similar to EVS-EMA

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

ESB-EM Range

Recessed emergency fluorescent fitting

Approvals / Characteristics

Ex

Exde

G IIC

GROUP II

ZONE 1 ZONE 2

IP 64 IK 08

Features

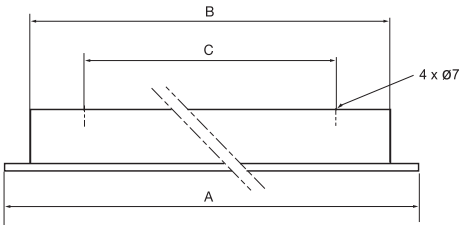
- Main body made from powder coated steel
- 6mm toughened glass making it perfect for laboratories
- Automatic switch off upon opening for safe maintenance
- Battery duration 2 hours
- Including accessories (cable gland)

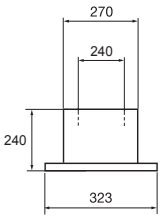
Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7
EC TYPE Examination Certificate: Under 94/9/EC
INERIS II ATEX 0058X
Ex II 2 G
Ex de IIC T4 Gb for ≤ -40°C to ≤ +60°C
Glow wire test: 850°C EN60598-2-22
Safe operating temperature range: -10°C to +40°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications





Type	Wiring Configuration	Rating (W)	Battery	Nominal Current (A)	Glass	Dimensions (mm) A	B	C	Weight (kg)
ESB240EM-0000	5 Wire Loop	2 x 36	2h	0.33	Toughened	1364	1312	105	22
ESB240EM-A000	5 Wire Loop	2 x 36	2h	0.33	Frosted	1364	1312	105	22

Enclosure
Steel housing and body painted in white polyester powderpaint RAL 9016
6mm clear toughened glass panel (optional frosted low lumen output)
Neoprene gasket

For wiring, please refer to the instruction manual (drawings)
Technical assistance on request

Rated voltages
Standard: electronic ballast:
AC/DC 220-240V, 50-60Hz

Battery
Ni-Cd 7.2V 4Ah battery in flameproof case
Lumen level in emergency mode (1 tube lit): 33%
Emergency load duration: 2 hours
Battery change monitored by LED
Operating in maintained mode (when the main supply is connected: the tubes are lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge), or in non-maintained mode (when the main supply is connected: the tubes are not lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge)

Power factor
Up to 0.98

Cable entries
Standard: Two M20 cable entries included
One M20 Nylon plug (EX-M20)
One cable gland (EXCGM20S) - M20 Nylon for non-armoured cable, diameter 6-12mm

Terminal block
Up to 4mm² (rigid wire), 2.5mm² (flexible wire)
Terminals supplied N, PE, L1, 1, 2
Select function: Lighting in maintained mode or lighting in non-maintained mode

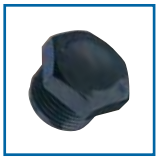
Lamps (order separately)
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k

Fixing
Fixing by 4 M6 threaded bolts (not supplied) joined to the main body

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

Industrial Lighting - Non-Hazardous locations

FF Range

Weatherproof tubular fluorescent fitting

Approvals / Characteristics

IP66 IK08

Features

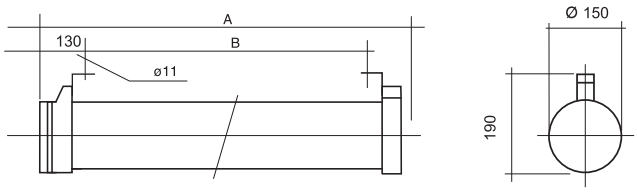
- Ingress protection IP66 ideal for wash down areas
- All components mounted on a removable gear tray which gives easy access for installation and maintenance
- Tubular shape to avoid waste accumulation
- Including accessories (cable gland & fixing brackets)

Technical Data

Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +50°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type	Wiring Configuration	Diffuser	Nominal Rating (W)	Current (A)	Dimensions (mm) A	B	Weight (kg)
FR120-0G000	5 Wire	Polycarbonate	1 x 18	0.15	780	565	4
FR136-0G000	5 Wire	Polycarbonate	2 x PL36	0.2	780	565	4.5
FR140-0G000	5 Wire	Polycarbonate	1 x 36	0.2	1385	1170	7
FR155-0G000	5 Wire	Polycarbonate	1 x PL55	0.35	780	565	4.5
FR165-0G000	5 Wire	Polycarbonate	1 x 58	0.35	1690	1475	8
FF220-0G000	5 Wire	Polycarbonate	2 x 18	0.3	780	565	4.5
FF236-0G000	5 Wire	Polycarbonate	2 x PL36	0.4	780	565	5
FF240-0G000	5 Wire	Polycarbonate	2 x 36	0.4	1385	1170	7
FF255-0G000	5 Wire	Polycarbonate	2 x PL55	0.7	780	565	5
FF265-0G000	5 Wire	Polycarbonate	2 x 58	0.7	1690	1475	9

Enclosure
Reinforced black polycarbonate end caps
UV protected extruded polycarbonate tube, thickness 2.5mm
Temperature
Ambient temperature: -20°C to +50°C
Fixing
Standard: D023 - 2 Zinc Plated Steel articulated brackets for ceiling mounting

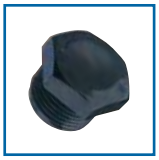
Rated voltages
Electronic ballast: AC/DC 110-260V, 50-60Hz
Power factor
Up to 0.98
Cable entries
Standard: Two M20 entries included
One plug (EX-M20)
One cable gland (EXCGM20S) - M20 Nylon for non-armoured cable, diameter 6-12mm

Terminal block (plug in terminal block)
Up to 10mm² (rigid wire), 6mm² (flexible wire)
Standard: terminals supplied for L1, L2, L3, N, PE
Looping possible with additional cable gland
Lamps (order separately)
T8 bi-pin G13 tube, Ø 26 - white industry 4000°K
G11 compact fluorescent PL lamp

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

EL Range

Weatherproof miniature tubular fluorescent fitting

Approvals / Characteristics

IP66 IK08

Features

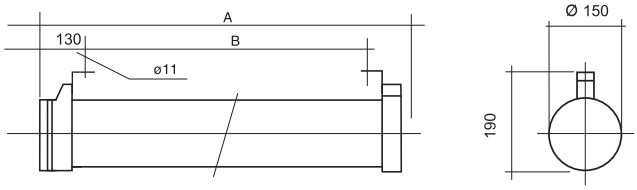
- Small and compact for confined spaces
- Ingress protection IP66 ideal for wash down areas
- All components mounted on a removable gear tray which gives easy access for installation and maintenance
- Tubular shape to avoid waste accumulation
- Including accessories (cable gland & fixing brackets)

Technical Data

Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +50°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type	Wiring Configuration	Diffuser	Nominal Rating (W)	Current (A)	Dimensions (mm) A	B	Weight (kg)
EL3008-0G000	5 Wire	Polycarbonate	1 x 8	0.1	455	240	3
EL3009-0G000	5 Wire	Polycarbonate	1 x PL9	0.1	455	240	3
EL30011-0G000	5 Wire	Polycarbonate	1 x PL11	0.1	455	240	3.5
EL120-0G000	5 Wire	Polycarbonate	1 x PL18	0.3	455	240	3.5
EL220-0G000	5 Wire	Polycarbonate	2 x PL18	0.5	455	240	4
EL30028-0G000	5 Wire	Polycarbonate	2 x 8	0.1	455	240	3.5

Enclosure
Reinforced black polycarbonate end caps
LEXAN 2034 UV protected extruded polycarbonate tube, thickness 2.5mm
Neoprene gasket
Temperature
Ambient temperature: -20°C to +50°C
Fixing
Standard: D023 - 2 Zinc Plated Steel articulated brackets for ceiling mounting

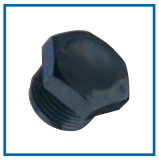
Rated voltages
Standard:
Electronic ballast: AC/DC 220-240V, 50/60Hz
Power factor
Up to 0.98
Cable entries
Standard: Two M20 entries included
One plug (EX-M20)
One cable gland (EXCGM20S) - M20 Nylon for non-armoured cable, diameter 6-12mm

Terminal block (plug in terminal block)
Up to 10mm² (rigid wire), 6mm² (flexible wire)
Standard terminals supplied for L1,L2,L3, N, PE
Looping possible with additional cable glands
Lamps (order separately)
T8 bi-pin G13 tube, Ø 26 - white industry 4000°K
G11 compact fluorescent PL lamp
Lamp with G11 base (18W)
or G23 (7W, 9W, 11W)

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

SF / QF / EF Range

Weatherproof floodlight fitting

Approvals / Characteristics

IP66 IK08

Features

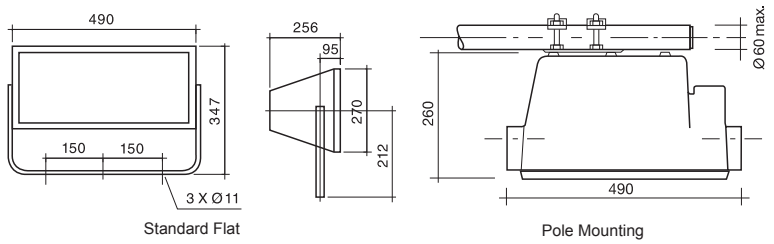
- Compact, lightweight and robust ideal for lighting large areas
- Integral junction box: rapid installation
- Excellent photometric properties, wide or narrow beam
- Including accessories (cable gland & lamps installed)
- Supplied with offshore grade paint

Technical Data

IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Standard Flat

Pole Mounting

Type*	Nominal Rating (W)	Current (A)	Mounting	Weight (kg)
SF70P-00000	1 x 70 HP Sodium	0.4	Flat	17
SF70G-00000	1 x 70 HP Sodium	0.4	Pole	17
SF150P-00000	1 x 150 HP Sodium	0.8	Flat	17
SF150G-00000	1 x 150 HP Sodium	0.8	Pole	17
SF250P-00000	1 x 250 HP Sodium	1.3	Flat	18
SF250G-00000	1 x 250 HP Sodium	1.3	Pole	18
SF400P-00000	1 x 400 HP Sodium	2.1	Flat	20
SF400G-00000	1 x 400 HP Sodium	2.1	Pole	20
QF250P-00000	1 x 250 Metal Halide	1.3	Flat	18
QF250G-00000	1 x 250 Metal Halide	1.3	Pole	18
QF400P-00000	1 x 400 Metal Halide	2.1	Flat	20
QF400G-00000	1 x 400 Metal Halide	2.1	Pole	20
EF110P-00000	2 x 55 Halogen 12V	9.2	Flat	13
EF110G-00000	2 x 55 Halogen 12V	9.2	Pole	13
EF140P-00000	2 x 70 Halogen 24V	5.8	Flat	13
EF140G-00000	2 x 70 Halogen 24V	5.8	Pole	13

**Option: ...F... -0A000 (to complete with nominal rating & mounting) - Narrow beam, for example: SF400P-0A000*

Enclosure
Marine grade aluminium alloy type according to EN1706:EN AC-AlSi7 Mg 0,6 T6
Cataphoretically treated
12mm toughened glass
Stainless steel screws

Temperature
Ambient temperature: -20°C to +60°C

Rated voltages
Standard: 230V 50Hz ferromagnetic ballast, with capacitor
Option: 220V 60Hz ferromagnetic ballast or 120V 60Hz on few models, ferromagnetic ballast

Power factor
Up to 0.85 for version with compensated ballast (Sodium HP and metal halide)

Cable entries
Standard: Two M20 entries included
One M20 Nickel Plated Brass plug (EXN/M20/SP)
One cable gland (EXN04MMC2) - Nickel Plated Brass M20 for non-armoured cable, diameter 10-16mm

Lamps (Installed)
Polished aluminium reflector
Standard: wide beam
Option: narrow beam

Other options
Sling (SC100 ELINGUE)
Galvanised steel support with base plate (SA103)
Pre wired masthead floodlighting systems: Full system with 2 or 4 floodlights (to complete with nominal rating), for example HM 4400 (4 x 400 W HPS) (See photo on XF Range)

Terminal block
Up to 6mm² (rigid wire), 4mm² (flexible wire)
Terminals supplied: L, N, PE

Fixing
Standard:galvanised steel flat mounting bracket,
Pole mounted: Ø 40 to 60mm

Colour (standard)
- SF/QF/EF***-00000 - Yellow offshore, RAL 1003

Colour options
- SF/QF/EF***-B0000 - Grey, RAL 7035
- SF/QF/EF***-C0000 - Black, RAL 9004
- SF/QF/EF***-D0000 - Hammered Blue, RAL 5015
- SF/QF/EF***-F0000 - Red, RAL 3001
- SF/QF/EF***-G0000 - Blue, RAL 5010
- SF/QF/EF***-J0000 - Green, RAL 6032
- SF/QF/EF***-M0000 - White, RAL 9010

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Stopping Plugs 174


XB100 Range 104


Ex e Cable Gland 166

EVT Range

Weatherproof fluorescent fitting with diffuser

Approvals / Characteristics

IP66 IK09

Features

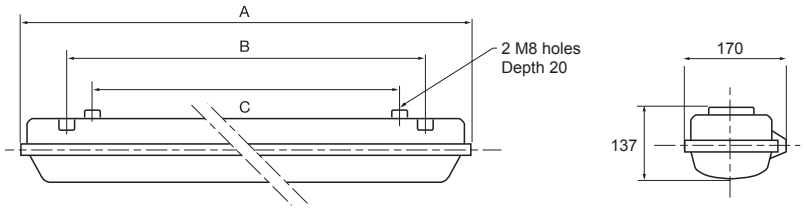
- **Double central locking for ingress protection**
- **Including accessories (cable gland & fixing brackets)**
- **Option: automatic switch off on opening**

Technical Data

Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +50°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type*	Wiring Configuration	Rating (W)	Nominal Current (A)	Dimensions (mm) A	B	C	Weight (kg)
EVT120-A0J0	5 Wire Loop	1 x 18	0.09	785	432	400	4.2
EVT120-D0J0	5 Wire Loop & Continuity plate	1 x 18	0.09	785	432	400	4.2
EVT140-A0J0	5 Wire Loop	1 x 36	0.17	1370	900	700	6.5
EVT140-D0J0	5 Wire Loop & Continuity plate	1 x 36	0.17	1370	900	700	6.5
EVT165-A0J0	5 Wire Loop	1 x 58	0.26	1670	900	700	8
EVT165-D0J0	5 Wire Loop & Continuity plate	1 x 58	0.26	1670	900	700	8
EVT220-A0J0	5 Wire Loop	2 x 18	0.17	785	432	400	4.5
EVT220-D0J0	5 Wire Loop & Continuity plate	2 x 18	0.17	785	432	400	4.5
EVT240-A0J0	5 Wire Loop	2 x 36	0.33	1370	900	700	6
EVT240-D0J0	5 Wire Loop & Continuity plate	2 x 36	0.33	1370	900	700	6
EVT265-A0J0	5 Wire Loop	2 x 58	0.5	1670	900	700	8.5
EVT265-D0J0	5 Wire Loop & Continuity plate	2 x 58	0.5	1670	900	700	8.5

**(Through options)* *Define type rating (to complete with rating): EVT...-B0J0 5 Wires through, EVT...-E0J0 with two continuity plates, EVT...-.0C0 Automatic switch off on opening (to complete with wire configuration)*

Enclosure
Fiberglass reinforced polyester body
Polycarbonate diffuser, treated against UV
Temperature
Ambient temperature: -20°C to +50°C
Fixing
Standard: V015 - 2 Zinc Plated Steel brackets for ceiling mounting

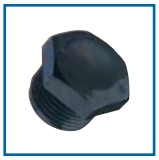
Rated voltages
Standard electronic ballast:
AC/DC 110-260V , 50-60Hz
Power factor
Up to 0.98
Cable entries
Standard: Three M20 cable entries included
Two M20 Nylon plug (EX-M20)
One cable gland (EXCGM20S) - M20 Nylon for non-armoured cable, diameter 6-12mm
For armoured cable - continuity plate option: Nickel Plated Brass cable gland (EXN04MMC1), diameter 6-12 / 8.5-16mm (1 or 2 according to number of plates)

Terminal block
Up to 6mm² (rigid wire), 4mm² (flexible wire)
Standard: Terminals supplied for L1, L2, L3, N, PE
Looping possible with additional cable glands
5 wire through option I MAX =16A max
Lamps (order separately)
T8 bi-pin G13 tube, Ø 26 - cool white 4000°K

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

EST Range

Weatherproof recessed fluorescent fitting

Approvals / Characteristics

IP64 IK08

Features

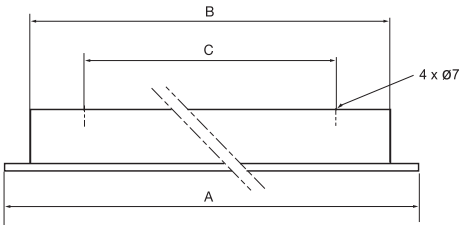
- **Fitting combines photometric qualities, strength and design**
- **Including accessories (cable gland)**

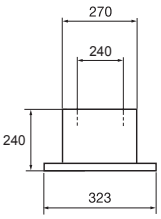
Technical Data

Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +50°C
IP test: IP64 IEC 60529 (2001)

Dimensions

Technical Specifications





Type	Wiring Configuration	Rating (W)	Glass	Nominal Current (A)	Dimensions (mm) A	B	C	Weight (kg)
EST220-00J0	5 Wire Loop	2 x 18	Toughened	0.17	753	702	105	12.5
EST220-A0J0	5 Wire Loop	2 x 18	Frosted	0.17	753	702	105	12.5
EST240-00J0	5 Wire Loop	2 x 36	Toughened	0.33	1364	1312	105	20
EST240-A0J0	5 Wire Loop	2 x 36	Frosted	0.33	1364	1312	105	20
EST265-00J0	5 Wire Loop	2 x 58	Toughened	0.5	1664	1612	105	25
EST265-A0J0	5 Wire Loop	2 x 58	Frosted	0.5	1664	1612	105	25

Enclosure
Steel housing and body painted in white polyester powder paint RAL 9016 (stainless steel 304L on request)
6mm clear toughened glass panel (optional frosted low lumen output)
Temperature
Operating temperature range: -20°C to +40°C

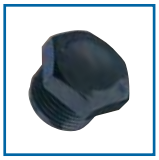
Rated voltages
Standard: electronic ballast
AC/DC 110-260V, 50-60Hz
Power factor
Up to 0.98
Cable entries
Standard: Two M20 cable entries included
One M20 Nylon plug (EX-M20)
One cable gland (EXCGM20S) - ISO M20 Nylon for non-armoured cable, diameter 6-12mm

Terminal block
Up to 4mm² (rigid wire), 2.5mm² (flexible wire)
Terminals supplied L1, L2, L3, N, PE
Lamps (order separately)
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k
Fixing
Fixing by 4 M6 threaded bolts (not supplied) joined to the main body

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

FB / FL Range

Weatherproof warning lights and beacons

Approvals / Characteristics

IP66 IK10

Features

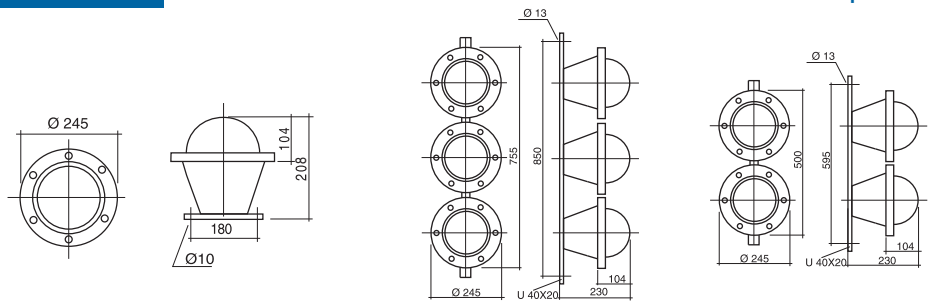
- Lightweight and robust for easy installation
- Static or flashing versions available for use in a variety of applications
- Choice of 5 colours of globe
- 2 or 3 light versions available for traffic signals
- Including accessories (cable gland, plug & lamp installed)

Technical Data

IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Contact Sales for Mounting Options

Type	Rating (W)	Lamp	Standard Globe*	Version	Rated Voltages	Weight (kg)
FB30-00000	1 x 28	E27	Red	Halogen	AC 230V 50/60Hz	3.5
FB70-00000	1 x 8	E27	Red	LED	AC 100-240V 50/60Hz	3.5
FL30P-00000	30 Joules	Picots	Red	Xenon flash	AC 230V 50/60Hz	4
FL30P-0C000	30 Joules	Picots	Red	Xenon flash	AC 100V 50/60Hz	4
FL30P-0D000	30 Joules	Picots	Red	Xenon flash	DC 24V	4
FL30P-0E000	30 Joules	Picots	Red	Xenon flash	DC 48V	4
FL30P-0F000	30 Joules	Picots	Red	Xenon flash	DC 110V	4

**Choice of globe colours: XF...-00000 - Red, XF...-000A0 - Transparent globe, XF...-000B0 - Green globe, XF...-000C0 - Orange globe, XF...-000D0 - Blue globe*
***For colour combinations: Colour combination: please contact Sales for more information*

Enclosure
Marine grade aluminium alloy type
EN1706 AC-43100KF-AlSi 10Mg
Aluminium reflector
Temperature
Ambient temperature: -20°C to +60°C

Cable entries
Standard: Two entries M20 included
One M20 nickel plated brass plug (EXN/M20/SP) and one cable gland (EXN04MMC2) - Nickel Plated Brass ISO M20 for non-armoured cable, diameter 10-16mm
Terminal block
Up to 6mm²
Terminals supplied for L, N, PE
Lamps (supplied)
For xenon flash versions
Flashing rate: 45 to 60 - per minute
Globe
Polycarbonate, thickness 3mm

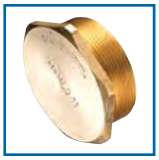
Colour (standard)
- FB/FL***-00000 - Yellow offshore, RAL 1003

Colour options
- FB/FL***-B0000 - Grey, RAL 7035
- FB/FL***-C0000 - Black, RAL 9004
- FB/FL***-D0000 - Hammered Blue, RAL 5015
- FB/FL***-F0000 - Red, RAL 3001
- FB/FL***-G0000 - Blue, RAL 5010
- FB/FL***-J0000 - Green, RAL 6032
- FB/FL***-M0000 - White, RAL 9010

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Stopping Plugs 176


XB100 Range 104


Ex e Cable Gland 166

HF Range
Portable floodlight

Approvals / Characteristics

IP66 IK10

Features

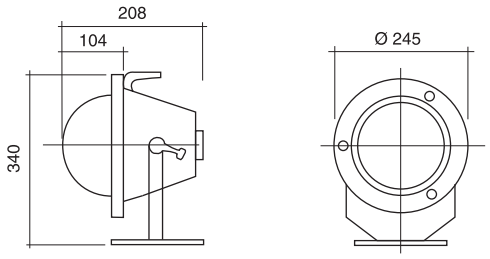
- Lightweight and robust
- Free standing on base plate for stable use in high winds
- Fully portable with carrying handle
- Including accessories (cable gland & lamp installed)

Technical Data

IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type	Rating (W)	Lamp	Power Supply (V)	Nominal Current (A)	Weight (kg)
HF55P-00000	55	Halogen H3	12	4.6	6
HF70P-00000	70	Halogen H3	24	2.9	6

Enclosure
Marine grade aluminium alloy
Globe: 3mm thick transparent polycarbonate
Temperature
Ambient temperature: -20°C to +60°C

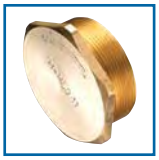
Cable entries
One M20 entry included
One cable gland (EXN04MMC2) - ISO M20 Nickel Plated Brass for non-armoured cable, diameter 10-16mm
Terminal block
Up to 6mm²
Terminals supplied L, N, PE

Lamps (supplied)
70W - 24V iodine lamp - H3 lampholder
55W - 12V iodine lamp - H3 lampholder
Fixing (including)
Galvanised steel support with base plate ref. SA103

Spares & Fixings Accessories see pages 90-95

Related Products


EXL Conduit 148


Stopping Plugs 176


GUV Range 120


Ex e Cable Gland 166

FR-EM / FF-EM Range

Emergency weatherproof tubular fluorescent fitting

Approvals / Characteristics

IP66 IK08

Features

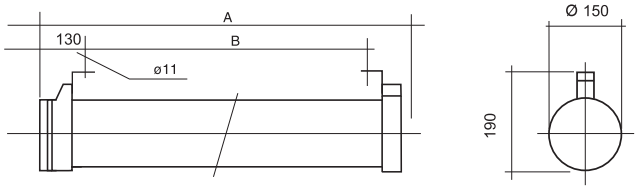
- Ingress protection IP66 ideal for wash down areas
- All components mounted on removable gear tray which gives easy access for installation and maintenance
- Battery 2h duration
- Tubular shape to avoid waste accumulation
- Including accessories, cable gland & fixing brackets

Technical Data

Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -20°C to +40°C

Dimensions

Technical Specifications



Type	Wiring Configuration	Diffuser	Rating (W)	Nominal Current (A)	Battery	Dimensions (mm) A	B	Weight (kg)
FR120EM-0G000	3 Wire	Polycarbonate	1 x 18	0.15	2h	780	565	5
FR140EM-0G000	3 Wire	Polycarbonate	1 x 36	0.2	2h	1385	1170	8
FF220EM-0G000	3 Wire	Polycarbonate	2 x 18	0.2	2h	780	565	5.5
FF240EM-0G000	3 Wire	Polycarbonate	2 x 36	0.35	2h	1385	1170	8

Enclosure
Reinforced black polycarbonate end caps
UV protected extruded polycarbonate tube, thickness 2.5mm
Temperature
Ambient temperature: -10°C to +40°C
Fixing
Standard: D023 - 2 Zinc Plated Steel articulated brackets for ceiling mounting

For wiring, please refer to the instruction manual (drawings)
Technical assistance on request

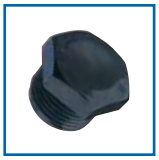
Power Factor
Up to 0.98
Rated voltages
Electronic ballast: AC/DC 220-240V, 50-60Hz
Battery
Ni-Cd battery 7.2V, 4Ah
Lumen output in emergency mode (1 tube lit): 40% for 8W, 33% for 36W
Battery duration in emergency mode: 2 hours
Monitored by one LED
Operating in maintained mode (when the main supply is connected: the tubes are lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge), or in non-maintained mode (when the main supply is connected: the tubes are not lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge)
Cable entries
Standard: Two M20 entries included
One cable gland (EXCGM20S) - ISO M20 Nylon for non-armoured cable, diameter 6-12mm
One Nylon plug (EXM20)

Terminal block (plug in terminal block)
Terminals supplied: L1,2,N, PE
Up to 10mm² (rigid wire), 6mm² (flexible wire)
Standard: terminals supplied for L1, 2, N, PE
Looping possible with additional cable gland
Lamps (order separately)
T8 bi-pin G13 tube, Ø 26 - white industry 4000°K

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176


XB100 Range 104


Exe Nylon Gland 168

EVT-EM Range

Emergency weatherproof fluorescent fitting with diffuser

Approvals / Characteristics

IP66 IK09

Features

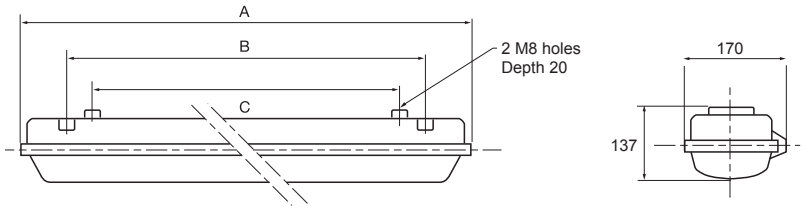
- Double central locking for ingress protection
- Battery duration 2 hours
- Included accessories (cable gland & fixing brackets)
- Option: automatic switch off on opening

Technical Data

Glow wire test: 960°C EN60598-2-22
Safe operating temperature range: -10°C to +40°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications



Type*	Wiring Configuration	Rating (W)	Battery	Nominal Current (A)	Dimensions (mm) A	B	C	Weight (kg)
EVT120EM-00J0	5 Wire	1 x 18	2h	0.09	785	432	400	6.5
EVT120EM-D0J0	5 Wire & Continuity plate	1 x 18	2h	0.09	785	432	400	6.5
EVT140EM-00J0	5 Wire	1 x 36	2h	0.17	1370	900	700	8.5
EVT140EM-D0J0	5 Wire & Continuity plate	1 x 36	2h	0.17	1370	900	700	8.5
EVT220EM-00J0	5 Wire	2 x 18	2h	0.17	785	432	400	7.5
EVT220EM-D0J0	5 Wire & Continuity plate	2 x 18	2h	0.17	785	432	400	7.5
EVT240EM-00J0	5 Wire	2 x 36	2h	0.33	1370	900	700	10.5
EVT240EM-D0J0	5 Wire & Continuity plate	2 x 36	2h	0.33	1370	900	700	10.5

**(Through options)* *EVT...-.0C0 Automatic switch off on opening (to complete with wire configuration)*

Enclosure
Fiberglass reinforced polyester body
Polycarbonate diffuser, treated against UV
Temperature
Ambient temperature: -10°C to +40°C
Fixing
Standard: V015 - 2 Zinc Plated Steel brackets for ceiling mounting

For wiring, please refer to the instruction manual (drawings)
Technical assistance on request

Rated voltages
Electronic ballast: AC/DC 220-240V, 50-60Hz
Battery
Ni-Cd 7.2V 4Ah
Lumen level in emergency mode (1 tube lit): 40% for 18W, 33% for 36W
Battery duration in emergency mode: 2 hours
Battery charge monitored by LED
Operating in maintained mode (when the main supply is connected: the tubes are lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge), or in non-maintained mode (when the main supply is connected: the tubes are not lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge)
Power factor
Up to 0.98 with electronic ballast

Cable entries
Standard: Three M20 cable entries included
Two M20 Nylon plugs (EX-M20)
One cable gland (EXCGM20S) - M20 Nylon for non-armoured cable, diameter 6-12mm
For armoured cable - continuity plate option: Nickel Plated Brass cable gland (EXN04MMC1), diameter 6-12 / 8.5-16mm (1 or 2 according to number of plates)
Terminal block (plug in terminal block)
Up to 6mm² (rigid wire), 4mm² (flexible wire)
Terminals supplied : L1, L2, L3, N, PE, LS
Select function: Lighting in maintained mode or lighting in non-maintained mode
Lamps (order separately)
T8 bi-pin G13 tube, Ø 26 - cool white 4000°K

EMA version available upon request
(with automatic test) - similar to EVS-EMA

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Ex d Cable Gland 162


XB100 Range 104


Exe Nylon Gland 168

EST-EM Range

Emergency weatherproof recessed fluorescent fitting

Approvals / Characteristics

IP66 IK08

Features

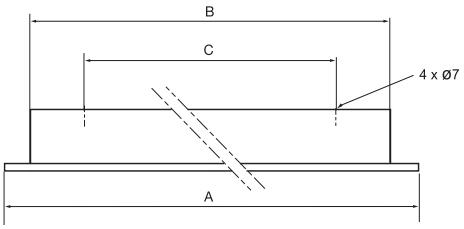
- Fitting combines photometric qualities, strength and design
- Battery duration 2 hours
- Included accessories (cable gland)

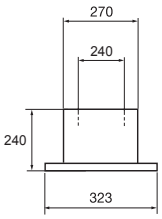
Technical Data

Glow wire test: 850°C EN60598-2-22
Safe operating temperature range: -10°C to +40°C
IP test: IP66 IEC 60529 (2001)

Dimensions

Technical Specifications





Type	Wiring Configuration	Rating (W)	Battery	Nominal Current (A)	Glass	Dimensions (mm) A	B	C	Weight (kg)
EST240EM-00J0	5 Wire	2 x 36	2h	0.33	Toughened	1364	1312	105	22
EST240EM-A0J0	5 Wire	2 x 36	2h	0.33	Frosted	1364	1312	105	22

Enclosure
Steel housing and body painted in white polyester powder paint RAL 9016
6mm clear toughened glass panel (optional frosted low lumen output)
Temperature
Operating temperature range:
-10°C to +40°C

For wiring, please refer to the instruction manual (drawings)
Technical assistance on request

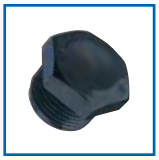
Rated voltages
Electronic ballast:
Standard: AC/DC 220-240V, 50-60Hz
Battery
Ni-Cd 7.2V 4Ah
Lumen level in emergency mode (1 tube lit): 33%
Emergency load duration: 2 hours
Battery charge monitored by LED
Operating in maintained mode (when the main supply is connected: the tubes are lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge), or in non-maintained mode (when the main supply is connected: the tubes are not lit, the battery charges / when the main supply is off: the emergency tube is lit and the battery does not recharge)
Power factor
Up to 0.98
Cable entries
Standard: Two M20 cable entries included
One M20 Nylon plug and
One cable gland (EXCGM20S) - ISO M20 Nylon for non-armoured cable, diameter 6-12mm
One Nylon plug (EX-M20)

Terminal block
Up to 4mm² (rigid wire), 2.5mm² (flexible wire)
Terminals for L, N, PE terminal 1 and terminal 2
Select function: Lighting in maintained mode or lighting in non-maintained mode
Lamps (order separately)
Tube G13 bi-pin T8 Ø 26 coolwhite 4000°k

Spares & Fixings Accessories see pages 90-95

Related Products


EXB Conduit 138


Nylon Stopping Plugs 176

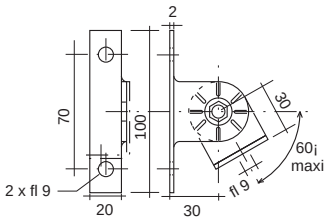

XB100 Range 104


Exe Nylon Gland 168

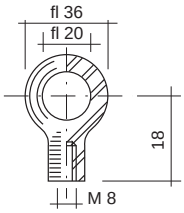
Fixing Accessories

Fixing Accessories for DTS lighting fittings

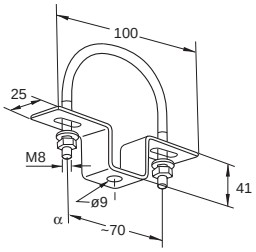
Fixing Accessories for EV Fluorescent Light Fitting Range



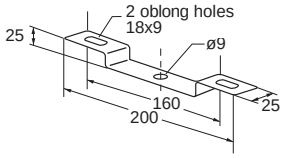
Hinged bracket
V023: plastic coated



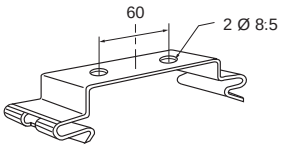
Hook
V024: zinc plated steel



Fixing bracket and flange for
ø 1”1/4 and 1”1/2
V018: zinc plated steel (V019 - 2”)
V021: stainless steel 316L (V022 - 2”)

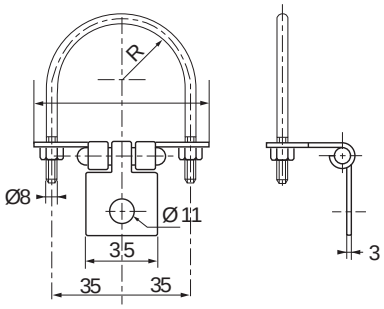


Brackets
Standard V015: zinc plated steel
V016: stainless steel 316L

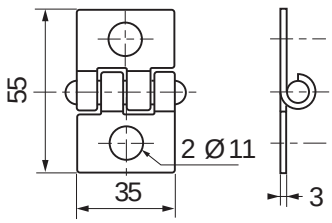


Mounting bracket clip
V014: stainless steel

Fixing Accessories for Tubular Fitting: XFF / XFR / XFP / XEL / XEP / XFF-EM / XFP-EM / FF / FR / EL / FF-EM Range



U-bolt for pole mounting
for 1”1/4
D025: zinc plated steel
(D026 - 1”1/2)
(D027 - 2”)

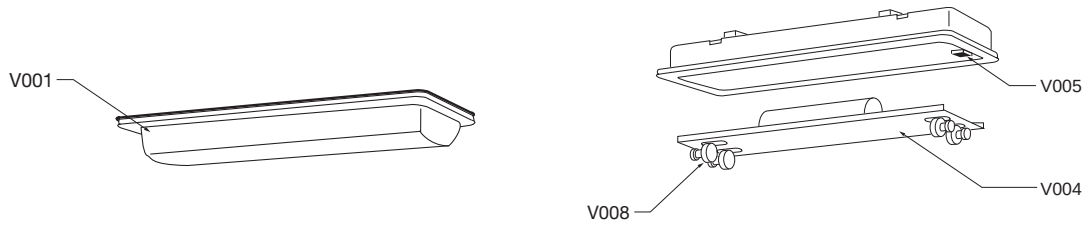


Bracket
Standard D023: zinc plated steel
D024: stainless steel 304L

Spare Parts

Spare Parts for DTS lighting fittings

Spare Parts for EVS / EVN / EVD / EVN / EVT Fluorescent Light Fitting Range



EVS-EM/EMA Range

Type	Specifications
V001	Transparent diffuser (included gasket)*
V004	Complete gear tray*
V005S	Connection Pack: Switch, Connector, Terminal
V008	Bi-pin Lampholder
V011	Battery pack*

EVN / EVD / EVT-EM/EMA Range

Type	Specifications
V001	Transparent diffuser (included gasket)*
V004	Complete gear tray*
V005E	Switch*
V008N	Bi-pin Lampholder

*Define type, rating and operating voltage

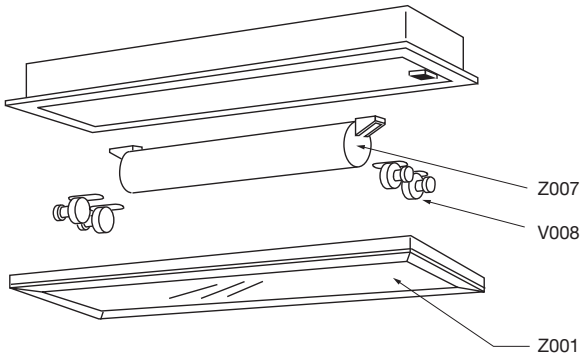
Spare Parts for ES Recessed Fluorescent Light Fitting Range

ESB / ESB-EM Range

Type	Specifications
Z001	Tranparent frame*
Z007	Electronic Ballast*
V008	Lampholder
V011	Battery Pack*

EST / EST-EM Range

Type	Specifications
Z001	Tranparent frame*
Z007N	Electronic Ballast*
V008N	Lampholder

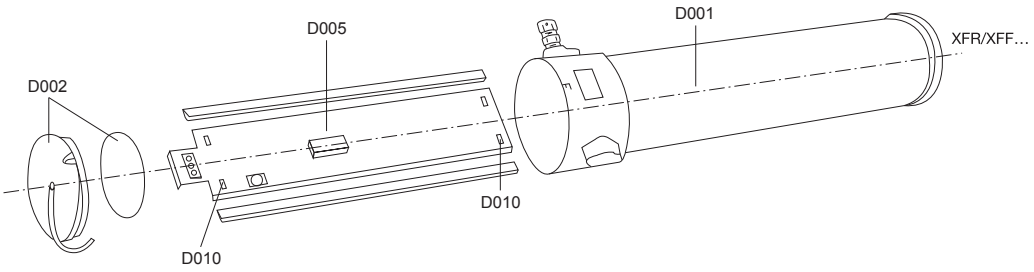


*Define type, rating and operating voltage

Spare Parts

Spare Parts for DTS lighting fittings

Spare Parts for XFF / XFR Tubular Light Fitting Range

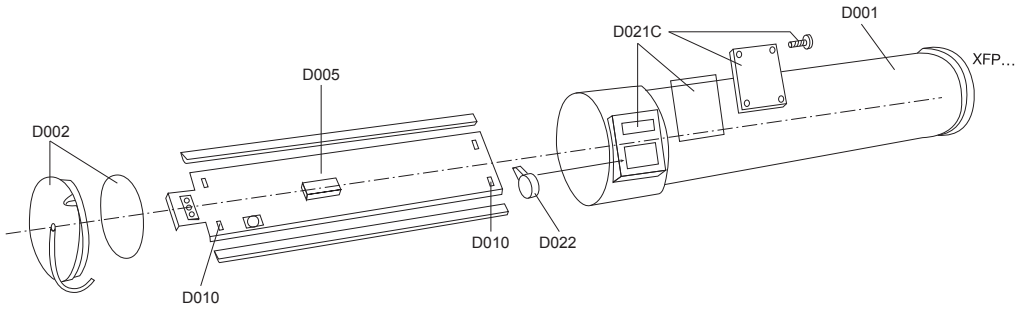


XFF / XFR Range

Type	Specifications
D001	Sealed tube, cover, gasket, chain and slides*
D002	Cover, chain, gasket
D005	Complete gear tray* (included FF/FR Range)
D010	Bi-pin Lampholder
4GRA00002S	Grease for tubular model

**Define type, rating and operating voltage*

Spare Parts for XFP Tubular Light Fitting Range



XFP Range

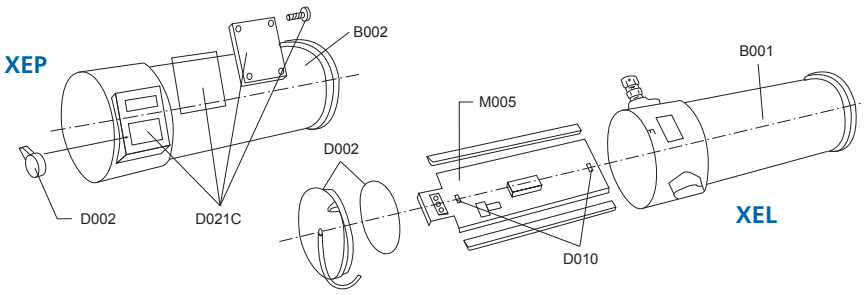
Type	Specifications
D001	Sealed tube, cover, gasket, chain and slides*
D002	Cover, chain, gasket
D005	Complete gear tray*
D010	Bi-pin Lampholder
D021C	Cover, gasket, screw, terminals, switch of junction boxes
D022	Interlock
4GRA00002S	Grease for tubular model

**Define type, rating and operating voltage*

Spare Parts

Spare Parts for DTS lighting fittings

Spare Parts for XEL / XEP Miniature Tubular Light Fitting Range



XEL Range

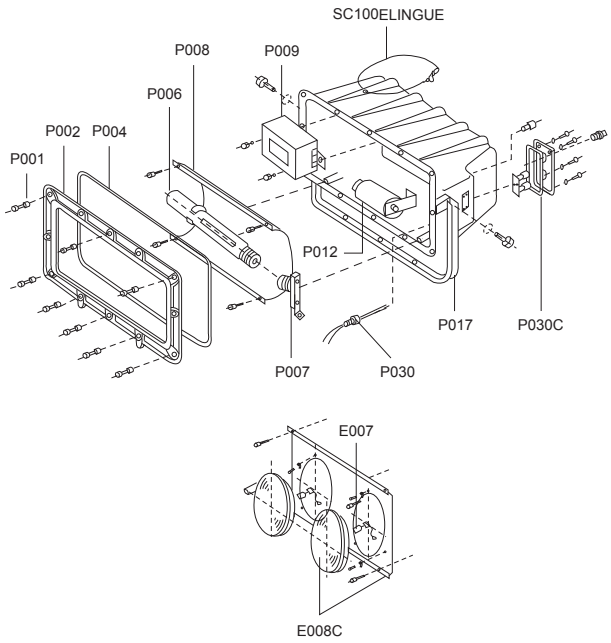
Type	Specifications
B001	Sealed tube, cover, gasket, chain and slides*
D002	Cover, chain, gasket
M005	Complete gear tray* (included EL Range)
D010	Bi-pin Lampholder*
4GRA00002S	Grease for tubular model

XEP Range

Type	Specifications
B002	Sealed tube, cover, gasket, chain and slides*
D002	Cover, chain, gasket
M005	Complete gear tray*
D010	Bi-pin Lampholder*
D021C	Cover, gasket, screw, terminals, switch and interlock of junction boxes
D022	Interlock
4GRA00002S	Grease for tubular model

**Define type, rating and operating voltage*

Spare Parts for XSF / XQF / XEF / EF / SF / QF Floodlight Range



XSF / XQF / XEF / SF / QF / EF Range

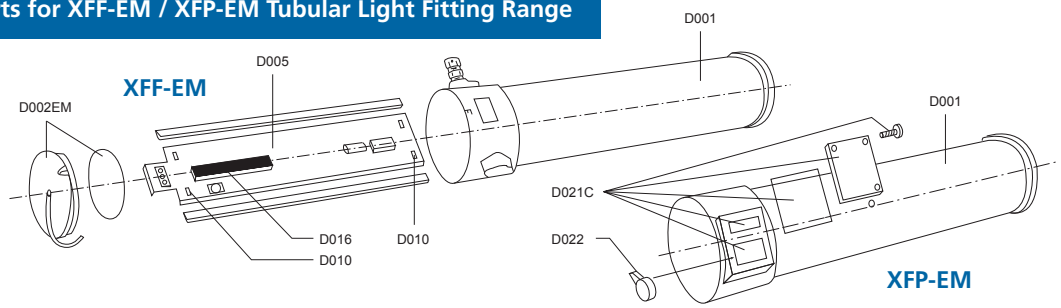
Type	Specifications
P001	Closing Screw (12)
P002	Sealed front glass*
P004	Gasket*
P006	Lamp*
P007	Lampholder
P008	Reflector*
P009	Ferromagnetic Ballast*
P010	Ferromagnetic Ballast 120V 60Hz (400W)
P012	Ignitor
P017FC	Fixing (including screws)
P030C	Boxes Accessories: terminal 2* 6mm² + earthing terminal, + cover gasket, + cover, screw
P030	Ex trough connector
E007	Iodine Lamp*
E008C	Gear tray support, + fixing for optic, + optic for XEF
4GRA00001S	Grease for model XSF, XQF,XEF

**Define type, rating and operating voltage*

Spare Parts

Spare Parts for DTS lighting fittings

Spare Parts for XFF-EM / XFP-EM Tubular Light Fitting Range



XFF-EM Range

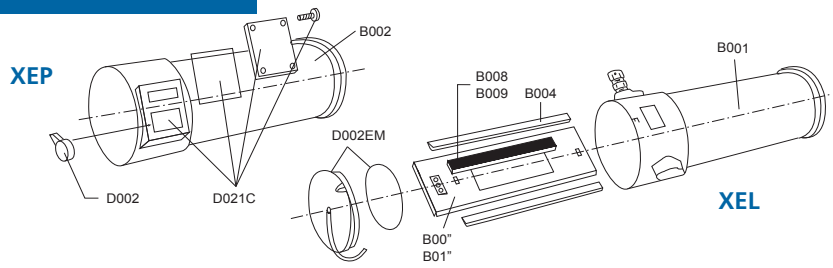
Type	Specifications
D001	Sealed tube, cover, gasket, chain and slides*
D002EM	Cover, chain, gasket
D005	Complete gear tray*
D010	Bi-pin Lampholder
D016	Battery pack
4GRA00002S	Grease for tubular model

XFP-EM Range

Type	Specifications
D001	Sealed tube, cover, gasket, chain and slides*
D002EM	Cover, chain, gasket
D005	Complete gear tray*
D010	Bi-pin Lampholder
D016	Battery pack
D021C	Cover, gasket, screw, terminals, switch an interlock of junction boxes
D022	Interlock
4GRA00002S	Grease for tubular model

*Define type, rating and operating voltage

Spare Parts for XEL-BAES Range - XEL / XEP



XEL- A / AK / AI / SI Range

Type	Specifications
B001	Sealed tube, cover, gasket, chain and slides*
D002EM	Cover, chain, gasket
B004	Slide for gear tray - XEL / XEP / XEL-BAES
B008B	Battery XEL 80A
B008C	Battery + XIN05 XEL80AK / XEL80AI / XEL80SI
B009A	Battery + XIN05 XEL300AK / XEL300AI / XEL300SI
B009	Battery XEL3001 / XEL300A
B005B	Gear tray - 230V 50Hz - XEL 80A
B006L	Gear tray - 230V 50/60Hz - XEL 3001
B007	Gear tray - 230V 50/60Hz - XEL 3002
B010B	Gear tray - 230V 50Hz - XEL 80AK / XEL80AI
B013K	Gear tray - 230V 50Hz - XEL 300AK / XEL300AI
B013	Gear tray - 230V 50Hz - XEL 300A
B014B	Gear tray - 230V 50Hz - XEL 80SI
B015	Gear tray - 230V 50Hz - XEL 300SI
4GRA00002S	Grease for tubular model

XEL - AI / SI Range (ONLY)

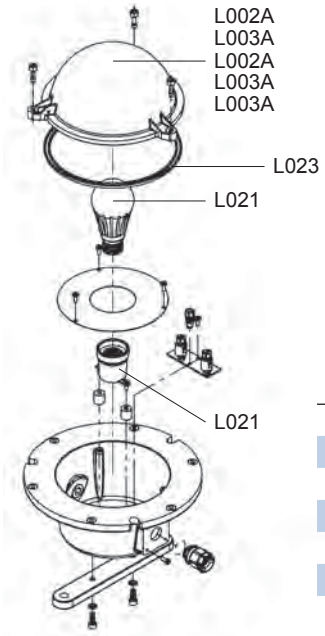
Type	Specifications
B002	Sealed tube, cover, gasket, chain and slides*
D021C	Cover, gasket, screw, terminals, switch and interlock of junction boxes
D022	Interlock

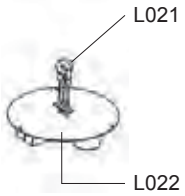
*Define type, rating and operating voltage

Spare Parts

Spare Parts for DTS lighting fittings

Spare Parts for XFB / XFL / FB / FL Beacons Range





XFB / FB Range

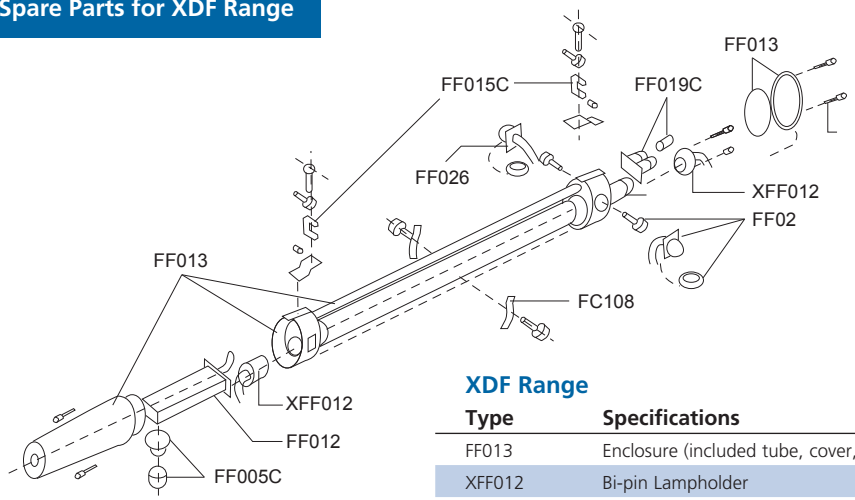
Type	Specifications
L00*	Globe (included gasket L023)
L021	Lamp*
L013	Lampholder

XFL / FL Range

Type	Specifications
L00*	Globe (included gasket L023)
L021	Lamp*
L022110VCC	Gear tray - 110V DC - for XFL30P / XFL230P / XFL330P / FL30P / FL230P / FL330P
L022110VAC	Gear tray - 110V AC - for XFL30P / XFL230P / XFL330P / FL30P / FL230P / FL330P
L022220VAC	Gear tray - 220 - 230VAC 50-60Hz - for XFL30P / XFL230P / XFL330P / FL30P / FL230P / FL330P
L02224VCC	Gear tray - 24V DC - for XFL30P / XFL230P / XFL330P / FL30P / FL230P / FL330P
L02248VCC	Gear tray - 48V DC - for XFL30P / XFL230P / XFL330P / FL30P / FL230P / FL330P

**Define type, rating and operating voltage*

Spare Parts for XDF Range



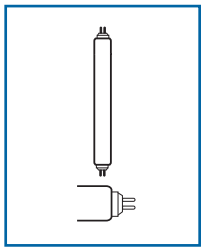
XDF Range

Type	Specifications
FF013	Enclosure (included tube, cover, gasket, screws)*
XFF012	Bi-pin Lampholder
FF005C	Lampholder and starter
FF012	Ferromagnetic ballast*
FF023D	Plug (2P + E) - 10Amp - 250V AC
FF024D	Socket (2P + E) - 10Amp - 250V AC
FF019C	Connecting and earthing terminals
FF015C	Beam clamp with screws and steel brackets
FF026	Extendable cable with socket and plug - (helical cable) expandable to 5 metre max

**Define type, rating and operating voltage*

Lamps Guide

Guide to Lamps for use in DTS lighting fittings



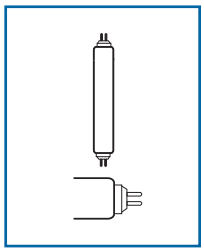
Bi-pin T8/T12 fluorescent tubes

Specifications:

G13 - ø 26mm or ø 38mm
CRI: > 80 - Lm/W: 65 > 93
Colour temperature:
2700K > 6500K
Average life: 6,000 > 10,000 hours
Standard or electronic ballast

Type	Power (W)	Flux (lm)	Cap
TL18W	18	1250	G13
TL36W	36	3350	G13
TL58W	58	5200	G13

Lighting equipment	Reference
Fluorescent	EVS...
Fluorescent	XFR / XFF / XFP...
Fluorescent	EVN...
Fluorescent	EVD...
Weatherproof fluorescent	EVT... FR/FF



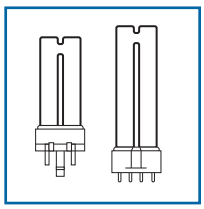
Miniature T5 fluorescent tubes

Specifications:

G5 - ø 15mm
CRI: 60 > 85 - Lm/W: 51 > 59
Colour temperature:
2700K > 4100K
Average life: 6,000 hours
Electronic ballast or inverter

Type	Power (W)	Flux (lm)	Cap
TL8W	8	430	G5

Lighting equipment	Reference
Miniature	XEL / XEP...
Weatherproof miniature	EL...
BAES range	XEL BAES...



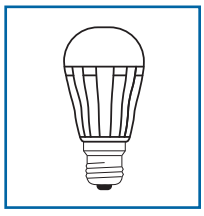
Compact fluorescent lamps

Specifications:

G23 or G11
CRI: 85 > 90 - Lm/W: 57 > 87
Colour temperature:
2700K > 4000K
Average life: 20,000 hours
Standard or electronic ballast, inverter

Type	Power (W)	Flux (lm)	Cap
PL7W	7	400	G23
PL9W	9	600	G23
PL11W	11	900	G23
PL18W	18	1200	2 G11
PL36W	36	2900	2 G11
PL55W	55	4800	2 G11

Lighting equipment	Reference
Miniature	XEL / XEP...
Weatherproof miniature	EL...
Fluorescent	XFR / XFF / XFP



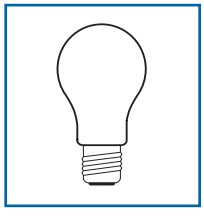
LED lamps

Specifications:

E27
CRI: 80 - Lm/W: 55
Colour temperature: 3000K
Average life: 25,000 hours
Integral electronic ballast
For lamp type - Contact Sales

Power (W)	Flux (lm)	Cap
8	345	E27

Lighting equipment	Reference
Beacon	XFB
Weatherproof beacon	FB



Halogen lamps

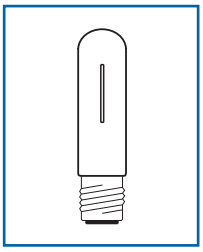
Specifications:

CRI: 100 - Lm/W: 10 > 17
Colour temperature:
2700K
Average life: 1,000 hours
For lamp type - Contact Sales

Power (W)	Flux (lm)	Cap
28	345	E27
70	1200	E27
140	3000	E27

Lighting equipment	Reference
Beacon	XFB
Wellglass	EVX / EVH
Weatherproof beacon	FB

Guide to Lamps for use in DTS lighting fittings



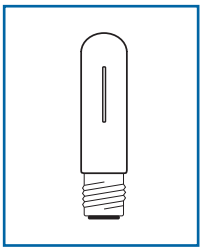
High pressure sodium tubular lamps

Specifications:

CRI: NS - Lm/W: 100 > 120
Colour temperature: 2100K
Average life: 15,000 > 20,000 hours
Mimimum starting temperature: -30°C
Time to full power: 1 > 10mm
With control gear and ignitor

Type	Power (W)	Flux (lm)	Cap
E007	70	6000	E40
P006150SHP	150	15000	E40
P006250SHP	250	28000	E40
P006400SHP	400	48000	E40

Lighting equipment	Reference
Ex d floodlight	XSF...
Weatherproof floodlight	SF...



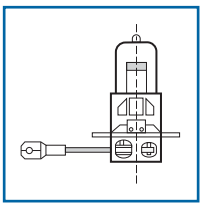
Metal halide tubular lamps

Specifications:

CRI: 65 - Lm/W: 68 > 76
Colour temperature:
4300K > 4600K
Average life: 3,000 > 6,000 hours
Mimimum starting temperature: -25°C
Time to full power: 5 > 10mm
With control gear and ignitor

Type	Power (W)	Flux (lm)	Cap
P006250IM	250	20000	E40
P006400IM	400	42000	E40

Lighting equipment	Reference
Ex d floodlight	XQF...
Weatherproof floodlight	QF...



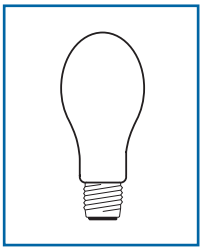
Halogen lamps

Specifications:

H3
CRI: 100 - Lm/W: 25
Colour temperature:
3000K
Average life: 1,000 hours

Type	Power (W)	Flux (lm)	Cap
S00755W	55	1350	H3
S00770W	70	1770	H3

Lighting equipment	Reference
Ex d floodlight	XEF / XHF...
Weatherproof floodlight	EF / HF...



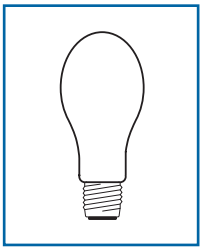
Metal halide elliptical lamps

Specifications:

CRI: 33 > 49 - Lm/W: 50 > 60
Colour temperature:
3900K > 4300K
Average life: 15,000 > 20,000 hours
Mimimum starting temperature: -25°C
Time to full power: 5 > 10mm
With control gear
For lamp type - Contact Sales

Power (W)	Flux (lm)	Cap
250	12700	E40
400	22000	E40

Lighting equipment	Reference
Ex d wellglass	EVX



High pressure sodium elliptical lamps

Specifications:

CRI: NS - Lm/W: 80 > 125
Colour temperature:
2000K > 2200K
Average life:
34,000 hours
Mimimum starting temperature: -25°C
Time to full power: 1 > 10mm
With control gear and ignitor
For lamp type - Contact Sales

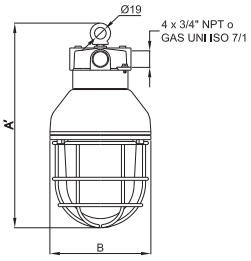
Power (W)	Flux (lm)	Cap
70	6300	E27
150	17000	E40
250	31100	E40
400	55500	E40

Lighting equipment	Reference
Ex d wellglass	EVX / EVH Na...

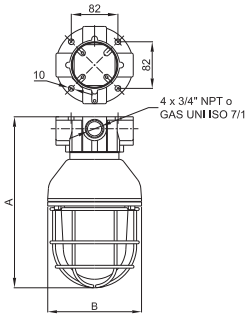
Wellglass

EV Range

EVX / EVH Range



EVH 100 (Halogen)



EVX 100 (Halogen)

EVX Range - Halogen

Type	Rating (W)	Lamps	Nominal (A)	A/A'	Dimensions (mm) B	T° Class	Weight in (kg)
EVX100-00000	70	E27 Halogen	0.45	250/283	150	T4	2.9
EVX200-00000	140	E27 Halogen	0.90	313/346	170	T3	3.5
EVX300-00000	250	E27 Mixed light	1.30	410/463	220	T3	7.2

**Suspension ring mounted version, remove X and add the H, e.g. EVH100-00000*

EC TYPE Examination Certificate:
IECEx CES 07.0004
CESI 12 ATEX 006
GOST R
II 2 GD
Ex d IIC T...°C Gb
Ex tb IIIC T...°C Db IP66

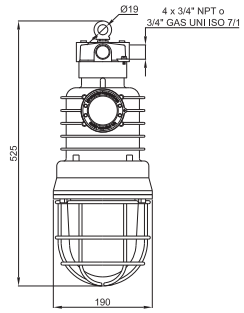
Enclosure
Body in marine grade aluminium alloy (CU<0.05%) Yellow polyurethane paint RAL1003
Borosilicate glass globe
Galvanised steel protection grill
Ingress rating: IP65 (EN60529), neoprene ingress gasket
Stainless steel screws
Temperature
Ambient temperature range:-20°C to +60°C
Surface temperature classification: T4 to T3 (gas)

Power factor
Up to 0.85 (HP Sodium and metal halide)
Cable entries
EVH: four 3/4" NPT entries - fitted 2 plugs
EVX: four 3/4" NPT entries - fitted 2 plugs
Terminal block
Up to 6mm² (rigid wire), 4mm² (flexible wire)

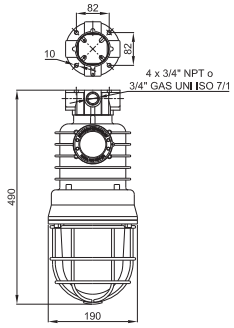
Lamps
Not supplied (order separately)
Fixing
Ceiling screw M8 (EVX)
Suspension ring (EVH)
Spare part: 30° angle wall mounting arm (R018)

EV Range

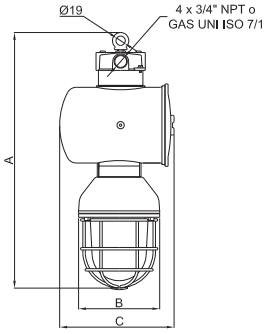
EVXNa / EVXIm / EVHNa / EVHIm Range



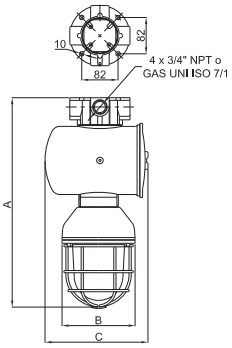
EVH Na (HP Sodium)



EVX Na (HP Sodium)



EVH Im (Metal Halide)



EVX Im (Metal Halide)

EVXNa Range - HP Sodium

Type	Rating (W)	Lamps	Nominal (A)	Dimensions (mm) A/A'	B	T°C Class	Weight in (kg)
EVXNa20-00000	70	E27 Elliptical	0.40	470/500	200	T4	6.5
EVXNa30-00000	150	E40 Elliptical	0.80	600/633	220	T3	9.7
EVXNa40-00000	250	E40 Elliptical	1.30	600/633	220	T3	9.7
EVXNa50-00000	400	E40 Elliptical	2.10	630/670	270	T3	12

**Suspension ring mounted version, remove X and add H, e.g. EVHNa20-00000*

EVXIm Range - Metal Halide

Type	Rating (W)	Lamps	Nominal (A)	Dimensions (mm) A/A'	B	T°C Class	Weight in (kg)
EVXIm40-00000	250	E40 Elliptical	1.30	600/633	220	T3	9.7
EVXIm50-00000	400	E40 Elliptical	2.10	630/670	270	T3	12

**Suspension ring mounted version, remove X and add H, e.g. EVHIm40-00000*

EC TYPE Examination Certificate:

IECEx CES 07.0004
CESI 12 ATEX 006
GOST R
II 2 GD
Ex d IIC T...°C Gb
Ex tb IIIC T...°C Db IP66

Enclosure
Body in marine grade aluminium alloy (CU<0.05%) Yellow polyurethane paint RAL1003
Borosilicate glass globe
Galvanised steel protection grill
Ingress rating: IP65 (EN60529), neoprene ingress gasket
Stainless steel screws
Temperature
Ambient temperature range:-20°C to +60°C
Surface temperature classification: T4 to T3 (gas)

Rated voltages
HP Sodium metal halide
Standard: 230V 50Hz compensated, wirewound ballast
Power factor
Up to 0.85 (HP Sodium and metal halide)
Cable entries
EVH: four 3/4" NPT entries - fitted 2 plugs
EVX: four 3/4" NPT entries - fitted 2 plugs
Variants: Other options available on request
Terminal block
Up to 6mm² (rigid wire), 4mm² (flexible wire)

Lamps
Not supplied (order separately)
Fixing
Ceiling screw M8 (EVX)
Suspension ring (EVH)
Spare part: 30° angle wall mounting arm (R018)

Ex Boxes & Enclosures

Ex Boxes & Enclosures - Selection Guide

Ex Boxes & Enclosures Range

	 **XBL Junction Boxes** Page 104	 **XBL Instrument Boxes** Page 108	 **XBL-A Control Boxes** Page 110	 **XB Instrument Boxes** Page 112	 **XB-A Control Boxes** Page 114	 **XBi Instrument Boxes** Page 116	 **XBi-A Control Boxes** Page 118
Ex	●	●	●	●	●	●	●
IEC Ex	●	●	●	●	●	●	●
Protection Type – Exe	●	●	●	●	●	●	●
Protection Type – Exd							
Protection Type – Exde			●		●		●
Protection Type – Extb	●	●	●	●	●	●	●
Protection Type – Exia			●		●		●
Protection Type – Exeia			●		●		●
Gas Groups – IIB							
Gas Groups – IIC	●	●	●	●	●	●	●
Dust Group – IIIC	●	●	●	●	●	●	●
Zones – Zone 1	●	●	●	●	●	●	●
Zones – Zone 2	●	●	●	●	●	●	●
Zones – Zone 21	●	●	●	●	●	●	●
Zones – Zone 22	●	●	●	●	●	●	●

						
GUV Junction Boxes Page 120	**EFDC Control Boxes** Page 122	**SRC Control Boxes** Page 122	**XMC Control Boxes** Page 122	**EJB Custom Built Panel** Page 124	**GUB Custom Built Panel** Page 128	**EJB-V Boxes with visible breaking** Page 130
●	●	●	●	●	●	●
					●	
●	●	●	●	●	●	●
						●
				●		●
●	●	●	●		●	
					●	●
●	●	●	●	●	●	●
●	●	●	●	●	●	
					●	
					●	

XBL Range

XB100 Junction boxes

Approvals / Characteristics

Features

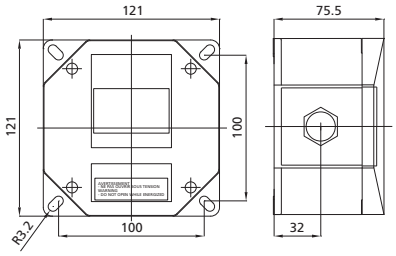
- External mounting points allow for junction boxes to be mounted without removing the lid
- Robust design
- Manufactured from anti static GRP so eliminating any chance of static build up
- Supplied complete with terminals and glands so all on site combinations are covered

Certification & Standards

Approved to: EN60079-0, 60079-7, 60079-11, 60079-31
EC TYPE Examination Certificate: Under 94/9/EC
LCIE 11 ATEX 3049X / IECEx LCI 11.0045X
Ex II 2 G / II 2 D
Ex e II T6 to T4 Gb
Ex tb IIIC T85°C to T135°C Db IP66
T6: -20°C to 40°C
T5: -20°C to 55°C
T4: -20°C to 90°C
Glow wire test: 960°C EN60598-2-22

Dimensions

Technical Specifications



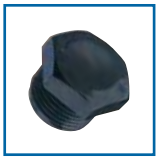
Type	No. of Entries	Glands Material	Glands Gland Size	Glands Thread Size	Plug Provided	No. of Connectors	Terminal Type	Terminal Section	Terminal Connection	Plate Bonding Conductors
XB100-6BV	4	Poly	M20	6-12mm	1 x M20	6	4 x Grey	6mm² bridge x2	Screw/Screw	–
							2 x ⏚	6mm² bridge x2	Screw/Screw	–
XB100-6BR	4	Poly	M20	6-12mm	1 x M20	6	4 x Grey	4mm² bridge	Spring/Spring	–
							2 x ⏚	4mm² bridge	Spring/Spring	–
XB100-10BV	4	Poly	3 x M20	6-12mm	1 x M20	6	4 x Grey	10mm² bridge x2	Screw/Screw	–
			1 x M32	15-21mm			2 x ⏚	10mm² bridge x2	Screw/Screw	–
XB100A-6BV	4	Nickel Plated Brass	M20*	6-12mm Int.	1 x M20	6	4 x Grey	6mm² bridge x2	Screw/Screw	Yes
				8.5-16mm Ext.			2 x ⏚	6mm² bridge x2	Screw/Screw	
XB100A-6BR	4	Nickel Plated Brass	M20*	6-12mm Int.	1 x M20	6	4 x Grey	4mm² bridge x2	Spring/Spring	Yes
				8.5-16mm Ext.			2 x ⏚	4mm² bridge x2	Spring/Spring	
XB100A-10BV	4	Nickel Plated Brass	3 x M20*	6-12mm Int.	1 x M20	6	4 x Grey	10mm² bridge x2	Screw/Screw	Yes
				8.5-16mm Ext.						
			1 x M32*	12-20mm Int.			2 x ⏚	10mm² bridge x2	Screw/Screw	
				16-26mm Ext.						

**for armoured cable*

Gland Size	Gland Type
M20	EXCGM20S
M32	EXCGM32S
M20*	EX04MMC1
M32*	EXN06MSC1

Related Products

XFF Range 28



Nylon Stopping Plugs 176

EVS Range 42

Exe Nylon Gland 168

XBL Range
Junction boxes

Approvals / Characteristics

Features

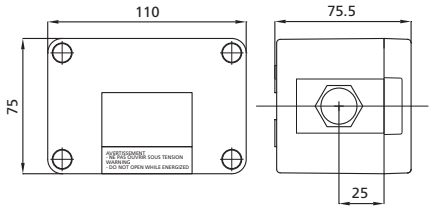
- **Robust design**
- **Manufactured from anti static GRP to eliminate static build up**
- **Supplied complete with terminals and glands so all on site combinations are covered**

Certification & Standards

Approved to: EN60079-0, 60079-7, 60079-11, 60079-31
EC TYPE Examination Certificate: Under 94/9/EC
LCIE 11 ATEX 3049X / IECEx LCI 11.0045X
Ex II 2 G / II 2 D
Ex e II T6 to T4 Gb
Ex ia IIC T6
Ex tb IIIC T85°C to T135°C Db IP66
T6: -20°C to 40°C
T5: -20°C to 55°C
T4: -20°C to 90°C
Glow wire test: 960°C EN60598-2-22

Dimensions

Technical Specifications

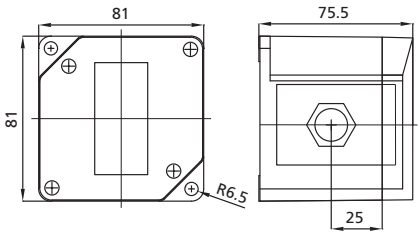


Type	No. of Entries	Glands			Plug Provided	No. of Connectors	Terminal		Plate Bonding Conductors
		Material	Gland Size	Thread Size			Section	Connection	
XBL28-25BR	6	Poly	M20	6-12mm	1 x M20	3	8 x 2, 5mm² deck	Spring/Spring	–
XBL26-25R	4	Poly	M20	6-12mm	1 x M20	3	4 x 2, 5mm² deck	Spring/Spring	–

Gland Size	Gland Type
M20	EXCGM20S

XB10-SI Boxes for connecting SI Sensors (for Instrumentation Box Zone 0 Products)

Dimensions



Type	No. of Entries	Glands			Plug Provided	No. of Connectors	Terminal			Plate Bonding Conductors
		Material	Gland Size	Thread Size			Colour	Section	Connection	
XB10-SI	3	Poly (Blue)	M16	4.5-10mm	1 x M16	6	4 x Blue	2.5mm²	Screw/Screw	–
							2 x V/J	2.5mm²	Screw/Screw	–
XB10A-SI	3	Poly (Blue)	M16	4.5-10mm	1 x M16	6	4 x Blue	2.5mm²	Screw/Screw	Yes
		Nickel Plated Brass	M20*	6-12mm Int.			2 x V/J	2.5mm²	Screw/Screw	
				8.5-16mm Ext.						

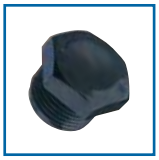
**For armoured cable*

Type	Connection	Nominal Section	Maximum Intensity
XB10-SI	Rigid	0.5 - 6mm²	21A
	Semi Rigid	0.5 - 4mm²	
XB10A-SI	Flexible	0.5 - 4mm²	21A
	Flexible Tip	0.5 - 2.5mm²	

Gland Size	Gland Type
M16	EXCGM16S
M20	EXCGM20S
M20*	EXC03MMC1

Related Products


XFF Range 28


Nylon Stopping Plugs 176


EVS Range 42


Exe Nylon Gland 168

XBL Range
Instrumentation boxes

Approvals / Characteristics

Ex IEC Ex
Exe Extb
G IIC D IIIC
GROUP II
ZONE 1 ZONE 2 ZONE 21 ZONE 22
IP 66 IK 09

Features

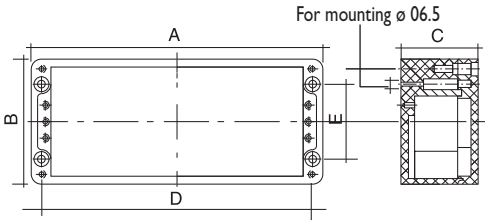
- **Robust design**
- **Manufactured from anti static GRP to eliminate static build up**
- **Can be supplied complete with terminals and glands so all on site combinations are covered**

Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7, 60079-11, 60079-31
EC TYPE Examination Certificate: Under 94/9/EC
LCIE 11 ATEX 3049X / IECEx LCI 11.0045X
Ex II 2 G / D
Ex e or ia or eia IIC T6, T5 or T4 Gb
Ex tb IIIC T85°C to T135°C Db IP66
T4: ≤ -20°C to ≤ +90°C
T5: ≤ -20°C to ≤ +55°C
T6: ≤ -20°C to ≤ +40°C
LCIE 11 ATEX 3035 U / IECEx LCI 11.0028U
Ex e IIC Gb
Ex tb IIIC Db IP66
Glow wire test: 960°C EN60598-2-22

Dimensions

Technical Specifications



Type	Material	Dimensions (mm) A	B	C	D	E	Maximum number of terminals size (in mm²) / In Max (in A) 2.5/21	4/28	6/36	10/50	16/66	35/109	70/167	70/95/100	120/234	185/307	240/350	Weight in (kg)
XBL15	Poly	122	120	91	106	82	13	11	8	6	–	–	–	–	–	–	–	0.8
XBL20	Poly	110	75	75	98	45	11 (Min)	9 (Min)	–	–	–	–	–	–	–	–	–	0.4
XBL25	Poly	220	120	91	204	82	33	28	21	16	–	–	–	–	–	–	–	1.1
XBL35	Poly	360	160	91	340	110	60	50	38	30	25	–	–	–	–	–	–	2.2
XBL40	Poly	405	400	121	380	355	204	171	129	68	58	21	–	–	–	–	–	5.6
XBL45	Poly	400	250	121	380	200	136	114	86	34	29	21	–	–	–	–	–	3.7
XBL55	Poly	400	250	161	380	200	136	114	86	34	29	21	17	–	–	–	–	4.8
XBL65	Poly	600	250	121	580	200	216	180	136	54	45	34	–	–	–	–	–	5.2
XBL75	Poly	405	605	252	370	570	312	261	130	104	86	32	25	19	6	5	5	7.2

Enclosure
Fiberglass reinforced polyester with graphite finish (R<1G Ohm)
Stainless steel unlosable screws
Optional hinges

Rated voltages
Depending on the components fitted in the box (eg:with terminal block: Un max = 500V)

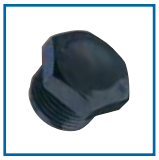
Cable entries
ISO entries and threads
Nylon cable glands for non-armoured cable
Nickel Plated Brass cable glands for armoured and non-armoured cable require brass continuity plate on XBL

Terminal block
Can be supplied with Exe or Exia terminal blocks
The maximum number of terminal blocks per box is dependent on the certification
Stainless steel external earth
Other options available upon request

For full details and design service contact Sales

Related Products


XFF Range 28


Nylon Stopping Plugs 176


EVS Range 42


Exe Nylon Gland 168

XBL-A Range
Standard control boxes

Approvals / Characteristics

Ex IEC Ex

Exe Exde Extb Exia Exeia

G IIC D IIIC

GROUP II

ZONE 1 ZONE 2 ZONE 21 ZONE 22

IP 66 IK 09

Features

- **Wide variety of sizes and functions available as standard products for speed of supply and custom built to meet the end users exact requirements**
- **All manufactured with approved components**
- **Manufactured from anti static GRP to eliminate static build up**

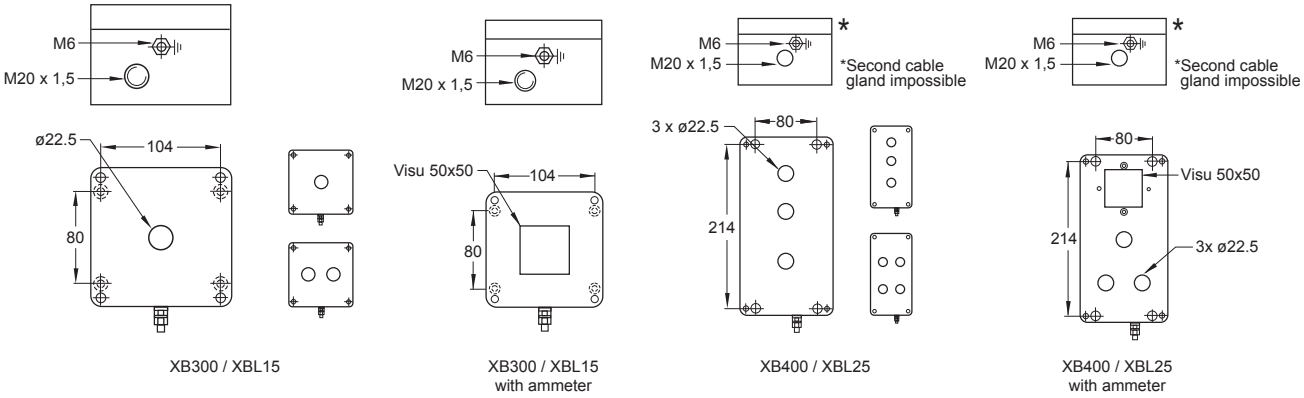
Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7, 60079-11, 60079-31
EC TYPE Examination Certificate: Under 94/9/EC
LCIE 11 ATEX 3049X / IECEx LCI 11.0045X
Ex II 2 G / D
Ex de or e or ia or eia IIC T6, T5 or T4 Gb
Ex tb IIIC T85°C to T135°C Db IP66
T4: ≤ -20°C to ≤ +90°C
T5: ≤ -20°C to ≤ +55°C
T6: ≤ -20°C to ≤ +40°C
Glow wire test: 960°C EN60598-2-22

Dimensions

Technical Specifications

Standard Configurations



	XBL: 122 x 120 x 91 (mm)								XBL: 220 x 120 x 91 (mm)					
	1 Function					2 Functions		Ammeter	3 Functions			4 Functions	Ammeter	
Type	**21A**	**21FA**	**21VA**	**215A**	**215VA**	**22A**	**23A**	**AMP**	**26A**	**38A**	**41A**	**43A**	**22AMP**	**38AMP**
Green Push Button 1 NO	●	–	–	–	–	●	●	–	●	●	●	●	●	●
Emergency Stop PB Push/Pull 1 NC	–	●	–	–	–	–	–	–	●	–	–	–	–	–
Emergency Stop PB Push/Pull 1 NC with Key 455	–	–	●	–	–	–	–	–	–	–	–	–	–	–
Switch 0-1, 2NO	–	–	–	●	–	–	–	–	–	●	–	–	–	●
Switch with Key 0-1, 1 NO	–	–	–	–	●	–	–	–	–	–	–	–	–	–
Red Push Button 1 NC	–	–	–	–	–	●	–	–	–	●	●	●	●	●
Green Indicator Lamp	–	–	–	–	–	–	●	–	●	–	●	●	–	–
Red Indicator Lamp	–	–	–	–	–	–	–	–	–	–	–	●	–	–
Ammeter TC/IA Graduate Scale 0-In-3In dilo IN= to be indicated	–	–	–	–	–	–	–	●	–	–	–	–	●	●
Front Plug	–	–	–	–	–	–	–	–	–	–	–	–	●	–

**Add function to complete part number, e.g. XBL21A*

Enclosure
XBL-A: Fiberglass reinforced polyester with graphite finish (R< 1 Gohm)
Stainless steel unlosable screws
Optional hinges
Protection class: I
Technical Characteristics
AC: U = 415V max. I = 1,75A or U = 240V, I = 3A or U = 120V, I = 6A
DC: U = 415V max. I = 0,165A or U = 250V, I = 0,27A or U = 125V, I = 0,55A

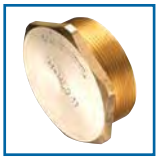
Cable entries
ISO entries and threads
Nylon cable glands for non-armoured cable
Nickel Plated Brass cable glands for non- armoured cable (order separetely)
Nickel Plated Brass cable glands for armoured and non-armoured cable require brass continuity plate on XBL (order separetely)

Components
Drilling on request
Full range indicator lamp with LED Voltage of use 24V-254V AC/DC
Push button (green, red, black, yellow or blue) 1 contact (3 contacts maximum)
Emergency stop 1 contact (3 contacts maximum)
Rotary switch 2 or 3 positions (2 contacts maximum)
Anmeter Ex e: direct 1A or with CT/1Amp. max.

For Accessories see page 132

Related Products


XFF Range 28


Stopping Plugs 176


EVS Range 42


Exe Nylon Gland 168

XB Range
Instrumentation boxes

Approvals / Characteristics

Features

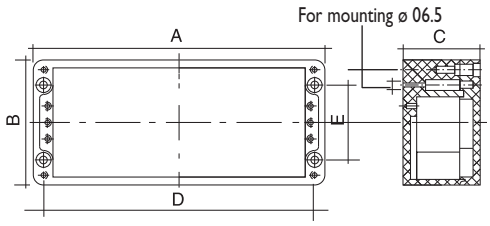
- Robust design and paint finish ideal for marine applications
- Can be supplied complete with terminals and glands so all on site combinations are covered

Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7, 60079-11, 60079-31
EC TYPE Examination Certificate: Under 94/9/EC
LCIE 11 ATEX 3051X / IECEx LCI 11.0046X
Ex II 2 G / D
Ex e or ia or eia IIC T6, T5 or T4 Gb
Ex tb IIIC T85°C to T135°C Db IP66
T4: ≤ -20°C to ≤ +90°C
T5: ≤ -20°C to ≤ +55°C
T6: ≤ -20°C to ≤ +40°C
LCIE 11 ATEX 3046 U / IECEx LCI 11.0043U
Ex e IIC Gb
Ex tb IIIC Db IP66

Dimensions

Technical Specifications



Type	Material	Dimensions (mm) A	B	C	D	E	Maximum number of terminals size (in mm²) / In Max (in A) 2.5/21	4/28	6/36	10/50	16/66	35/109	70/167	70/95/100	120/234	185/307	240/350	Weight in (kg)
XB300	Alu	122	120	91	106	82	13	11	8	6	–	–	–	–	–	–	–	1.0
XB400	Alu	220	120	91	204	82	33	27	21	16	–	–	–	–	–	–	–	1.4
XB510	Alu	160	160	91	140	110	20	17	13	10	–	–	–	–	–	–	–	1.5
XB520	Alu	260	160	91	240	110	40	33	25	20	–	–	–	–	–	–	–	2.0
XB570	Alu	202	232	111	180	180	56	46	36	14	11	9	–	–	–	–	–	2.4
XB700	Alu	360	160	91	340	110	61	50	38	30	–	–	–	–	–	–	–	2.5
XB710	Alu	330	230	111	310	180	108	90	68	54	22	17	15	–	–	–	–	3.4
XB750	Alu	403	312	141	382	262	204	171	129	51	42	21	16	–	–	–	–	6.7
XB950	Alu	600	230	111	580	260	216	180	134	54	45	33	–	19	6	5	5	7.0
XB960	Alu	600	600	202	555	525	432	360	204	162	135	132	39	20	11	9	9	26.0

Enclosure
Aluminium ALSi 12, yellow polyurethane paint RAL 1003 (other colours available on request)
Stainless steel unlosable screws
Optional hinges

Rated voltages
Depending on the components fitted in the box (eg:with terminal block: Un max = 500V)

Cable entries
ISO entries and threads
Nylon cable glands for non-armoured cable
Nickel Plated Brass cable glands for armoured cable (order separetely)

Terminal block
Can be supplied with Exe or Exia terminal blocks
The maximum number of terminal blocks per box is dependent on the certification
Stainless steel external earth
Other options available upon request

For full details and design service contact Sales

Related Products


EJB Range 126


Stopping Plugs 176


EVS Range 42


Exe Nylon Gland 168

XB-A Range
Standard control boxes

Approvals / Characteristics

Features

- Wide variety of sizes and functions available as standard products for speed of supply and custom built to meet the end users exact requirements
- All manufactured with approved components
- Manufactured from aluminium ideal for marine applications

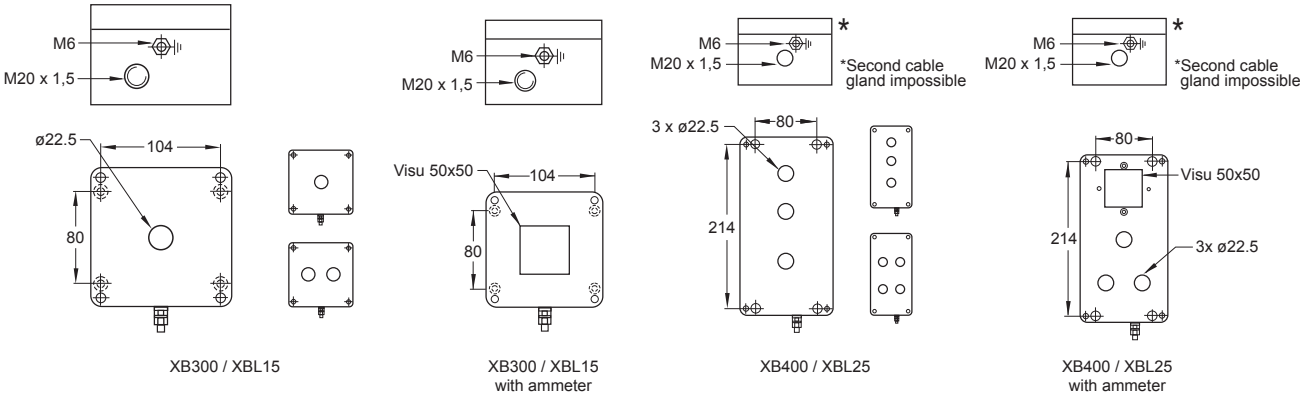
Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7, 60079-11, 60079-31
EC TYPE Examination Certificate: Under 94/9/EC
LCIE 11 ATEX 3051X / IECEx LCI 11.0046X
Ex II 2 G / D
Ex de or e or ia or eia IIC T6, T5 or T4 Gb
Ex tb IIIC T85°C to T135°C Db IP66
T4: ≤ -20°C to ≤ +90°C
T5: ≤ -20°C to ≤ +55°C
T6: ≤ -20°C to ≤ +40°C

Dimensions

Technical Specifications

Standard Configurations



	XB: 122 x 120 x 91 (mm)								XB: 220 x 120 x 91 (mm)					
	1 Function					2 Functions		Ammeter	3 Functions			4 Functions	Ammeter	
Type	**21A**	**21FA**	**21VA**	**215A**	**215VA**	**22A**	**23A**	**AMP**	**26A**	**38A**	**41A**	**43A**	**22AMP**	**38AMP**
Green Push Button 1 NO	●	–	–	–	–	●	●	–	●	●	●	●	●	●
Emergency Stop PB Push/Pull 1 NC	–	●	–	–	–	–	–	–	●	–	–	–	–	–
Emergency Stop PB Push/Pull 1 NC with Key 455	–	–	●	–	–	–	–	–	–	–	–	–	–	–
Switch 0-1, 2NO	–	–	–	●	–	–	–	–	–	●	–	–	–	●
Switch with Key 0-1, 1NO	–	–	–	–	●	–	–	–	–	–	–	–	–	–
Red Push Button 1 NC	–	–	–	–	–	●	–	–	–	●	●	●	●	●
Green Indicator Lamp	–	–	–	–	–	–	●	–	●	–	●	●	–	–
Red Indicator Lamp	–	–	–	–	–	–	–	–	–	–	–	●	–	–
Ammeter TC/IA Graduate Scale 0-In-3In dilo IN= to be indicated	–	–	–	–	–	–	–	●	–	–	–	–	●	●
Front Plug	–	–	–	–	–	–	–	–	–	–	–	–	●	–

**Add function to complete part number, e.g. XB21A*

Enclosure
XB-A: Aluminium ALSi 12, yellow polyurethane paint RAL1003 (other colours on request)
Stainless steel unlosable screws
Protection class: I
Technical Characteristics
AC: U = 415V max. I = 1,75A or U = 240V, I = 3A or U = 120V, I = 6A
DC: U = 415V max. I = 0,165A or U = 250V, I = 0,27A or U = 125V, I = 0,55A

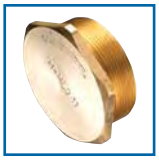
Cable entries
ISO entries and threads
Nylon cable glands for non-armoured cable
Nickel Plated Brass cable glands for armoured cable (order separetely)

Components
Indicator lamp with LED Voltage of use 24V-254V AC/DC
Push button (green, red) 1 contact
Emergency stop 1 contact
Rotary switch 2 positions (2 contacts maximum)
Anmeter Ex e: direct 1A or with CT/1Amp. max.

For Accessories see page 132

Related Products


EJB Range 126


Stopping Plugs 176


EVS Range 42


Exe Nylon Gland 168

XBi Range
Instrumentation boxes

Approvals / Characteristics

Features

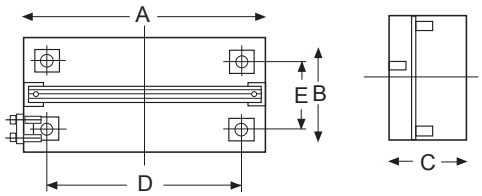
- **Robust design**
- **Manufactured from stainless steel 316 so ideal for offshore applications**
- **Can be supplied complete with terminals and glands so all on site combinations are covered**

Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7, 60079-11, 60079-31
EC TYPE Examination Certificate: Under 94/9/EC
LCIE 11 ATEX 3050X / IECEx LCI 11.0044X
Ex II 2 G / D
Ex e or ia or eia IIC T6, T5 or T4 Gb
Ex tb IIIC T85°C to T135°C Db IP66
T4: ≤ -20°C to ≤ +90°C
T5: ≤ -20°C to ≤ +55°C
T6: ≤ -20°C to ≤ +40°C
LCIE 11 ATEX 3045 U / IECEx LCI 11.0041U
Ex e IIC Gb
Ex tb IIIC Db IP66

Dimensions

Technical Specifications



Type	Material	Dimensions (mm) A	B	C	D	E	Maximum number of terminals size (in mm²) / In Max (in A) 2.5/21	4/28	6/36	10/50	16/66	35/109	70/167	70/95/100	120/234	185/307	240/350	Weight in (kg)
XBi100	316L S/S	100	100	61	60	60	9 (Min)	8 (Min)	–	–	–	–	–	–	–	–	–	0.8
XBi150	316L S/S	150	150	81	110	110	19	16	12	10	–	–	–	–	–	–	–	0.4
XBi200	316L S/S	200	100	61	160	110	29 (Min)	24 (Min)	–	–	–	–	–	–	–	–	–	1.1
XBi300	316L S/S	300	200	81	260	160	98	80	60	25	–	–	–	–	–	–	–	2.2
XBi400	316L S/S	400	300	161	360	260	138	116	86	70	56	21	17	–	–	–	–	5.6
XBi500	316L S/S	500	400	161	460	360	356	296	224	135	87	46	14	11	–	–	–	3.7
XBi600	316L S/S	600	200	121	560	360	218	182	136	55	45	34	–	–	–	–	–	4.8

Enclosure
316L stainless steel,1.25mm thick
Stainless steel unlosable screws
Optional hinges

Rated voltages
Depending on the components fitted in the box (eg:with terminal block: Un max = 500V)

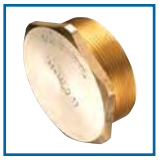
Cable entries
ISO entries and threads
Nylon cable glands for non-armoured cable
Nickel Plated Brass cable glands for non-armoured cable (order separately)

Terminal block
Can be supplied with either Exe or Exia Terminal blocks
The maximum number of terminal blocks per box is dependent on the certification
Stainless steel external earth
Other options available upon request

For full details and design service contact Sales

Related Products


EJB Range 126


Stopping Plugs 176


EVS Range 42


Exe Nylon Gland 168

XBi-A Range
Standard control boxes

Approvals / Characteristics

Features

- **Robust design**
- **Manufactured from stainless steel 316 so ideal for offshore applications**

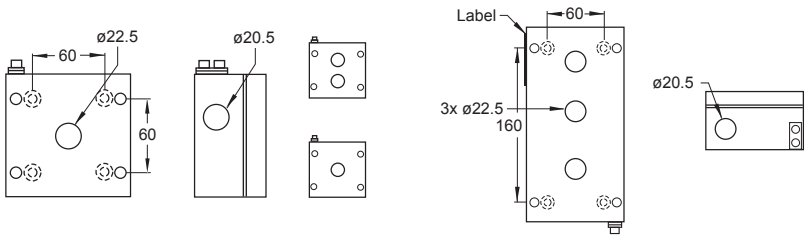
Certification & Standards

Approved to: EN60079-0, 60079-1, 60079-7, 60079-11, 60079-31
EC TYPE Examination Certificate: Under 94/9/EC
LCIE 11 ATEX 3050 / IECEx LCI 11.0044
Ex II 2 G / D
Ex de or e or ia or eia IIC T6, T5 or T4 Gb
Ex tb IIIC T85°C to T135°C DB IP66
Ex de IIC T6, T5 or T4 IP66
T4: ≤ -20°C to ≤ +90°C
T5: ≤ -20°C to ≤ +55°C
T6: ≤ -20°C to ≤ +40°C
Glow wire test: 960°C EN60598-2-22

Dimensions

Technical Specifications

Standard Configurations



XBi100 XBi200

	XBi: 100 x 100 x 61 (mm)							XBi: 200 x 100 x 61 (mm)			
	1 Function					2 Functions		3 Functions			4 Functions
Type	**21A**	**21FA**	**21VA**	**215A**	**215VA**	**22A**	**23A**	**26A**	**38A**	**41A**	**43A**
Green Push Button 1 NO	●	–	–	–	–	●	●	●	●	●	●
Emergency Stop PB Push/Pull 1NC	–	●	–	–	–	–	–	●	–	–	–
Emergency Stop PB Push/Pull 1NC with Key 455	–	–	●	–	–	–	–	–	–	–	–
Switch 0-1, 2NO	–	–	–	●	–	–	–	–	●	–	–
Switch with Key 0-1, 1NO	–	–	–	–	●	–	–	–	–	–	–
Red Push Button 1 NC	–	–	–	–	–	●	–	–	●	●	●
Green Indicator Lamp	–	–	–	–	–	–	●	●	–	●	●
Red Indicator Lamp	–	–	–	–	–	–	–	–	–	–	●
Ammeter TC/IA Graduate Scale 0-In-3In dilo IN= to be indicated	–	–	–	–	–	–	–	–	–	–	–
Front Plug	–	–	–	–	–	–	–	–	–	–	–

**Add function to complete part number, e.g. XBi21A*

Enclosure
XBi-A: 316L stainless steel,
1.25mm thick
Stainless steel unlosable screws
Protection class: I
Technical Characteristics
AC: U = 415V max. I = 1,75A or U = 240V, I = 3A or U = 120V, I = 6A
DC: U = 415V max. I = 0,165A or U = 250V, I = 0,27A or U = 125V, I = 0,55A

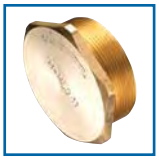
Cable entries
ISO entries and threads
Nylon cable glands for non-armoured cable
Nickel Plated Brass cable glands for armoured cable (order seperately)

Components
Full range indicator lamp with LED Voltage of use 24V-254V AC/DC
Push button (green, red, black, yellow or blue) 1 contact (2 contacts maximum)
Emergency stop 1 contact (2 contacts maximum)
Rotary switch 2 or 3 positions (2 contacts maximum)
Anmeter Ex e: direct 1A or with CT/1Amp. max.

For Accessories see page 132

Related Products


EJB Range 126


Stopping Plugs 176


EVS Range 42


Exe Nylon Gland 168

GUV Range
Aluminium junction boxes

Approvals / Characteristics

Ex
Exd
G IIC
GROUP II
ZONE 1
ZONE 2
IP 56
IK 09

Features

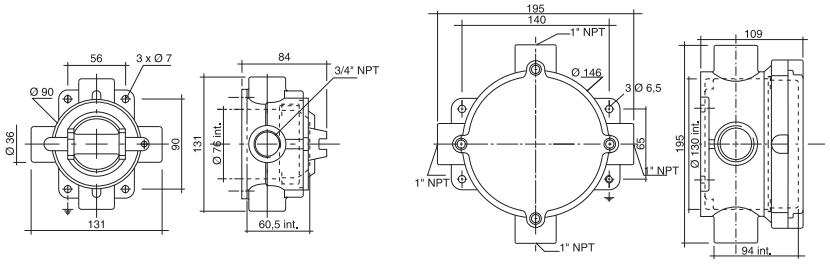
- External mounting points allow junction boxes to be mounted without removing the lid
- Robust design in cast aluminium
- Bright yellow paint (RAL-1003) for high visibility

Certification & Standards

Approved to: EN60079-0, 60079-1
EC TYPE Examination Certificate:
LCIE 00 ATEX 6022 / IECEx in progress
Ex II 2 G
Ex d IIC T6 to T4
LCIE 00 ATEX 6022
T6: ≤ -20°C to ≤ +40°C
T5: ≤ -20°C to ≤ +55°C
T4: ≤ -20°C to ≤ +60°C

Dimensions

Technical Specifications



Type	Number of entries	Number of terminals (optional)	Weight (Kg)
GUVC26-00000	2 -c-	4 x 2.5 to 6mm²	0.6
GUVC36-00000	2 -c-	Max 8 x 25mm² or 6 x 35mm²	1.6
GUVL26-00000	2 i-	4 x 2.5 to 6mm²	0.6
GUVL36-00000	2 i-	Max 8 x 25mm² or 6 x 35mm²	1.6
GUVT26-00000	3 T	4 x 2.5 to 6mm²	0.6
GUVT36-00000	3 T	Max 8 x 25mm² or 6 x 35mm²	1.7
GUVX26-00000	4 X	4 x 2.5 to 6mm²	0.7
GUVX36-00000	4 X	Max 8 x 25mm² or 6 x 35mm²	1.8

Enclosure
Aluminium alloy body EN 1706 AC - 43100KF - AISI 10Mg
Yellow polyurethane paint RAL1003
Stainless steel screws

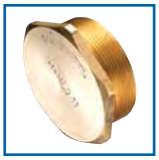
Cable entries
Standard: Two to four 3/4" NPT entries
Cable glands and plugs can be ordered seperately

Terminals
GUV26:
4 terminals up to 6mm² (order separately)
4 interconnected earthing terminals with one 4mm clamping screws per each terminal
GUV36:
Terminals (order separately)
Maximum number 8 x 25mm² terminals
or 6 x 35mm² terminals

Other options (order separately)
Terminal 4 x 6mm² (G03)
Terminal 6 x 4mm² (G005)
Terminal 10 x 4mm² (G006)
Terminal 4 x 10mm² (G009)
Terminal 5 x 10mm² (G0010)
Terminal 4 x 16mm² (G0011)
Terminal 8 x 16mm² (G0015)

Related Products


EXL Conduit 148


Stopping Plugs 176


XFF Range 28


Ex d Cable Gland 162

EFDC / SRC / XMC Range
Control stations

Approvals / Characteristics

Ex

Exd

G IIC

GROUP II

ZONE 1 ZONE 2

IP 56 IK 09

Features

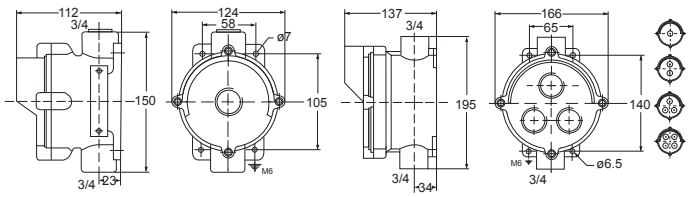
- **Ex d approved for hazardous locations**
- **Manufactured from cast aluminium and machined with a cylindrical spigot joint flame path**

Certification & Standards

Approved to: EN60079-0, 60079-1
EC TYPE Examination Certificate:
LCIE 00 ATEX 6022 / IECEx in progress
Ex II 2 G
Ex d IIC T6 to T4
Type (without light): EFDC, SRC
T6: ≤ -20°C to ≤ +40°C
T5: ≤ -20°C to ≤ +55°C
T4: ≤ -20°C to ≤ +60°C
Type (with light): EFDC, SRC
T6: ≤ -20°C to ≤ +40°C

Dimensions

Technical Specifications



SRC / EFDC (enclosure size 1)

SRC / EFDC (enclosure size 2)

XMC 36 (enclosure size 3)

Type EFDC	21	25	41	43	44	22	40	42	38	23	21F	21V	21G	21P	24	23A	39	37	36
Green Push Button NO+NC	●	–	●	●	●	●	●	–	●	●	–	–	–	–	–	–	–	–	–
2 x Green Push button NO+NC	–	–	–	–	–	–	–	●	–	–	–	–	–	–	–	–	–	–	–
Push/Pull Emergency Button NO+NF	–	●	–	–	–	–	–	–	–	–	●	–	–	–	–	–	–	–	–
Emergency Key Operated Push Button 455 NO+NF	–	–	–	–	–	–	–	–	–	–	–	●	–	–	–	–	–	–	–
Break Glass Automatic Cut-off NO+NC	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	–	–	–	–
Potentiometer Driver	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	–	–	–
Green Indicator Lamp 230V	–	●	●	●	●	–	–	–	–	●	–	–	–	–	●	●	●	●	–
Red Push Button NO+NC	–	–	●	●	●	●	●	–	●	–	–	–	–	–	–	–	–	–	–
2 x Red Push Button NO+NC	–	–	–	–	–	–	–	●	–	–	–	–	–	–	–	–	–	–	–
Red Indicator Lamp 230V	–	–	–	●	–	–	–	–	–	–	–	–	–	–	–	●	●	–	–
Push Button Black NO+NC	–	–	–	–	●	–	●	–	–	–	–	–	–	–	–	–	–	–	–
Rotary Switch Unit 16A 2 NO	–	–	–	–	–	–	–	–	●	–	–	–	–	–	–	–	●	●	–
2 x Rotary Switch Unit 16A 2 NO	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●

Type SRC Rotary Switch Unit	215	415	330	340	215V
16A 2NO	●	–	–	–	●
32A 3NO Lockable	–	–	●	–	–
40A 3NO Lockable	–	–	–	●	–
With Key 455	–	–	–	–	●
16A 4 NO	–	●	–	–	–

Type XMC	
XMC36	1 display diameter 80 with base plate - no equipment

**Add function to complete part number, e.g. EDFC21, SRC215, XMC36*

Enclosure
Body in marine grade aluminium alloy
EN1706 AC - 43100KF - AISI 10Mg
Polyurethane paint: yellow RAL1003 except EFDC21G (red paint RAL3001)
Stainless steel screws
Volume < 2 dm^3

Power supply
Maximum operating power: 400 Vac max for the indicator lamps
6 A max for the push buttons
40 A max for the rotary switches
For indicator and potentiometer: please enquire

Cable entries
Standard: Two 3/4"NPT one being equipped with one Nickel Plated Brass plug
Cable glands ordered separately

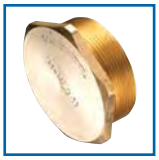
Recommendation:
For proper selection of cable glands in hazardous locations, refer to EN60079-14

Terminal blocks
Directly connected to the accesory / component, as required.

For Accessories see page 132

Related Products

EXL Conduit 148



Stopping Plugs 176

XFF Range 28

Custom Built Enclosures

Custom built Ex d enclosures & panels

DTS Ex d control panels are constructed & tested according to ATEX protection type Ex d.

Available with a wide variety of components such as switches, contactors and relays, which can be mounted into explosionproof enclosures constructed to keep internal explosions from igniting the surrounding atmosphere.

Ex d control panels are usually custom-built in cooperation with the customer to suit their specific application requirements.

EJB Range
Custom built panels

Approvals / Characteristics

Ex
Exd
G IIB
GROUP II
ZONE 1
ZONE 2
IP 56

Features

- **Robust construction**
- **Wide variety of sizes**
- **Large choice of electrical components**
- **Customised to user's specification**

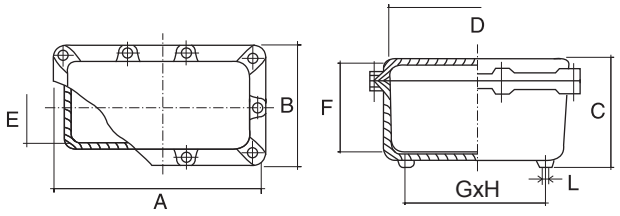
Certification & Standards

Approved to: EN60079-0, 60079-1
EC TYPE Examination Certificate:
INERIS 11 ATEX 0050X
Ex II 2 G
Ex d IIB T5 or T6 Gb
Ex II 2 (1) G
Ex d (ia IIC Ga, or ib, or ib IIC, or ia Ga) IIB T6 Gb
Safe operating temperature range: -20°C to +40°C

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

Dimensions

Technical Specifications



Type	External A	B	C	Internal D	E	F	Fixing / Mounting G	H	L	Internal Plate (mm)	Weight (kg)
EJB0	200	145	130	145	90	90	140	85	M6	138 x 85	4
EJB1	302	190	170	225	115	130	200	100	M6	215 x 110	8
EJB2	295	230	165	225	165	132	185	130	M6	220 x 160	9
EJB4	410	300	167	340	220	127	290	190	M8	320 x 210	16
EJB5	475	295	220	390	207	179	335	178	M8	380 x 200	18
EJB8	625	360	250	525	260	195	480	210	M8	510 x 250	33
EJB11	595	505	275	485	395	207	436	335	M10	470 x 380	55
EJB12	805	435	315	690	345	246	605	262	M12	675 x 325	75
EJB13	832	612	323	720	435	252	628	405	M12	790 x 470	92

Enclosure
Marine grade aluminium alloy type EN 1706 AC - 43100KF - AISI 10Mg
Stainless steel external earth
Stainless steel screws
Hinged door if command buttons are on the panel (except EJB0)

Cable entries
NPT or ISO entries and threads as requested: Nickel Plated Brass, or Stainless Steel cable glands can be supplied (order separately) for either armoured, or non-armoured cables

Switches and Indicators
On request Rotary switches: 1 to X positions two-way, spring return, layout on request (eg : 3NO + 1NC, 1 NO / Position...)
Push buttons: Colours: green, red, black, yellow, blue
Mechanical reactivation
Contacts: maximum 6 contacts as specified, NO or NC Indicator lamps: Colours: green, red, white, yellow, blue, power supply not exceeding 400V

LEDs
Potentiometer: please advise: value in Ohms, power in W, Number of turns, linear or logarithmic
For all components: legends as requested
Isolating switch/circuit-breaker: up to 800A
Meters behind visual display: ammeter, voltmeter or others upon request

Recommendation
For installations in either Zone 1 or in the presence of Group IIC gases, barrier glands are required. Please refer to EN-60079-14 (except EJB0/< 2 dm3)

Fixing
4 threaded holes on the back plate (see table)
Frame or supporting feet on request

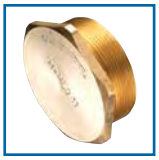
Colour (standard)
- EJB - Yellow offshore, RAL 1003

Colour options
- EJB - Grey, RAL 7035
- EJB - Black, RAL 9004
- EJB - Hammered Blue, RAL 5015
- EJB - Red, RAL 3001
- EJB - Blue, RAL 5010
- EJB - Green, RAL 6032
- EJB - White, RAL 9010

For Accessories see page 132

Related Products


EXL Conduit 148


Stopping Plugs 176


GUV Range 120

GUB Range
Custom built panels

Approvals / Characteristics

Features

- **IIC boxes**
- **Anti-corrosion and marine protection**
- **Large internal volume**
- **Quick and easy opening and closing**

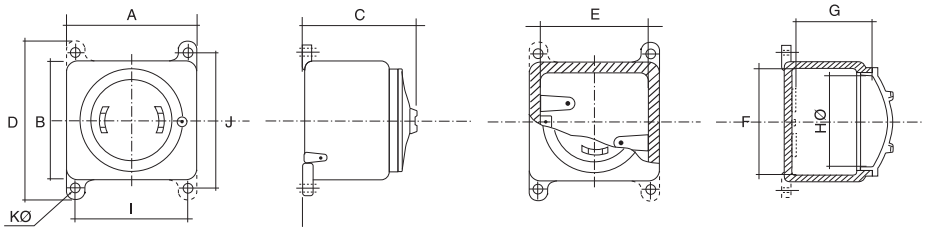
Certification & Standards

Approved to: EN 60079-0,60079-1, 61241-0, 61241-1
EC TYPE Examination Certificate:
CESI 01 ATEX 036
Ex II 2 G / D
Ex d IIC T6 to T5
Ex tD A21 IP66 T 85°C to T 100°C
T6: -20°C to +40°C
T5: -20°C to +55°C

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

Dimensions

Technical Specifications



Cable Glands and Plugs Per Side

	1/2"				3/4"				1"				1/4"				1 1'2"				2"				2 1/2"			
Type	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**
GUB0AS	3	2	1	3	2	1	1	2	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
GUB0BS	3	3	2	3	3	3	2	3	2	2	1	2	2	1	1	2	1	1	1	1	–	–	–	–	–	–	–	–
GUB01CS	5	4	3	5	4	4	3	4	3	2	2	3	2	1	1	2	2	1	1	2	1	1	1	1	–	–	–	–
GUB02DS	7	6	6	7	7	6	6	7	5	4	4	2	3	2	2	3	2	2	2	2	2	1	1	2	1	1	1	1
GUB03ES	15	15	15	15	15	14	13	15	8	8	7	8	8	7	6	8	5	4	4	5	3	2	2	3	2	2	1	2
GUB04FS	26	26	26	26	20	19	19	20	14	13	13	14	10	9	9	10	10	9	9	10	8	7	7	8	5	4	4	5

	External Dimensions (mm)				Internal Dimensions (mm)				Fixing			
Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**Kø**	**Weight (kg)**
GUB0AS	120	120	116	166	96	96	54	75	100	145	9	2
GUB0BS	150	150	130	205	126	126	68	115	126	174	10	3
GUB01CS	174	174	140	218	146	146	75	115	150	195	10	4
GUB02DS	230	230	165	302	204	204	85	175	196	267	14	7
GUB03ES	276	276	217	346	274	256	134	220	236	316	14	12
GUB04FS	430	430	290	522	398	398	155	360	390	480	14	30

Enclosure
Marine aluminium alloy body (CU<0.05%)
Ingress rating IP66 (EN60529)
Neoprene gasket
Stainless steel screws
Protection class: I

Cable entries
NPT or ISO threaded entries according to specification
The fixture is supplied with non-barrier cable glands.
For installations in either Zone 1, or in the presence of Group IIC gases, barrier glands are required.
Please refer to EN-60079-14.
Fixing
By fixing lugs incorporated to the box

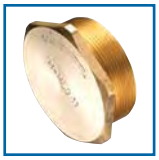
Colour (standard)
- GUB***-00000 - Yellow offshore, RAL 1003

Colour options
- GUB***-B0000 - Grey, RAL 7035
- GUB***-C0000 - Black, RAL 9004
- GUB***-D0000 - Hammered Blue, RAL 5015
- GUB***-F0000 - Red, RAL 3001
- GUB***-G0000 - Blue, RAL 5010
- GUB***-J0000 - Green, RAL 6032
- GUB***-M0000 - White, RAL 9010

For Accessories see page 132

Related Products


EXL Conduit 148


Stopping Plugs 176


GUV Range 120

EJB-V Range

Boxes with visible breaking

Approvals / Characteristics

Ex

Exd

G IIB

GROUP II

ZONE 1 ZONE 2

IP 56

Features

- **Boxes provided with load-break switch**
- **Visible breaking**
- **Switch off and on under load and provide safety cut off**
- **IIB control panels**

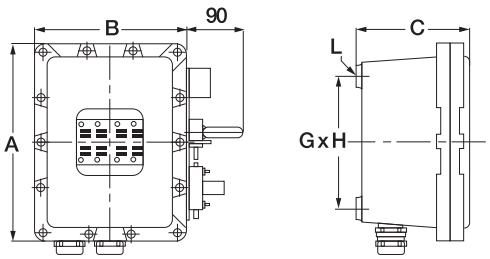
Certification & Standards

Approved to: EN60079-0, 60079-1
EC TYPE Examination Certificate:
INERIS 11 ATEX 0050X
Ex II 2 G
Ex d IIB T5 or T6 Gb
Ex II 2 (1) G
Ex d IIB T6 Gb
Safe operating temperature range: -20°C to +40°C

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

Dimensions

Technical Specifications



Type	Dimensions (mm) A	B	C	G	H	L	Display Size (mm)	Switching	Gland Number	Plugs	Weight (kg)
EJB2-V1	295	230	165	132	185	M6	100 x 100	3 x 50A	2 x 3/4"	1 x 3/4"	9
EJB2-V2	295	230	165	132	185	M6	100 x 100	4 x 50A	2 x 3/4"	1 x 3/4"	9
EJB2-V3	295	230	165	132	185	M6	100 x 100	3 x 80A	2 x 3/4"	1 x 3/4"	9
EJB2-V4	295	230	165	132	185	M6	100 x 100	4 x 80A	2 x 3/4"	1 x 3/4"	9
EJB4-V1	410	300	167	190	290	M8	100 x 100	3 x 125A	2 x 1"	1 x 3/4"	18
EJB4-V2	410	300	167	190	290	M8	100 x 100	4 x 125A	2 x 1"	1 x 3/4"	18
EJB4-V3	410	300	167	190	290	M8	50 x 200	6 x 50A	4 x 3/4"	1 x 3/4"	18
EJB4-V4	410	300	167	190	290	M8	50 x 200	8 x 50A	4 x 3/4"	1 x 3/4"	18
EJB4-V5	410	300	167	190	290	M8	50 x 200	6 x 80A	4 x 3/4"	1 x 3/4"	18
EJB4-V6	410	300	167	190	290	M8	50 x 200	8 x 80A	4 x 3/4"	1 x 3/4"	18
EJB8-V1	625	360	250	210	480	M8	50 x 200	6 x 125A	4 x 1"	1 x 3/4"	35
EJB8-V2	625	360	250	210	480	M8	50 x 200	8 x 125A	4 x 1"	1 x 3/4"	35
EJB8-V3	625	360	250	210	480	M8	100 x 100	3 x 200A	2 x 1"	1 x 3/4"	55
EJB11-V1	595	505	275	355	436	M10	50 x 200	3 x 400A	2 x 2"	1 x 3/4"	55
EJB11-V2	595	505	275	355	436	M10	50 x 200	4 x 400A	2 x 2"	1 x 3/4"	55
EJB13-V1	825	605	320	405	628	M12	50 x 200	3 x 400A	2 x 2"	1 x 3/4"	95
EJB13-V2	825	605	320	405	628	M12	50 x 200	4" 4 x 400A	2 x 2"	1 x 3/4"	95

Enclosure
Marine grade aluminium alloy type AS10GY30
Toughened glass display
Stainless steel external earth stud
Stainless steel screws
Hinged door standard on EJB versions of EJB8-11-12-13, (optional on other EJB versions)
Protection class: I

Cut-out equipment
"Sider" load-breaker, 50A to 400A,
3 or 4-poles visible breaking
(up to 800A on request)
Padlockable handle
Options: security key, auxiliary contacts mechanical indicator

Cable entries
NPT or ISO entries and threads as requested
Brass, Nickel Plated Brass, or Stainless Steel cable glands can be supplied (order separately) for either armoured, or non-armoured cables.

Fixing
4 threaded holes on the back plate (see table)

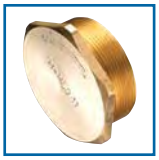
Colour (standard)
- EJB-V*-00000 - Yellow offshore, RAL 1003

Colour options
- EJB-V*-B0000 - Grey, RAL 7035
- EJB-V*-C0000 - Black, RAL 9004
- EJB-V*-D0000 - Hammered Blue, RAL 5015
- EJB-V*-F0000 - Red, RAL 3001
- EJB-V*-G0000 - Blue, RAL 5010
- EJB-V*-J0000 - Green, RAL 6032
- EJB-V*-M0000 - White, RAL 9010

For Accessories see page 132

Related Products


EXL Conduit 148


Stopping Plugs 176


GUV Range 120

Box Accessories

Spare Components for Control Panels & Enclosures

Components for Control Station

Complete Units for DTS control stations and boxes

(SRC - EFDC Mod 1 & 2, XBL, XB, XBi, EJB)

Type	Function
BPN10	Push button Black NO+NC
BPR10	Push button Red NO+NC
BPV10	Push button green NO+NC
REA20	Reset button (customised for EJB ranges)
BCP30	Simple emergency stop push button NO+NC
BCP40	Push/Pull button Emergency Stop NO+NC
BCP50	Push button, unlockable by key N° 455
PRC10	Rotary switch 2x16A 0-1 2NO
PRC20	Rotary switch operated by key No 455 2x 16A 0-1 2NO
PRC30	Rotary switch 2x16A 1-2 NO+NC
PRC40	Rotary switch 2x16A 1-0-2 NO-0-NC
PRC50	Rotary switch 2x16A 0-1-2-0-NO-NO
PRC60	Rotary switch 4x16A 0-1 4NO
PRC70	Lockable rotary switch 3x25A 3NO
VAV10	Indicator lamp 230V - Green
VAR10	Indicator lamp 230V - Red
VAC10	Indicator lamp 230V - White
VAJ10	Indicator lamp 230V - Yellow
VAB10	Indicator lamp 230V - Blue

Options

Rotary Switch Options:
- Spring return (40A max for SRC)
- Configuration on request (eg : 3NO+1NF, 1 NO/Position...)

Push button options:
- Colours: Green, Red, Black,Amber, Blue
- Contacts (model 1 & EJB):Max 3 contacts according to request NO or NC
- Contacts (model 2): Max 6 contacts according to request NO or NC

Indicator Lamp Options:
Other voltages are available on request up to 400V
- LED

For all products:
Legends as requested

Spare Parts for the complete units

(EFDC / SRC or EJB as specified)

Type	Function
PB01	Contacts NO+NC for push button switches
PR01	Rotary switch unit 2x16A 0-1 2NO
PR02	Rotary switch unit 2x16A 1-2 NO+NC
PR03	Rotary switch unit 2x16A 1-0-2 NO-0-NC
PR04	Rotary switch unit 2x16A 0-1-2-0-NO-NO
PR05	Rotary switch unit 4x16A 0-1 4NO
PR06	Rotary switch unit 3x25A 0-1 3NO
PR07	Rotary switch top
PR07V	Key operated switch top
BP02	Cap for push switch Green
BP03	Cap for push switch Red
BP04	Cap for push switch Black
BP05	Cap for mushroom push/pull switch
BP05V	Cap for key operated mushroom push switch
DE01	Indicator lamp lens Green
DE02	Indicator lamp lens Red
DE03	Indicator lamp lens White
DE04	Indicator lamp lens Amber
DE05	Indicator lamp lens Blue
DE10	Lamp holder for BA9S lamp

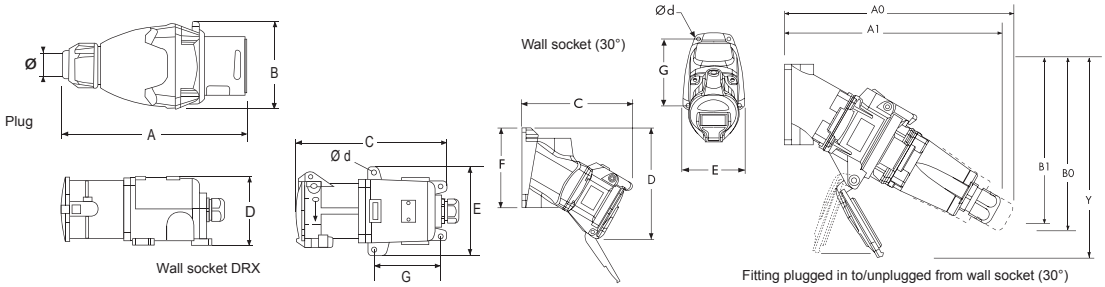
Options

Rotary Switch Options:
- Spring return (40A max for SRC)
- Configuration on request (eg : 3NO+1NF, 1 NO/Position...)

For all products:
- Legends as requested

Polyester / Aluminium Plug & Socket (Safe Disconnect)

DRX / DPX Range



Socket Type DRX	Plug Type DPX	Poles	Nominal Current (A)	Power Supply (V)	Cable Gland	Dimensions (mm) A	B	ø	C	D	E	F	G	ø d	AI	A0	BI	B0	Y	Weight (kg) Socket	Plug
116E250	116E250	1P+N+PE	20	220/250	M20	125	58	8-13	127	131	68	90	78	4.5	204	215	162	168	180	0.3	0.16
216X24	216X24	2P	20	20 - 24	M20	125	58	8-13	127	131	68	90	78	4.5	204	215	162	168	180	0.3	0.16
316E250	316E250	3P+PE	20	130/230	M20	125	58	8-13	127	131	68	90	78	4.5	204	215	162	168	180	0.3	0.16
316E415	316E415	3P+PE	20	380/440	M20	125	58	8-13	127	131	68	90	78	4.5	204	215	162	168	180	0.3	0.16
416E415	416E415	3P+N+PE	20	380/440	M20	125	58	8-13	127	131	68	90	78	4.5	204	215	162	168	180	0.3	0.16
132E250	132E250	1P+N+PE	32	220/250	M25	145	68	13-19	138	132	84	107	70	6	214	229	162	171	200	0.46	0.24
232X24	232X24	2P	32	20 - 24	M25	145	68	13-19	138	132	84	107	70	6	214	229	162	171	200	0.46	0.24
332E250	332E250	3P+PE	32	150/230	M25	145	68	13-19	138	132	84	107	70	6	214	229	162	171	200	0.46	0.24
332E415	332E415	3P+PE	32	380/440	M25	145	68	13-19	138	132	84	107	70	6	214	229	162	171	200	0.46	0.24
432E415	432E415	3P+N+PE	32	380/440	M25	145	68	13-19	138	132	84	107	70	6	214	229	162	171	200	0.46	0.24
163E250	163E250	1P+N+PE	63	220/250	M32	152	83	17-25	165	162	89	122	88	6.5	233	259	184	199	236	0.64	0.42
263X24	263X24	2P	63	20 - 24	M32	152	83	17-25	165	162	89	122	88	6.5	233	259	184	199	236	0.64	0.42
363E415	363E415	3P+PE	63	380/440	M32	152	83	17-25	165	162	89	122	88	6.5	233	259	184	199	236	0.64	0.42
463E415	463E415	3P+N+PE	63	380/440	M32	152	83	17-25	165	162	89	122	88	6.5	233	259	184	199	236	0.64	0.42

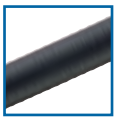
Socket Type DRX	Plug Type DPX	Poles	Nominal Current (A)	Power Supply (V)	Cable Gland	Dimensions (mm) A	B	ø	C	D	E	F	G	ø d	AI	A0	BI	B0	Y	Weight (kg) Socket	Plug
3125E415	3125E415	3P+T	125	380/440	M50	220	146	27-41	378	175	221	–	174	9.5	513	–	175	–	–	8.0	2.6
4125E415	4125E415	3P+N+T	125	380/440	M50	220	146	27-41	378	175	221	–	174	9.5	513	–	175	–	–	8.0	2.6

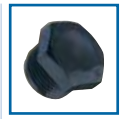
Approved to: IEC 60079-0, 60079-1, 60079-7, 61241-0, 61241-1 60309-1, 60309-4
EC TYPE Examination Certificate: under new directive 94/9/EC
20A versions: LCIE 99 ATEX 6027X, IECEx LCI09.005X, ≤ -40°C to ≤ +60°C T5 T90°C, ≤ -40°C to ≤ +40°C T6 T70°C
32A versions: LCIE 05 ATEX 6149, IECEx LCI09.0006, ≤ -40°C to ≤ +60°C T4 T98°C, ≤ -40°C to ≤ +40°C T6 T78°C
63A versions: LCIE 05 ATEX 6150, IECEx LCI09.0007, ≤ -40°C to ≤ +60°C T4 T107°C, ≤ -40°C to ≤ +40°C T5 T87°C
125A versions: LCIE 04 ATEX 6038, IECEx LCI09.0015, ≤ -40°C to ≤ +60°C T5 T90°C, ≤ -40°C to ≤ +50°C T6 T80°C
ATEX II 2 G / D, IP6x Exd e II C tDA21 **Ingress protection:** IP66/67 (PBT), IP65 (aluminium)

Conduit & Glands


H-M50 11

Conduit Fittings - Selection Guide

	For use with Nylon Conduits			For use with Liquid Tight Conduits					
									
	Nylon Conduits Page 138	**Metallic Fittings** Page 140	**Nylon Fittings** Page 142	**Liquid Tight Conduits** Page 148	**Group 1 Glands** Page 152	**Group 1 90° Elbow Glands** Page 154	**Group 1 Univeral Fittings** Page 155	**Group 1 Universal Swivel Fittings** Page 157	**Group II Glands** Page 158
Ex	●	●	●		●	●	●	●	●
IEC Ex	●	●			●	●	●	●	●
ETL Intertek									
CSA C US					●	●	●	●	
UL									
PG	●	●			●	●	●	●	
INMETRO	●	●			●	●	●	●	
Gas Group Protection Type – Exe	●	●							
Gas Group Protection Type – Exd									
Gas Group Protection Type – Exde					●	●	●	●	●
Gas Group Protection Type – Extb	●	●	●		●	●	●	●	
Gas Group IIC	●	●	●		●	●	●	●	●
Dust Group IIIC	●	●	●		●	●	●	●	
Zones – ZONE 1	●	●	●		●	●	●	●	●
Zones – ZONE 2	●	●	●		●	●	●	●	●
Zones – ZONE 21	●	●	●		●	●	●	●	●
Zones – ZONE 22	●	●	●		●	●	●	●	●
CLASS I – DIV 1							●	●	
CLASS I – DIV 2					●	●	●	●	
CLASS II – DIV 1					●	●	●	●	
CLASS II – DIV 2									

 **XP Flex** Page 160	 **Ex d Cable Glands** Page 162	 **Ex d Cable Glands** Page 164	 **Ex e Cable Glands** Page 166	 **Nylon Cable Glands** Page 168	 **Thread Convertors** Page 170	 **Standard Stopping Plugs** Page 174	 **Tamperproof Stopping Plugs** Page 174	 **Hex Head Stopping Plugs** Page 176	 **Dome Head Stopping Plugs** Page 176	 **Nylon Stopping Plugs** Page 176
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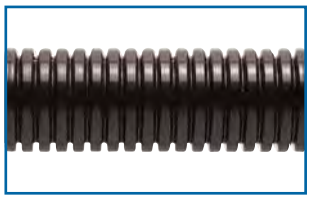
Non-metallic Nylon Conduit

Technical Specifications

EXB Anti-Static Conduit compatible with EXPQM / EXPQA Fittings



Anti-Static Nylon 12 (Black) Type	Conduit Size (mm) Metric	NW	Outside Diameter (mm)	Coil Lengths (m)
EXB03*	16	12	15.8	10/30/50
EXB04*	21	17	21.2	10/30/50
EXB05*	28	23	28.5	10/30/50
EXB06*	34	29	34.4	10/30/50
EXB07*	42	36	42.4	10/30/50
EXB08*	54	48	54.5	10/30/50
EXB09*	63	56	67.2	10/30/50
EXB010*	80	70	80	10/30/50

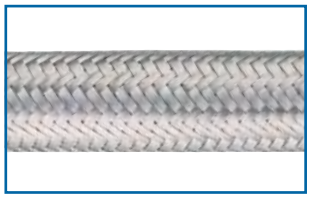
**Add coil length to complete part number, e.g. 10 metres = EXB0510*

EC TYPE Examination Certificate:
ATEX: Baseefa 08 ATEX 0003X
IECEx: IECEx BAS08.0001X
GOST R: РОСС GB.ГБ05.B03850
INMETRO: TÜV 11.0091

Ex e IIC Gb
Ex tb IIIC Db
Temperature: -20°C to 80°C
RTI 110°C to EN60079-0

Special Characteristics
EXB: Surface resistivity <$10^6\Omega$

EXBB Overbraided Conduit compatible with EXBQM / EXBQA Fittings



Anti-Static Nylon 12 (Stainless Steel) Type	Conduit Size (mm) Metric	NW	Outside Diameter (mm)	Coil Lengths (m)
EXBB03*	16	12	12	50
EXBB04*	21	17	17	50
EXBB05*	28	23	23	50
EXBB06*	34	29	27	50
EXBB07*	42	36	36	30
EXBB08*	54	48	48	30

**Add coil length to complete part number, e.g. 10 metres = EXBB0510*

EC TYPE Examination Certificate:
ATEX: Baseefa 08 ATEX 0003X
IECEx: IECEx BAS08.0001X
GOST R: РОСС GB.ГБ05.B03850
INMETRO: TÜV 11.0091

Ex e IIC Gb
Ex tb IIIC Db
Temperature: -20°C to 80°C
RTI 110°C to EN60079-0

Special Characteristics
EXBB: Screening level 60dB at 1MHz

Related Products

EXPQM Fitting 140

EXBQM Fitting 140

Technical Specifications

XESX Anti-Static Nylon Multi-Layer Conduit compatible with EXPQM / EXBQA Fittings

Anti-Static Nylon 12 (Black) Type	Conduit Size (mm) Metric	Conduit Size (mm) NW	Coil Lengths (m)	Outside Diameter (mm)
XESX02*	12	10	50	12.8
XESX03*	16	12	50	15.6
XESX04*	21	17	50	21
XESX05*	28	23	50	28.5
XESX06*	34	29	50	34.4
XESX07*	42	36	30	42.4
XESX08*	54	48	30	54.4

**Add coil length to complete part number, e.g. 10 metres = XESX0510*

EC TYPE Examination Certificate:
ATEX: Baseefa 08 ATEX 0003X
IECEx: IECEx BAS08.0001X

Ex e IIC Gb
Ex tb IIIC Db
Temperature: -40°C to 85°C

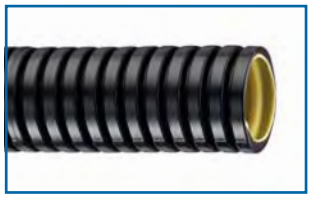
RTI 110°C to EN60079-0
Special Characteristics
XESX: Surface resistivity <$10^6\Omega$

Related Products

EXPQM Fitting 140

EXBQM Fitting 140

XESX Anti-Static Conduit compatible with all Nylon Fittings



Anti-Static Nylon 12 (Black) Type	Conduit Size (mm) Metric	Conduit Size (mm) NW	Coil Lengths (m)
XESXT-10BY.50	12	10	50
XESXT-12BY.50	16	12	50
XESXG-17BY.50	21	17	50
XESXG-23BY.50	28	23	50
XESXG-29BY.50	34	29	50
XESXG-36BY.30	42	36	30
XESXG-48BY.30	54	48	30

EC TYPE Examination Certificate:
ATEX SEV 05 ATEX0105

Ex eb IIC Gb
Ex tb IIIC Db

Temperature: -40°C to 85°C

Special Characteristics:
XESX: Surface resistivity <$10^6\Omega$

Related Products

NENV Fitting 142

NENZ Fitting 142

NEBV Fitting 144

NEWV Fitting 144

NEAV Fitting 144

EXBQM / EXPQA Range
Nylon conduit fittings

Approvals / Characteristics

Exe
Extb
G IIC
D IIIC
ZONE 1
ZONE 2
ZONE 21
ZONE 22
IP 66

Features

- **Manufactured in Nickel Plated Brass**
- **Approved for use in Ex e applications for Zones 1, 2, 21 & 22**

Certification & Standards

EC TYPE Examination Certificate:
ATEX: Baseefa 08 ATEX 0003X
IECEx: IECEx BAS08.0001X
GOST R: РОСС GB.ГБ05.B03850
INMETRO: TÜV 11.0091
Ex e IIC Gb
Ex tb IIIC Db
Temperature: -40°C to 85°C

EXPQM Straight Male Conduit Fitting for EXB / XESX Nylon Conduit

Technical Specifications

Nickel Plated Brass Type - Metric	Conduit Size (mm) Metric	NW	Thread Size Metric (mm)
EXPQM0203	12	10	16
EXPQM0303	16	12	16
EXPQM0304	16	12	20
EXPQM0404	20	17	20
EXPQM0505	28	23	25
EXPQM0606	34	29	32
EXPQM0707	42	36	40
EXPQM0808	54	48	50
EXPQM0909	63	56	63
EXPQM1010	80	70	75

Nickel Plated Brass Type - NPT	Conduit Size (mm) Metric	NW	Thread Size NPT (inch)
EXPQA0304	16	12	1/2
EXPQA0404	20	17	1/2
EXPQA0505	28	23	3/4
EXPQA0606	34	29	1
EXPQA0707	42	36	1 1/4
EXPQA0808	54	48	1 1/2
EXPQA0909	63	56	2
EXPQA1010	80	70	2 1/2

EXBQM Straight Male Conduit Fitting for EXBB Braided Conduit

Nickel Plated Brass Type - Metric	Conduit Size (mm) Metric	NW	Thread Size Metric (mm)
EXBQM0304	16	12	20
EXBQM0404	20	17	20
EXBQM0505	28	23	25
EXBQM0606	34	29	32
EXBQM0707	42	36	40
EXBQM0808	54	48	50

Nickel Plated Brass Type - NPT	Conduit Size (mm) Metric	NW	Thread Size NPT (inch)
EXBQA0304	16	12	1/2
EXBQA0404	20	17	1/2
EXBQA0505	28	23	3/4
EXBQA0606	34	29	1
EXBQA0707	42	36	1 1/4
EXBQA0808	54	48	1 1/2

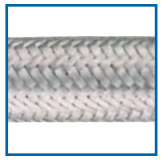
For Accessories see page 178-79

Related Products

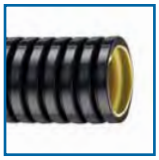
Locknuts 178

Sealing Washers 178

EXB Range 138



EXBB Range 138



XESX Multi-Layer Range 139

Nylon Conduit Fittings

Nylon conduit fittings for XESX conduit (Ex only)

Approvals / Characteristics

Ex

Exe | Extb

G IIC | D IIIC

ZONE 1 | ZONE 2 | ZONE 21 | ZONE 22

IP 66

Features

- **Manufactured in modified Nylon 12 with Nickel Plated Brass threads**
- **Approved for use in Ex e applications for Zones 1, 2, 21 & 22**

Certification & Standards

EC TYPE Examination Certificate:
ATEX: SEV 05 ATEX 0105
Ex eb IIC
Ex tb IIIC
Temperature: -20°C to 85°C

NENV Straight Male Conduit Fitting

Technical Specifications

Type - Metric	Conduit Size (mm) Metric	NW	Metric Thread Size (mm)
NENV-M120-10	12	10	12
NENV-M160-10	12	10	16
NENV-M162-10	16	12	16
NENV-M202-10	16	12	20
NENV-M207-10	20	17	20
NENV-M257-11	20	17	25
NENV-M253-11	25	23	25
NENV-M323-13	25	23	32
NENV-M329-13	32	29	32
NENV-M409-13	32	29	40
NENV-M406-13	40	36	40
NENV-M506-14	40	36	50
NENV-M508-14	50	48	50
NENV-M638-114	50	48	63

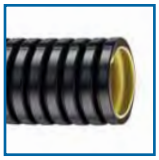
NENZ Straight Male Conduit Fitting with Strain Relief

Type - Metric	Conduit Size (mm) Metric	NW	Metric Thread Size (mm)
NENZ-M120S/P	12	10	12
NENZ-M160S/P	12	10	16
NENZ-M202S/P	12	10	20
NENZ-M207S/P	16	12	20
NENZ-M257S/P	20	17	20
NENZ-M323S/P	20	17	25
NENZ-M409S/P	25	23	32
NENZ-M506S/P	32	29	40
NENZ-M508S/P	40	36	50
NENZ-M638S/P	50	48	63

**Available with various clamping ranges*

Related Products

Locknuts 178



XESX Range 139

Nylon Conduit Fittings for XESX Conduit (Ex only)

Technical Specifications

NEBV 90° Curved Elbow

Type - Metric	Conduit Size (mm) Metric	NW	Metric Thread Size (mm)
NEBV-M207-10	20	17	20
NEBV-M257-11	20	17	25
NEBV-M253-11	25	23	25
NEBV-M323-13	25	23	32
NEBV-M329-13	32	29	32
NEBV-M409-13	32	29	40
NEBV-M406-13	40	36	40
NEBV-M506-14	40	36	50
NEBV-M508-14	50	48	50
NEBV-M638-14	50	48	63

NEWV 90° Elbow

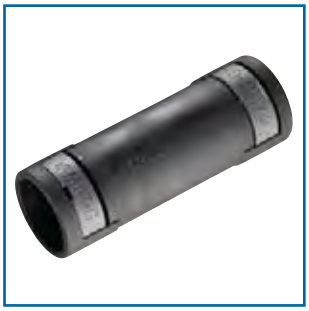
Type - Metric	Conduit Size (mm) Metric	NW	Metric Thread Size (mm)
NEWV-M120-10*	12	10	12
NEWV-M160-10*	12	10	16
NEWV-M162-10*	16	12	16
NEWV-M202-10*	16	12	20

NEAV 45° Elbow

Type - Metric	Conduit Size (mm) Metric	NW	Metric Thread Size (mm)
NEAV-M120-10	20	17	20
NEAV-M162-10	20	17	25
NEAV-M207-10	25	23	25
NEAV-M257-11	25	23	32
NEAV-M253-11	32	29	32
NEAV-M323-13	32	29	40
NEAV-M329-13	40	36	40
NEAV-M409-13	40	36	50
NEAV-M406-13	50	48	50
NEAV-M506-14	50	48	63
NEAV-M508-14	50	48	50
NEAV-M638-14	50	48	63

Technical Specifications

BESGR Splice Connector



Type - Metric	Conduit Size (mm) Metric	NW
BESGR-1212	16	12
BESGR-1212	20	17
BESGR-1212	25	23
BESGR-1212	32	29
BESGR-1212	40	36
BESGR-1212	50	48

BEYR Y Piece

Type - Metric	Conduit Size (mm) Metric	NW	2 x Conduit Size (mm) Metric	NW
BEYR-121010	16	12	12	10
BEYR-171212	20	17	16	12
BEYR-231717	25	23	20	17
BEYR-292323	32	29	25	23
BEYR-362929	40	36	32	29
BEYR-483636	50	48	40	36

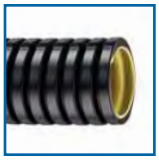
BETR Tee Piece

Type - Metric	Conduit Size (mm) Metric	NW
BETR-101010	12	10
BETR-121212	16	12
BETR-171717	20	17
BETR-232323	25	23
BETR-292929	32	32
BETR-363636	40	40
BETR-363636	50	50

For Accessories see page 178-79

Related Products

Locknuts 178



XESX Range 139

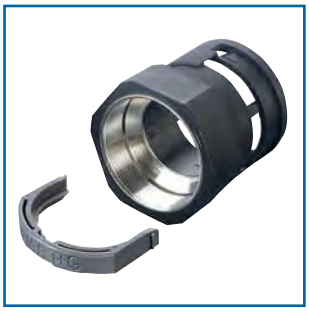
Nylon Conduit Fittings for XESX Conduit (Ex only)

Technical Specifications

BEAVR Reducer

Type - Metric	Conduit Size (mm) Metric	NW
BEAVR-12/10	16	12
BEAVR-17/12	20	17
BEAVR-23/17	25	23
BEAVR-29/23	32	29
BEAVR-36/29	40	36
BEAVR-48/36	50	48

NEIR Reducer Female Thread Adapter - Straight



Type - Metric	Conduit Size (mm) Metric	NW
NEIR-M120	12	10
NEIR-M160	16	10
NEIR-M162	16	12
NEIR-M207	20	17
NEIR-M253	25	23
NEIR-M329	32	29
NEIR-M406	40	36
NEIR-M508	50	48
NEIR-M638	63	48

BENR-REM Corrugated Conduit to Rigid Metal Pipe Connection

Type - Metric	Conduit Size (mm) Metric	NW	External Dimensions (mm)
BENR-REM162-24	16	12	54
BENR-REM207-28	20	17	65
BENR-REM253-32	25	23	71
BENR-REM329-44	32	29	71
BENR-REM406-50	40	36	90
BENR-REM508-65	50	48	90

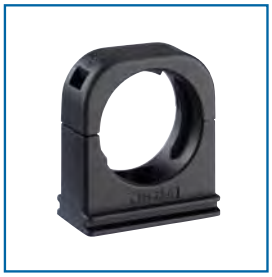
Technical Specifications

HEAK EMC Connector with Conical Shielding Braid Clamp compatible with NENV / NENZ / NEBV / NEWV / NEAV

Nickel Plated Brass	Conduit Size (mm)	
Type - Metric	Metric (Fits to thread)	NW
HEAK-M32/25-13	32 - 25	23
HEAK-M40/32-13	40 - 32	29
HEAK-M50/40-14	50 - 40	36
HEAK-M63/63-14	63 - 63	48

Accessories

BEH Conduit Clip

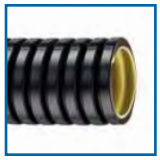


	Conduit Size (mm)	
Type - Metric	Metric	NW
BEH-10-0	12	10
BEH-12-0	16	12
BEH-17-0	20	17
BEH-23-0	25	23
BEH-29-0	32	29
BEH-36-0	40	36
BEH-48-0	50	48

For Accessories see page 178-79

Related Products

Locknuts 178

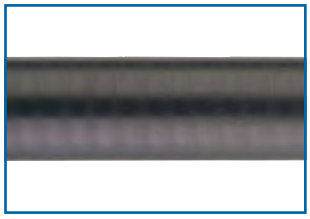


XESX Range 139

Liquid Tight Conduit - Galvanised Steel Core

Technical Specifications

General Oil Resistant - Galzanised Steel Core with a general purpose oil resistant coating



General Oil Resistant (Black) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (m)
EXLB03*	16	3/8	12.5	10/30
EXLB04*	20	1/2	16.0	10/30
EXLB05*	25	3/4	21.0	10/30
EXLB06*	32	1	26.4	10/20
EXLB07*	40	1 1/4	35.3	10/20
EXLB08*	50	1 1/2	40.4	10/20
EXLB09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXLB0510*

Certification Standard: IEC 61386
Static Temp: -25°C to +105°C
Flexing Temp: -5°C to +105°C

Special Characteristics
Flame retardant PVC covering

Flame Propogation
Flame dies in less than 30 seconds after ignition source is removed

Low Fire Hazard - Galzanised Steel Core with a LFH coating

Low Fire Hazard (Black) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (m)
EXLT03*	16	3/8	12.5	10/30
EXLT04*	20	1/2	16.0	10/30
EXLT05*	25	3/4	21.0	10/30
EXLT06*	32	1	26.4	10/20
EXLT07*	40	1 1/4	35.3	10/20
EXLT08*	50	1 1/2	40.4	10/20
EXLT09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXLT0510*

Certification Standard: IEC 61386
LUL Fully Compliant (E1042A6)
MOD to NES 518: Issue 3 DEF STAN 61-12 (Part 31) Issue 1

Static Temp: -25°C to +90°C
Flexing Temp: -5°C to +90°C
Special Characteristics
Limited Fire Hazard, zero halogen (BS6425 Pt 1)

Flame Propogation
Flame dies in less than 30 seconds after ignition source is removed

Low Fire Hazard with EMC Protection - Galvanised Steel Core with a galvanised steel EMC shield and LFH Covering

Low Fire Hazard with EMC (Black) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (m)
EXBBT03*	16	3/8	12.5	10/30
EXBBT04*	20	1/2	16.0	10/30
EXBBT05*	25	3/4	21.0	10/30
EXBBT06*	32	1	26.4	10/20
EXBBT07*	40	1 1/4	35.3	10/20
EXBBT08*	50	1 1/2	40.4	10/20
EXBBT09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXBBT0510*

Certification Standard: IEC 61386
MOD to NES 518: Issue 3 DEF STAN 61-12 (Part 31) Issue 1

Static Temp: -25°C to +90°C
Flexing Temp: -5°C to +90°C

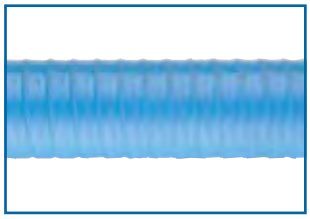
Special Characteristics
Limited Fire Hazard covering
EMC Screening level: 60db at 1MHz Braided

Technical Specifications

High Temperature - Galvanised Steel Core with a high temperature resistant coating

High Temperature (Black) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (inch)
EXLH03*	16	3/8	12.5	10/30
EXLH04*	20	1/2	16.0	10/30
EXLH05*	25	3/4	21.0	10/30
EXLH06*	32	1	26.4	10/20
EXLH07*	40	1 1/4	35.3	10/20
EXLH08*	50	1 1/2	40.4	10/20
EXLH09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXLH0510*



High Temperature (Blue) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (inch)
EXLLH03*	16	3/8	12.5	10/30
EXLLH04*	20	1/2	16.0	10/30
EXLLH05*	25	3/4	21.0	10/30
EXLLH06*	32	1	26.4	10/20
EXLLH07*	40	1 1/4	35.3	10/20
EXLLH08*	50	1 1/2	40.4	10/20
EXLLH09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXLLH0510*

Certification Standard: IEC 61386
Static Temp: -50°C to +130°C
Flexing Temp: -5°C to +90°C

Special Characteristics
Flame resistance: UL94 V2
Chemical and oil resistant

Flame Propogation
Flame dies in less than 30 seconds after ignition source is removed

High Temperature Highly Flexible - Galvanised Steel Core with a high temperature, highly flexible coating

High Temperature, Highly Flexible (Blue) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (inch)
EXLHC03*	16	3/8	12.5	10/30
EXLHC04*	20	1/2	16.0	10/30
EXLHC05*	25	3/4	21.0	10/30
EXLHC06*	32	1	26.4	10/20
EXLHC07*	40	1 1/4	35.3	10/20
EXLHC08*	50	1 1/2	40.4	10/20
EXLHC09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXLHC0510*

Certification Standard: IEC 61386
Static Temp: -65°C to +150°C
Flexing Temp: -45°C to +135°C

Special Characteristics
High Flexibility
High Temperature

Flame Propogation
Flame dies in less than 30 seconds after ignition source is removed

Related Products

Group I Gland 152

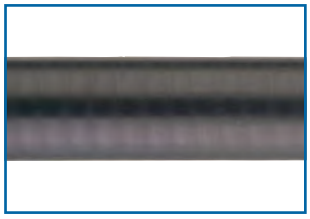
Group II Gland 158

90° Elbow Gland 144

Liquid Tight Conduit - Stainless Steel Core

Technical Specifications

General Oil Resistant - Stainless Steel 316 Core with a general purpose oil resistant coating



General Oil Resistant (Black) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (m)
EXSB03*	16	3/8	12.5	10/30
EXSB04*	20	1/2	16.0	10/30
EXSB05*	25	3/4	21.0	10/30
EXSB06*	32	1	26.4	10/20
EXSB07*	40	1 1/4	35.3	10/20
EXSB08*	50	1 1/2	40.4	10/20
EXSB09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXSB0510*

Certification Standard: IEC 61386
Static Temp: -25°C to +105°C
Flexing Temp: -5°C to +105°C

Special Characteristics
Flame retardant PVC covering

Flame Propogation
Flame dies in less than 30 seconds after ignition source is removed

Low Fire Hazard - Stainless Steel Core with a LFH coating

Low Fire Hazard (Black) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (m)
EXST03*	16	3/8	12.5	10/30
EXST04*	20	1/2	16.0	10/30
EXST05*	25	3/4	21.0	10/30
EXST06*	32	1	26.4	10/20
EXST07*	40	1 1/4	35.3	10/20
EXST08*	50	1 1/2	40.4	10/20
EXST09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXLT0510*

Certification Standard: IEC 61386
LUL Fully Compliant (E1042A6)
MOD to NES 518: Issue 3 DEF STAN 61-12 (Part 31) Issue 1

Static Temp: -25°C to +90°C
Flexing Temp: -5°C to +90°C
Special Characteristics
Limited Fire Hazard, zero halogen (BS6425 Pt 1)

Flame Propogation
Flame dies in less than 30 seconds after ignition source is removed

Low Fire Hazard with EMC Protection - Stainless Steel Core with a galvanised steel EMC shield and LFH Covering

Low Fire Hazard with EMC (Black) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (m)
EXSBBT03*	16	3/8	12.5	10/30
EXSBBT04*	20	1/2	16.0	10/30
EXSBBT05*	25	3/4	21.0	10/30
EXSBBT06*	32	1	26.4	10/20
EXSBBT07*	40	1 1/4	35.3	10/20
EXSBBT08*	50	1 1/2	40.4	10/20
EXSBBT09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXBBT0510*

Certification Standard: IEC 61386
MOD to NES 518: Issue 3 DEF STAN 61-12 (Part 31) Issue 1

Static Temp: -25°C to +90°C
Flexing Temp: -5°C to +90°C

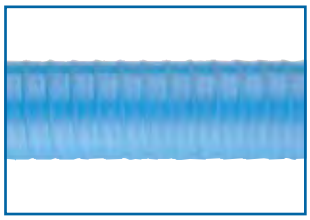
Special Characteristics
Limited Fire Hazard covering
EMC Screening level: 60db at 1MHz Braided

Technical Specifications

High Temperature - Stainless Steel Core with a high temperature resistant coating

High Temperature (Black) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (inch)
EXSH03*	16	3/8	12.5	10/30
EXSH04*	20	1/2	16.0	10/30
EXSH05*	25	3/4	21.0	10/30
EXSH06*	32	1	26.4	10/20
EXSH07*	40	1 1/4	35.3	10/20
EXSH08*	50	1 1/2	40.4	10/20
EXSH09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXLH0510*



High Temperature (Blue) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (inch)
EXSLH03*	16	3/8	12.5	10/30
EXSLH04*	20	1/2	16.0	10/30
EXSLH05*	25	3/4	21.0	10/30
EXSLH06*	32	1	26.4	10/20
EXSLH07*	40	1 1/4	35.3	10/20
EXSLH08*	50	1 1/2	40.4	10/20
EXSLH09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXLLH0510*

Certification Standard: IEC 61386
Static Temp: -50°C to +130°C
Flexing Temp: -5°C to +130°C

Special Characteristics
Flame resistance: UL94 V2
Chemical and oil resistant

Flame Propogation
Flame dies in less than 30 seconds after ignition source is removed

High Temperature Highly Flexible - Stainless Steel Core with a high temperature, highly flexible coating

High Temperature, Highly Flexible (Blue) Type	Conduit Size Metric (mm)	US Trade Size (inch)	Inside Diameter (mm)	Coil Lengths (inch)
EXSHC03*	16	3/8	12.5	10/30
EXSHC04*	20	1/2	16.0	10/30
EXSHC05*	25	3/4	21.0	10/30
EXSHC06*	32	1	26.4	10/20
EXSHC07*	40	1 1/4	35.3	10/20
EXSHC08*	50	1 1/2	40.4	10/20
EXSHC09*	63	2	51.6	10/20

**Add coil length to complete part number, e.g. 10 metres = EXLHC0510*

Certification Standard: IEC 61386
Static Temp: -65°C to +150°C
Flexing Temp: -45°C to +135°C

Special Characteristics
High Flexibility
High Temperature

Flame Propogation
Flame dies in less than 30 seconds after ignition source is removed

Related Products

Group I Gland 152

Group II Gland 158

90° Elbow Gland 144

G1 Glands

Liquid tight hazardous area flameproof glands

Approvals / Characteristics

Exde
Extb
G IIC
D IIIC
GROUP I
GROUP II
CLASS I
DIV 2
CLASS II
DIV 1
ZONE 1
ZONE 2
ZONE 21
ZONE 22
IP 66

Features

- **Constructed from either Brass or Stainless Steel with an epoxy resin barrier the Group I Flameproof Gland is a high specification product, ideal for all hazardous area applications**

Certification & Standards

EC TYPE Examination Certificate:
ATEX: Sira 09 ATEX 1231X
IECEx: IECEx SIR09.0103X
CSA: CSA File No: 2310045
GOST R: РОСС GB.ГБ05.B03850
INMETRO: TÜV 11.0339X
Ex de I Mb
Ex de IIC Gb
Ex tb IIIC Db
Class I Div 2 ABCD
Class II Div 1 EFG
Temperature: -60°C to +130°C

ATEX Flameproof G1 Gland

Technical Specifications

Nickel Plated Type - Metric	Conduit Size Metric (mm)	Thread Size Metric (mm)
HAMM0304G1	16	20
HAMM0404G1	20	20
HAMM0505G1	25	25
HAMM0606G1	32	32
HAMM0707G1	40	40
HAMM0808G1	50	50
HAMM0909G1	63	63

Nickel Plated Type - NPT	Conduit Size Metric (mm)	Thread Size NPT (inch)
HAAM0304G1	16	1/2
HAAM0404G1	20	1/2
HAAM0505G1	25	3/4
HAAM0606G1	32	1
HAAM0707G1	40	1 1/4
HAAM0808G1	50	1 1/2
HAAM0909G1	63	2

Brass Type - Metric	Conduit Size Metric (mm)	Thread Size Metric (mm)
HAM0304G1	16	20
HAM0404G1	20	20
HAM0505G1	25	25
HAM0606G1	32	32
HAM0707G1	40	40
HAM0808G1	50	50
HAM0909G1	63	63

Brass Type - NPT	Conduit Size Metric (mm)	Thread Size NPT (inch)
HAA0304G1	16	1/2
HAA0404G1	20	1/2
HAA0505G1	25	3/4
HAA0606G1	32	1
HAA0707G1	40	1 1/4
HAA0808G1	50	1 1/2
HAA0909G1	63	2

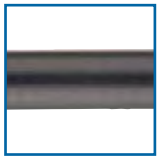
Stainless Steel Type - Metric	Conduit Size Metric (mm)	Thread Size Metric (mm)
HAMS0304G1	16	20
HAMS0404G1	20	20
HAMS0505G1	25	25
HAMS0606G1	32	32
HAMS0707G1	40	40
HAMS0808G1	50	50
HAMS0909G1	63	63

Stainless Steel Type - NPT	Conduit Size Metric (mm)	Thread Size NPT (inch)
HAAS0304G1	16	1/2
HAAS0404G1	20	1/2
HAAS0505G1	25	3/4
HAAS0606G1	32	1
HAAS0707G1	40	1 1/4
HAAS0808G1	50	1 1/2
HAAS0909G1	63	2

See page 148-153 for suitable conduits

For Accessories see page 178-79

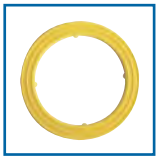
Related Products



General Oil Resistant 148

High Temperature Conduit 150

Low Fire Flexible Conduit 150

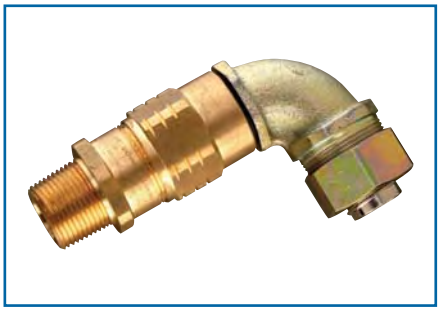


Sealing Washers 178

Liquid tight hazardous area flameproof G1 glands

Technical Specifications

ATEX Flameproof 90° Elbow Gland



Nickel Plated Type - Metric	Conduit Size Metric (mm)	Thread Size Metric (mm)
HAMM0304E	16	20
HAMM0404E	20	20
HAMM0505E	25	25
HAMM0606E	32	32
HAMM0707E	40	40
HAMM0808E	50	50
HAMM0909E	63	63

Nickel Plated Type - NPT	Conduit Size Metric (mm)	Thread Size NPT (inch)
HAAM0304E	16	1/2
HAAM0404E	20	1/2
HAAM0505E	25	3/4
HAAM0606E	32	1
HAAM0707E	40	1 1/4
HAAM0808E	50	1 1/2
HAAM0909E	63	2

Brass Type - Metric	Conduit Size Metric (mm)	Thread Size Metric (mm)
HAM0304E	16	20
HAM0404E	20	20
HAM0505E	25	25
HAM0606E	32	32
HAM0707E	40	40
HAM0808E	50	50
HAM0909E	63	63

Brass Type - NPT	Conduit Size Metric (mm)	Thread Size NPT (inch)
HAA0304E	16	1/2
HAA0404E	20	1/2
HAA0505E	25	3/4
HAA0606E	32	1
HAA0707E	40	1 1/4
HAA0808E	50	1 1/2
HAA0909E	63	2

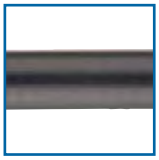
Stainless Steel gland available but elbow is Nickel Plated

Elbow supplied is for liquid tight conduit only

See page 148-151 for suitable conduits

For Accessories see page 178-79

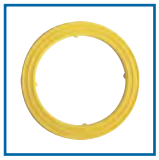
Related Products



General Oil Resistant 148

High Temperature Conduit 150

Low Fire Flexible Conduit 150



Sealing Washers 178

Universal Glands

Liquid tight hazardous area flameproof glands

Approvals / Characteristics

Exde
Extb
G IIC
D IIIC
GROUP I
GROUP II
CLASS I
DIV 1
DIV 2
CLASS II
DIV 1
ZONE 1
ZONE 2
ZONE 21
ZONE 22
IP 66

Features

- Constructed from either Brass or Stainless Steel with an epoxy resin barrier
- The Group I Universal Flameproof Gland is a high specification product, ideal for all hazardous area applications

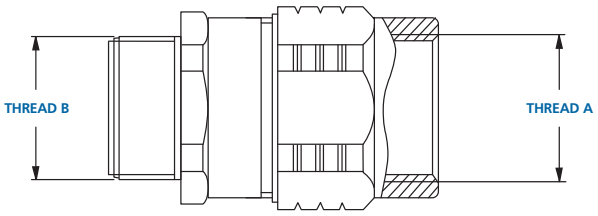
Certification & Standards

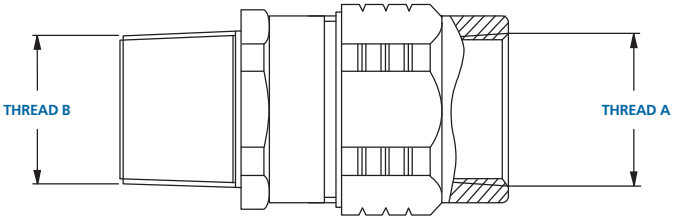
EC TYPE Examination Certificate:
ATEX: Sira 09 ATEX 1231X
IECEx: IECEx SIR09.0103X
CSA: CSA File No: 2310045
GOST R: РОСС GB.ГБ05.B03850
INMETRO: TÜV 11.0339X
Ex de I Mb
Ex de IIC Gb
Ex tb IIIC Db
Class I Div 1 BCD (Rigid conduit only)
Class I Div 2 ABCD
Class II Div 1 ABCD
Temperature: -60°C to +130°C

Liquid tight hazardous area flameproof Universal glands

Technical Specifications

Dimensions



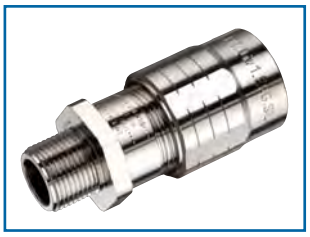


HAM 03 04 U

Thread A = M16 — Thread B = M20

HAA 03 04 U

Thread A = 3/8" NPT — Thread B = 1/2" NPT



Universal Gland

Nickel Plated Type - Metric	Male Thread Size Metric (mm)	Female Thread Size Metric (mm)
HAMM0304U	20	16
HAMM0404U	20	20
HAMM0505U	25	25
HAMM0606U	32	32
HAMM0707U	40	40
HAMM0808U	50	50
HAMM0909U	63	63

Nickel Plated Type - NPT	Male Thread Size NPT (inch)	Female Thread Size NPT (inch)
HAAM0304U	1/2	3/8
HAAM0404U	1/2	1/2
HAAM0505U	3/4	3/4
HAAM0606U	1	1
HAAM0707U	1 1/4	1 1/4
HAAM0808U	1 1/2	1 1/2
HAAM0909U	2	2

Brass Type - Metric	Male Thread Size Metric (mm)	Female Thread Size Metric (mm)
HAM0304U	20	16
HAM0404U	20	20
HAM0505U	25	25
HAM0606U	32	32
HAM0707U	40	40
HAM0808U	50	50
HAM0909U	63	63

Brass Type - NPT	Male Thread Size NPT (inch)	Female Thread Size NPT (inch)
HAA0304U	1/2	3/8
HAA0404U	1/2	1/2
HAA0505U	3/4	3/4
HAA0606U	1	1
HAA0707U	1 1/4	1 1/4
HAA0808U	1 1/2	1 1/2
HAA0909U	2	2

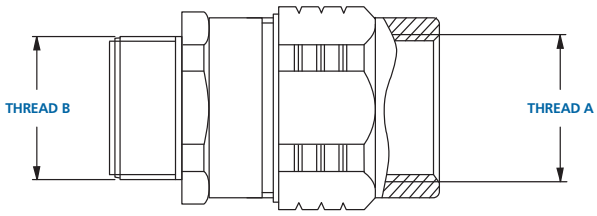
Stainless Steel Type - Metric	Male Thread Size Metric (mm)	Female Thread Size Metric (mm)
HAMS0304U	20	16
HAMS0404U	20	20
HAMS0505U	25	25
HAMS0606U	32	32
HAMS0707U	40	40
HAMS0808U	50	50
HAMS0909U	63	63

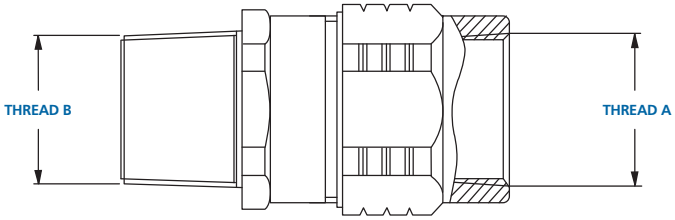
Stainless Steel Type - NPT	Male Thread Size NPT (inch)	Female Thread Size NPT (inch)
HAAS0304U	1/2	3/8
HAAS0404U	1/2	1/2
HAAS0505U	3/4	3/4
HAAS0606U	1	1
HAAS0707U	1 1/4	1 1/4
HAAS0808U	1 1/2	1 1/2
HAAS0909U	2	2

For use with Rigid conduit or other fittings

Dimensions

Technical Specifications



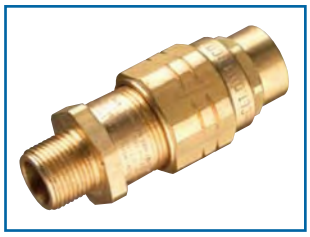


HAM 03 04 U/SW

Thread A = M16 ------ Thread B = M20

HAA 03 04 U/SW

Thread A = 3/8" NPT ------ Thread B = 1/2" NPT



Universal Swivel Gland

Nickel Plated Type - Metric	Male Thread Size Metric (mm)	Female Thread Size Metric (mm)
HAMM0304U/SW	20	16
HAMM0404U/SW	20	20
HAMM0505U/SW	25	25
HAMM0606U/SW	32	32
HAMM0707U/SW	40	40
HAMM0808U/SW	50	50
HAMM0909U/SW	63	63

Nickel Plated Type - NPT	Male Thread Size NPT (inch)	Female Thread Size NPT (inch)
HAAM0304U/SW	1/2	3/8
HAAM0404U/SW	1/2	1/2
HAAM0505U/SW	3/4	3/4
HAAM0606U/SW	1	1
HAAM0707U/SW	1 1/4	1 1/4
HAAM0808U/SW	1 1/2	1 1/2
HAAM0909U/SW	2	2

Brass Type - Metric	Male Thread Size Metric (mm)	Female Thread Size Metric (mm)
HAM0304U/SW	20	16
HAM0404U/SW	20	20
HAM0505U/SW	25	25
HAM0606U/SW	32	32
HAM0707U/SW	40	40
HAM0808U/SW	50	50
HAM0909U/SW	63	63

Brass Type - NPT	Male Thread Size NPT (inch)	Female Thread Size NPT (inch)
HAA0304U/SW	1/2	3/8
HAA0404U/SW	1/2	1/2
HAA0505U/SW	3/4	3/4
HAA0606U/SW	1	1
HAA0707U/SW	1 1/4	1 1/4
HAA0808U/SW	1 1/2	1 1/2
HAA0909U/SW	2	2

For use with Rigid conduit or other fittings

For Accessories see page 178-79

Related Products

Sealing Washers 178

Group II Gland

Liquid tight hazardous area flameproof gland

Approvals / Characteristics

Features

- **Constructed from either Brass or Stainless Steel with an epoxy resin barrier the Group II Flameproof Gland is a high specification product, ideal for all hazardous area applications**

Certification & Standards

EC TYPE Examination Certificate:
Baseefa 06 ATEX 0256X
IECEx BAS06.0059X
Ex d IIC
Ex e II
Ex tD A21
Temperature: -60°C to +80°C

ATEX Flameproof Group II Gland

Technical Specifications

Nickel Plated Type - Metric	Conduit Size Metric (mm)	Thread Size Metric (mm)
HAMM0304	16	20
HAMM0404	20	20
HAMM0505	25	25
HAMM0606	32	32
HAMM0707	40	40
HAMM0808	50	50
HAMM0909	63	63

**See page 140-143 for suitable conduits*

Nickel Plated Type - NPT	Conduit Size Metric (mm)	Thread Size NPT (inch)
HAAM0304	16	1/2
HAAM0404	20	1/2
HAAM0505	25	3/4
HAAM0606	32	1
HAAM0707	40	1 1/4
HAAM0808	50	1 1/2
HAAM0909	63	2

**See page 140-143 for suitable conduits*

Brass Type - Metric	Conduit Size Metric (mm)	Thread Size Metric (mm)
HAM0304	16	20
HAM0404	20	20
HAM0505	25	25
HAM0606	32	32
HAM0707	40	40
HAM0808	50	50
HAM0909	63	63

**See page 140-143 for suitable conduits*

Brass Type - NPT	Conduit Size Metric (mm)	Thread Size NPT (inch)
HAA0304	16	1/2
HAA0404	20	1/2
HAA0505	25	3/4
HAA0606	32	1
HAA0707	40	1 1/4
HAA0808	50	1 1/2
HAA0909	63	2

**See page 140-143 for suitable conduits*

Stainless Steel Type - Metric	Conduit Size Metric (mm)	Thread Size Metric (mm)
HAMS0304	16	20
HAMS0404	20	20
HAMS0505	25	25
HAMS0606	32	32
HAMS0707	40	40
HAMS0808	50	50
HAMS0909	63	63

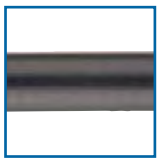
**See page 140-143 for suitable conduits*

Stainless Steel Type - NPT	Conduit Size Metric (mm)	Thread Size NPT (inch)
HAAS0304	16	1/2
HAAS0404	20	1/2
HAAS0505	25	3/4
HAAS0606	32	1
HAAS0707	40	1 1/4
HAAS0808	50	1 1/2
HAAS0909	63	2

**See page 140-143 for suitable conduits*

For Accessories see page 178-79

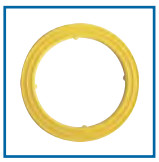
Related Products



General Oil Resistant 148

High Temperature Conduit 150

Low Fire Flexible Conduit 148



Sealing Washers 178

XP Flex™ Range

Explosion-proof flexible couplings

Approvals / Characteristics

c US

CLASS I DIV 1 DIV 2

CLASS II DIV 1

CLASS III

Features

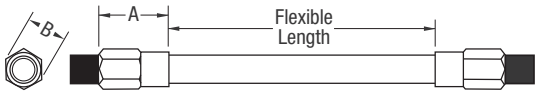
- UL Listed for use in hazardous and wet locations
- Corrosion-resistant - ideal for washdown areas
- Flexible bronze construction with arc-resistant inner sleeve and brass fittings
- Terminated with two threaded female end fittings and male close nipples
- No bonding jumper required

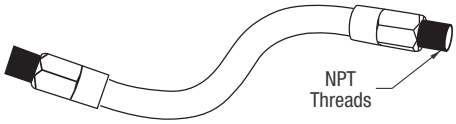
Certification & Standards

UL Listed and CSA Certified for Hazardous Locations:
0.5" and 0.75" Hub Sizes: Class I Div 1 & 2 ABCD;
Class II Div 1 EFG, Class III
1" Hub Size: Class I Div 1 & 2 CD;
Class II Div 1 EFG, Class III
UL Listed 886

Dimensions

Technical Specifications

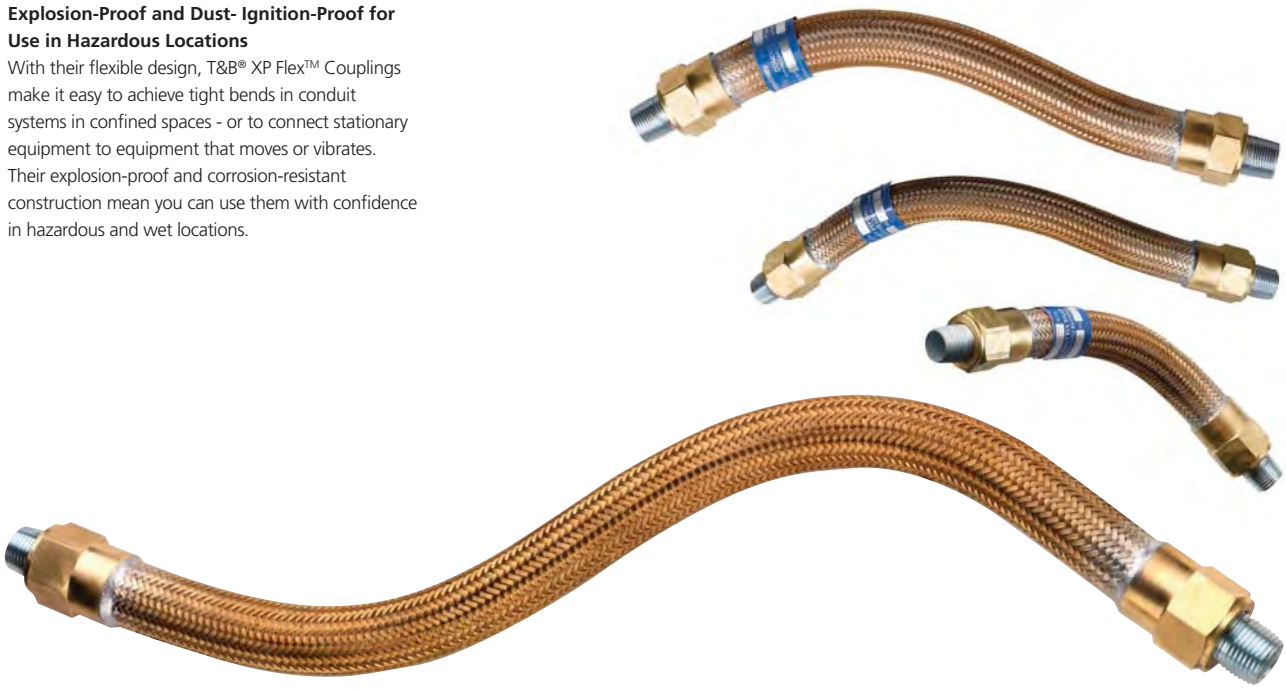




			Dimensions (mm)	
Type	**Thread Type (inch)**	**Flexible Length (mm)**	**A**	**B**
XPLFL16	1/2" NPT	150	39.1	36.6
XPLFL18	1/2" NPT	200	39.1	36.6
XPLFL110	1/2" NPT	250	39.1	36.6
XPLFL112	1/2" NPT	300	39.1	36.6
XPLFL115	1/2" NPT	380	39.1	36.6
XPLFL118	1/2" NPT	460	39.1	36.6
XPLFL124	1/2" NPT	610	39.1	36.6
XPLFL212	3/4" NPT	300	40.6	47.5
XPLFL215	3/4" NPT	380	40.6	47.5
XPLFL218	3/4" NPT	460	40.6	47.5
XPLFL224	3/4" NPT	610	40.6	47.5
XPLFL236	3/4" NPT	915	40.6	47.5
XPLFL318	1" NPT	460	50.08	58.7

Explosion-Proof and Dust- Ignition-Proof for Use in Hazardous Locations

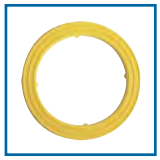
With their flexible design, T&B® XP Flex™ Couplings make it easy to achieve tight bends in conduit systems in confined spaces - or to connect stationary equipment to equipment that moves or vibrates. Their explosion-proof and corrosion-resistant construction mean you can use them with confidence in hazardous and wet locations.



Related Products

Enlargers, Reducers & Thread Convertors 170

Locknuts 178



Sealing Washers 178

Ex d Double Compression Cable Gland

4 Function double compression cable gland

Approvals / Characteristics

Features

- Flameproof Ex d and increased safety Ex e
- Available in Brass, Nickel Plated Brass and Stainless Steel 316
- Deluge proof
- Wide range of cable sizes

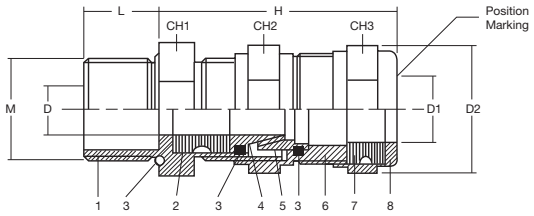
Certification & Standards

Approved to: EN 60079-0, 60079-1, 60079-7, 60079-31
EC TYPE Examination Certificate:
CESI 13 ATEX 041X, IECEx CES 13.0014X
Ex d IIC Gb
Ex e IIC Gb
Ex tb IIIC Db
Temperature:
-30°C to +120°C NBR sealing ring
-40°C to +100°C Neoprene sealing ring
-60°C to +180°C Silicon sealing ring

Dimensions

Technical Specifications

1. Lower Body
2. Lower Sealing Ring
3. O-Ring
4. Grounding Cone
5. Swivel Braid Retainer
6. Midlle Body
7. Upper Sealing Ring
8. Pressure Cap



Brass Metric		Sealings Range			Cable Gland Dimensions					Torque (Nm)	
Type	Metric Size	D (min-max)	D1 (min-max)	H Min	L Min	CH1	CH2	CH3	D2 Min	CH2	CH3
EX03MSC1	M16	3 - 8.5	6 - 12	47	16	22	26	26	29	27.0	25.0
EX03MMC1	M16	6 - 12	8.5 - 16	48	16	25	29	29	31.5	49.0	28.0
EX04MSC1	M20	3 - 8.5	6 - 12	47	16	24	26	26	29	27.0	25.0
EX04MMC1	M20	6 - 12	8.5 - 16	47	16	25	29	29	31.5	49.0	28.0
EX04MLC1	M20	12 - 14.5	16 - 20	50	16	28	30	32	35	33.0	33.0
EX05MSC1	M25	6 - 12	8.5 - 16	48	18	29	29	29	31.5	49.0	28.0
EX05MMC1	M25	12 - 16	16 - 21	53	18	32	34	34	37	30.0	27.0
EX05MLC1	M25	12 - 20	16 - 26	60	18	36	40	40	44	61.0	32.0
EX06MSC1	M32	12 - 20	16 - 26	62	18	40	40	40	44	61.0	32.0
EX06MMC1	M32	15 - 26	20 - 33	78	18	48	52	52	57	86.0	40.0
EX07MSC1	M40	15 - 26	20 - 33	78	18	48	52	52	57	86.0	40.0
EX07MMC1	M40	20 - 32	29 - 41	89	18	55	60	60	66	110.0	75.0
EX08MSC1	M50	22 - 35	33 - 48	97	18	60	70	75	82	110.0	75.0
EX08MMC1	M50	27 - 41	36 - 52	100	18	70	70	74	83	125.0	75.0
EX09MSC1	M63	35 - 45	43 - 57	106	20	75	80	80	89.5	160.0	140.0
EX09MMC1	M63	40 - 52	47 - 60	107	20	85	85	85	94	250.0	100.0
EX10MSC1	M75	40 - 52	47 - 60	107	20	85	85	85	94	250.0	100.0
EX10MMC1	M75	45 - 60	54 - 70	125	20	90	95	100	110.5	250.0	150.0
EX11MSC1	M90	45 - 60	54 - 70	125	20	95	95	100	110.5	250.0	150.0
EX11MMC1	M90	60 - 72	63 - 80	154	20	110	115	115	127	320.0	210.0

Brass NPT		Sealings Range			Cable Gland Dimensions					Torque (Nm)	
Type	NPT (inch)	D (min-max)	D1 (min-max)	H Min	L Min	CH1	CH2	CH3	D2 Min	CH2	CH3
EX03ASC1	3/8"	3 - 8,5	6 - 12	47	16	22	26	26	29	27.0	25.0
EX03AMC1	3/8"	6 - 12	8.5 - 16	48	16	25	29	29	31.5	49.0	28.0
EX04ASC1	1/2"	3 - 8.5	6 - 12	47	21	24	26	26	29	27.0	25.0
EX04AMC1	1/2"	6 - 12	8.5 - 16	47	21	25	29	29	31.5	49.0	28.0
EX04ALC1	1/2"	12 - 14.5	16 - 20	50	21	28	30	32	35	33.0	33.0
EX05ASC1	3/4"	6 - 12	8.5 - 16	48	21	29	29	29	31.5	49.0	28.0
EX05AMC1	3/4"	12 - 16	16 - 21	53	21	32	34	34	37	30.0	27.0
EX05ALC1	3/4"	12 - 20	16 - 26	60	21	36	40	40	44	61.0	32.0
EX06ASC1	1"	12 - 20	16 - 26	62	26	40	40	40	44	61.0	32.0
EX06AMC1	1"	15 - 26	20 - 33	78	26	48	52	52	57	86.0	40.0
EX07ASC1	1 1/4"	15 - 26	20 - 33	78	28	48	52	52	57	86.0	40.0
EX07AMC1	1 1/4"	20 - 32	29 - 41	89	28	55	60	60	66	110.0	75.0
EX08ASC1	1 1/2"	22 - 35	33 - 48	97	28	60	70	75	82	110.0	75.0
EX08AMC1	1 1/2"	27 - 41	36 - 52	100	28	70	70	74	83	125.0	75.0
EX09ASC1	2"	35 - 45	43 - 57	106	28	75	80	80	89.5	160.0	140.0
EX09AMC1	2"	40 - 52	47 - 60	107	28	85	85	85	94	250.0	100.0
EX10ASC1	2 1/2"	40 - 52	47 - 60	107	41	85	85	85	94	250.0	100.0
EX10AMC1	2 1/2"	45 - 60	54 - 70	125	41	90	95	100	110.5	250.0	150.0
EX11ASC1	3"	45 - 60	54 - 70	125	43	95	95	100	110.5	250.0	150.0
EX11AMC1	3"	60 - 72	63 - 80	154	43	110	115	115	127	320.0	210.0

**For Nickel Plated Brass version, add N to the reference, e.g. EXN03MSC1 for Metric / EXN03ASC1 for NPT*
***For Stainless Steel 316 version, add S to the reference, e.g. EXS03MSC1 for Metric / EXS03ASC1 for NPT*

Connector Description: EX - Brass / EXN - Nickel Plated Brass / EXS - Stainless Steel 316

Ex d Single Compression Cable Gland

Single compression cable gland

Approvals / Characteristics

Features

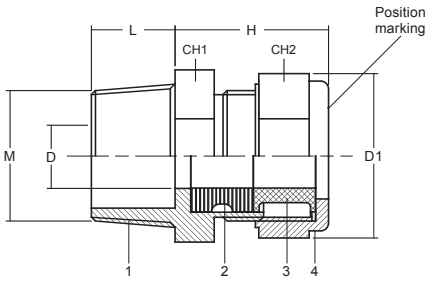
- Flameproof Ex d and increased safety Ex e
- Available in Brass, Nickel Plated Brass and Stainless Steel 316
- Deluge proof
- Wide range of cable sizes

Certification & Standards

Approved to: EN 60079-0, 60079-1, 60079-7, 60079-31
EC TYPE Examination Certificate:
CESI 13 ATEX 041X, IECEx CES 13.0014X
Ex d IIC Gb
Ex e IIC Gb
Ex tb IIIC Db
Temperature:
-30°C to +120°C NBR sealing ring
-40°C to +100°C Neoprene sealing ring
-60°C to +180°C Silicon sealing ring

Dimensions

Technical Specifications



Brass Metric		Sealings Range		Cable Gland Dimensions				
Type	Metric Size	D (min-max)	H Min	L Min	CH1	CH2	D1 Min	Torque (Nm)
EX03MMC3	M16	28.5	25.0	29.0	31.5	6 - 12	35	16
EX04MSC3	M20	27.5	25	29	31.5	6 - 12	35	16
EX04MMC3	M20	29	28	30	33.5	6 - 12	33	16
EX05MSC3	M25	28.5	29	29	31.5	12 - 14.5	35	18
EX05MMC3	M25	28.5	32	35	37	6 - 12	30	18
EX05MLC3	M25	32.5	36	40	44.5	6 - 12	61	18
EX06MSC3	M32	33.5	40	40	44.5	12 - 16	61	18
EX06MMC3	M32	41	48	52	57	12 - 20	86	18
EX07MSC3	M40	41	48	52	57	15 - 26	86	18
EX07MMC3	M40	50	55	60	66	15 - 26	110	18
EX08MSC3	M50	50.5	60	70	77	20 - 32	110	18
EX08MMC3	M50	54	70	70	77	22 - 35	125	18
EX09MSC3	M63	61.5	75	80	89.5	27 - 41	165	20
EX09MMC3	M63	61.5	85	85	94	35 - 45	250	20
EX10MSC3	M75	61.5	85	85	94	40 - 52	250	20
EX10MMC3	M75	72	90	95	105	40 - 52	250	20
EX11MSC3	M90	72	95	85	105	45 - 60	250	20
EX11MMC3	M90	84	110	115	127	60 - 72	300	20

Brass NPT		Sealings Range		Cable Gland Dimensions				
Type	NPT (inch)	D (min-max)	H Min	L Min	CH1	CH2	D1 Min	Torque (Nm)
EX03AMC3	3/8"	28.5	25	29	31.5	6 - 12	35	16
EX04ASC3	1/2"	27.5	25	29	31.5	6 - 12	35	21
EX04AMC3	1/2"	29	28	30	33.5	12 - 14.5	33	21
EX05ASC3	3/4"	28.5	29	29	31.5	6 - 12	35	21
EX05ALC3	3/4"	32.5	36	40	44.5	12 - 20	61	21
EX06ASC3	3/4"	33.5	40	40	44.5	12 - 20	61	26
EX06AMC3	3/4"	41.0	48	52	57	15 - 26	86	26
EX07ASC3	1"	41.0	48	52	57	15 - 26	86	28
EX07AMC3	1"	50	55	60	66	20 - 32	110	28
EX08ASC3	1 1/4"	50.5	60	70	77	22 - 35	110	28
EX08AMC3	2 1/4"	54	70	70	77	27 - 41	125	28
EX09ASC3	1 1/2"	61.5	75	80	89.5	35 - 45	165	28
EX09AMC3	1 1/2"	61.5	85	85	94	40 - 52	250	28
EX10ASC3	2"	61.5	85	85	94	40 - 52	250	41
EX10AMC3	2"	72	90	95	105	45 - 60	250	41
EX11ASC3	2 1/2"	72	95	95	105	45 - 60	250	43
EX11AMC3	3 1/2"	84	110	115	127	60 - 72	300	43

**For Nickel Plated Brass version, add N to the reference, e.g. EXN03MMC3 for Metric / EXN03AMC3 for NPT*
***For Stainless Steel 316 version, add S to the reference, e.g. EXS03MMC3 for Metric / EXS03AMC3 for NPT*

Connector Description: EX - Brass / EXN - Nickel Plated Brass / EXS - Stainless Steel 316

Ex e Cable Gland

Single compression cable gland

Approvals / Characteristics

Features

- Flameproof Ex d and increased safety Ex e
- Available in Brass, Nickel Plated Brass and Stainless Steel 316
- Large cable range within one product with removeable seals

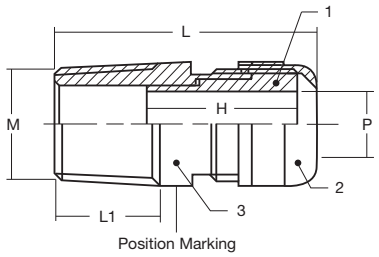
Certification & Standards

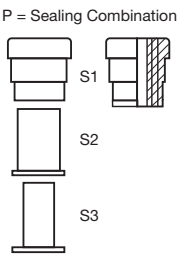
Approved to: EN 60079-0:2012, EN 60079-1:2007, EN 60079-7:2007, EN 60079-11:2010, EN 60079-31:2009
EC TYPE Examination Certificate:
IMQ 13 ATEX 015X
II 2GD / Exe IIC Gb -30°C to +120°C
Ex tb IIIC Db
IP test: IP66
Temperature:
-30°C to +120°C NBR sealing ring
-40°C to +100°C Neoprene sealing ring
-60°C to +180°C Silicon sealing ring

Dimensions

Technical Specifications

1. Sealing Ring
2. Cap
3. Body





Brass Metric		Cable Gland Dimensions				Sealing Ring Dimensions				
Type	Metric Size	L	L Min	CH	H Min	Min-Max	S1+S2+S3	S1+S2	S1	Torque (Nm)
EX03MMC2	M16	40	16	22	20	3 - 12	3 - 6	6 - 9	9 - 12	19
EX04MSC2	M20	40	16	22	20	3 -12	3 - 6	6 - 9	9 - 12	19
EX04MMC2	M20	45	16	28	20	10 - 16	–	10 - 14	14 - 16	28
EX05MSC2	M25	40	16	28	20	10 - 16	–	10 - 14	14 - 16	28
EX05MMC2	M25	50	16	35	25	14 - 20	–	14 - 17	17 - 20	31
EX06MSC2	M32	43	16	35	25	14 - 24	14 - 17	17 - 20	20 - 24	31
EX06MMC2	M32	53	16	45	39	22 - 28	–	22 - 26	26 - 28	26
EX07MSC2	M40	45	18	45	39	22 - 32	–	22 - 26	26 - 32	26
EX07MMC2	M40	55	18	50	32	26 - 34	–	26 - 32	32 - 34	58
EX08MSC2	M50	46	18	55 / 50	32	26 -35	–	26 - 30	30 - 35	58
EX08MMC2	M50	63	18	55 / 58	38	35 - 42	–	35 - 38	38 - 42	68
EX09MSC2	M63	53	18	68 / 58	38	35 - 45	–	35 - 38	38 - 45	60
EX09MMC2	M63	62	18	75 / 80	25	46 - 56	–	46 - 51	51 - 56	75
EX10MSC2	M75	64	20	80	25	46 - 62	46 - 51	51 - 57	57 - 62	75
EX10MMC2	M75	75	20	95	36	60 - 69	–	60 - 63	63 - 69	110
EX11MSC2	M90	75	20	95	36	60 - 75	60 - 63	63 - 69	69 - 75	110
EX11MMC2	M90	77	20	105	38	75 - 82	–	75 - 79	79 - 82	130
EX12MSC2	M100	77	20	115 / 105	38	75 - 85	75 - 79	79 - 82	82 - 85	130
EX12MMC2	M100	77	20	115	38	85 - 95	85 - 89	89 - 92	92 - 95	140

Brass NPT		Cable Gland Dimensions				Sealing Ring Dimensions				
Type	NPT (inch)	L	L Min	CH	H Min	Min-Max	S1+S2+S3	S1+S2	S1	Torque (Nm)
EX03AMC2	3/8"	40	16	22	20	3 - 12	3 - 6	6 - 9	9 - 12	19
EX04ASC2	1/2"	40	16	22	20	3 -12	3 - 6	6 - 9	9 - 12	19
EX04AMC2	1/2"	45	16	28	20	10 - 16	–	10 - 14	14 - 16	28
EX05ASC2	3/4"	40	16	28	20	10 - 16	–	10 - 14	14 - 16	28
EX05AMC2	3/4"	50	16	35	25	14 - 20	–	14 - 17	17 - 20	31
EX06ASC2	1"	47	20	35	25	14 - 24	14 - 17	17 - 20	20 - 24	31
EX06AMC2	1"	57	20	45	39	22 - 28	–	22 - 26	26 - 28	26
EX07ASC2	1 1/4"	47	20	45	39	22 - 32	–	22 - 26	26 - 32	26
EX07AMC2	1 1/4"	57	20	50	32	26 - 34	–	26 - 32	32 - 34	58
EX08ASC2	1 1/2"	48	20	55 / 50	32	26 -35	–	26 - 30	30 - 35	58
EX08AMC2	1 1/2"	65	20	55 / 58	38	35 - 42	–	35 - 38	38 - 42	60
EX09ASC2	2"	55	20	68 / 58	38	35 - 45	–	35 - 38	38 - 45	60
EX09AMC2	2"	64	20	75 / 80	25	46 - 56	–	46 - 51	51 - 56	75
EX10ASC2	2 1/2"	70	26	80	25	46 - 62	46 - 51	51 - 57	57 - 62	75
EX10AMC2	2 1/2"	81	26	95	36	60 - 69	–	60 - 63	63 - 69	110
EX11ASC2	3"	81	26	95	36	60 - 75	60 - 63	63 - 69	69 - 75	110
EX11AMC2	3"	83	26	105	38	75 - 82	–	75 - 79	79 - 82	130
EX12ASC2	4"	83	26	115 / 105	38	75 - 85	75 - 79	79 - 82	82 - 85	130
EX12AMC2	4"	83	26	115	38	85 - 95	85 - 89	89 - 92	92 - 95	140

**For Nickel Plated Brass version, add N to the reference, e.g. EXN03MMC2 for Metric / EXN03AMC2 for NPT*
***For Stainless Steel 316 version, add S to the reference, e.g. EXS03MMC2 for Metric / EXS03AMC2 for NPT*

Connector Description: EX - Brass / EXN - Nickel Plated Brass / EXS - Stainless Steel 316

Nylon Cable Gland

Ex e nylon cable gland

Approvals / Characteristics

Features

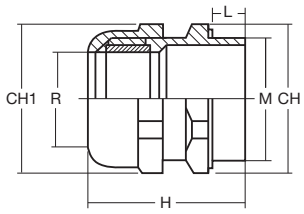
- Suitable for potentially explosive gas atmospheres
- Increased safety “e” and intrinsic safety “i”

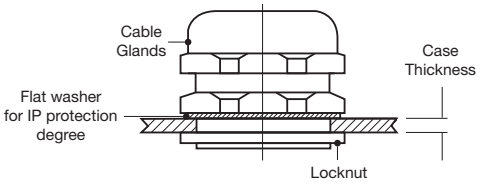
Certification & Standards

Approved to: EN 60079-0, 60079-7, 60079-11, 60079-31
EC TYPE Examination Certificate:
IMQ 13 ATEX 016X, IECEx IMQ 13.0005X
Ex e IIC Gb
Ex tb IIIC Db
IP test: IP66-IP68
Temperature: -20°C to +80°C

Dimensions

Technical Specifications





			Dimensions				
Type	**Metric Size**	**Min - Max**	**L**	**H min**	**CH**	**CH1**	**Torque (Nm)**
EXCGM20S	20	6,0 - 12,0	10	40	24	24	5
EXCGM20SL	20	6,0 - 12,0	15	45	24	24	5
EXCGM20M	20	10,0 - 14,0	10	42	27	27	5.5
EXCGM20ML	20	10,0 - 14,0	15	50	27	27	5.5
EXCGM25S	25	13,0 - 18,0	10	47	33	33	7
EXCGM25SL	25	13,0 - 18,0	15	50	33	33	7
EXCGM25M	25	11,0 - 17,0	8	42.5	29	29	5
EXCGM32S	32	15,0 - 21,0	10	50	36	36	6
EXCGM32M	32	18,0 - 25,0	15	68	42	42	9
EXCGM40S	40	19,0 - 28,0	10	55	46	46	5
EXCGM40M	40	22,0 - 32,0	18	68	53	53	17
EXCGM50S	50	30,0 - 38,0	18	73	60	60	22
EXCGM63S	63	34,0 - 44,0	18	74	65	65	23

			Dimensions				
Type	**NPT Size (inch)**	**Min - Max**	**L**	**H min**	**CH**	**CH1**	**Torque (Nm)**
EXCG050S	1/2"	6 - 12	15	45	24	24	5
EXCG050M	1/2"	10 - 14	15	47	27	27	5.5
EXCG075S	3/4"	13 - 18	15	50	33	33	7
EXCG100S	1"	18 - 25	18	58	42	42	9

For Accessories see page 178-79

Related Products

EVS Range 42

XB100 Range 104

XBi Range 116

Thread Convertors

Enlargers, reducers & convertors

Approvals / Characteristics

Exe Exd Extb

G IIC D IIIC

CLASS I DIV 1 CLASS II DIV 1

GROUP I GROUP II

ZONE 1 ZONE 2 ZONE 21 ZONE 22

IP 66

Features

- **Adaptors and Reducers provide a method of matching threadforms on hazardous approved equipment whilst ensuring the integrity and approval of the installation is maintained**

Certification & Standards

Certification Standard:
ATEX: Baseefa07 ATEX 0247X,
IECEx: IECEx BAS07.0090X
GOST R: РОСС GB.ГБ05.B03850
INMETRO: TÜV 11.0339X
Ex d IIC Gb
Ex e IIC Gb
Ex tb IIIC Db
Class I Div1 ABCD, Class II Div1 EFG
(does not include M16 & 3/8"NPT or unplated brass products)
Approved to UL 1203
Approved to CSA C22.2 No.60079-04
Approved to C22.2 No.60079-1

Metric - Technical Specification

Male External Thread	Metric Female Internal Thread							
	M16	M20	M25	M32	M40	M50	M63	M75
M16		EX/M16-M20/E	EX/M16-M25/E					
M20	EX/M20-M16/R		EX/M20-M25/E	EX/M20-M32/E				
M25	EX/M25-M16/R	EX/M25-M20/R		EX/M25-M32/E	EX/M25-M40/E			
M32	EX/M32-M16/R	EX/M32-M20/R	EX/M32-M25/R		EX/M32-M40/E	EX/M32-M50/E		
M40	EX/M40-M16/R	EX/M40-M20/R	EX/M40-M25/R	EX/M40-M32/R		EX/M40-M50/E	EX/M40-M63/E	
M50	EX/M50-M16/R	EX/M50-M20/R	EX/M50-M25/R	EX/M50-M32/R	EX/M50-M40/R		EX/M50-M63/E	EX/M50-M75/E
M63	EX/M63-M16/R	EX/M63-M20/R	EX/M63-M25/R	EX/M63-M32/R	EX/M63-M40/R	EX/M63-M50/R		EX/M63-M75/E
M75	EX/M75-M16/R	EX/M75-M20/R	EX/M75-M25/R	EX/M75-M32/R	EX/M75-M40/R	EX/M75-M50/R	EX/M75-M63/R	
PG9	EX/PG9-M16/TC	EX/PG9-M20/TC						
PG11	EX/PG11-M16/TC	EX/PG11-M20/TC						
PG13	EX/PG13-M16/TC	EX/PG13-M20/TC						
PG16	EX/PG16-M16/TC	EX/PG16-M20/TC	EX/PG16-M25/TC					
PG21	EX/PG21-M16/TC	EX/PG21-M20/TC	EX/PG21-M25/TC	EX/PG21-M32/TC				
PG29	EX/PG29-M16/TC	EX/PG29-M20/TC	EX/PG29-M25/TC	EX/PG29-M32/TC	EX/PG29-M40/TC			
PG36	EX/PG36-M16/TC	EX/PG36-M20/TC	EX/PG36-M25/TC	EX/PG36-M32/TC	EX/PG36-M40/TC	EX/PG36-M50/TC		
PG42	EX/PG42-M16/TC	EX/PG42-M20/TC	EX/PG42-M25/TC	EX/PG42-M32/TC	EX/PG42-M40/TC	EX/PG42-M50/TC	EX/PG42-M63/TC	
PG48	EX/PG48-M16/TC	EX/PG48-M20/TC	EX/PG48-M25/TC	EX/PG48-M32/TC	EX/PG48-M40/TC	EX/PG48-M50/TC	EX/PG48-M63/TC	
NPT 3/8	EX/038-M16/TC							
NPT 1/2	EX/050-M16/TC	EX/050-M20/TC	EX/050-M25/TC					
NPT 3/4	EX/075-M16/TC	EX/075-M20/TC	EX/075-M25/TC	EX/075-M32/TC				
NPT 1	EX/100-M16/TC	EX/100-M20/TC	EX/100-M25/TC	EX/100-M32/TC	EX/100-M40/TC			
NPT 1 1/4	EX/125-M16/TC	EX/125-M20/TC	EX/125-M25/TC	EX/125-M32/TC	EX/125-M40/TC	EX/125-M50/TC		
NPT 1 1/2	EX/150-M16/TC	EX/150-M20/TC	EX/150-M25/TC	EX/150-M32/TC	EX/150-M40/TC	EX/150-M50/TC	EX/150-M63/TC	
NPT 2	EX/200-M16/TC	EX/200-M20/TC	EX/200-M25/TC	EX/200-M32/TC	EX/200-M40/TC	EX/200-M50/TC	EX/200-M63/TC	
NPT 2 1/2	EX/250-M16/TC	EX/250-M20/TC	EX/250-M25/TC	EX/250-M32/TC	EX/250-M40/TC	EX/250-M50/TC		
NPT 3	EX/300-M16/TC	EX/300-M20/TC	EX/300-M25/TC	EX/300-M32/TC	EX/300-M40/TC	EX/300-M50/TC		EX/300-M75/TC

**For Nickel Plated Brass version, add N to the reference, e.g. EXN/M20-M16/R*
***For Stainless Steel 316 version, add S to the reference, e.g. EXS/M20-M16/R*

Connector Description:
EX - Brass
EXN - Nickel Plated Brass
EXS - Stainless Steel 316

Enlargers (/E) are used where the thread size of the Female side of the device is larger than the male side.
Reducers (/R) are used where the thread size of the female side of device is smaller than the male side.
Thread Converters (/TC) are used where a conversion is required between thread types, e.g. Metric to PG.

Our comprehensive range of Adaptors and Reducers provide a method of matching threadforms on hazardous area approved equipment whilst ensuring the integrity and approval of the installation is maintained.

Manufactured in the UK, this new range of converters meets the latest ATEX / IECEx & CSA / UL standards. This means that all the standards are marked on the product around the main body. This allows for them to be seen easily once installed, a key component of the new standard.

Kopex's Enlargers, Reducers and thread converters are designed for hazardous area applications and are certified to protection concepts Exd "Flameproof" and Exe "Increased Safety" for use in Zone 1, 2, 2.1, 2.2 applications. Under NEC Class I Div1 ABCD Class II Div1 EFG.

Related Products


EFDC Range 122


GUV Range 120


XB100 Range 104

NPT - Technical Specification

Male External Thread	NPT Female Internal Thread							
	NPT 1/2	NPT 3/4	NPT 1	NPT 1 1/4	NPT 1 1/2	NPT 2	NPT 2 1/2	NPT 3
M16	EX/M16-050/TC							
M20	EX/M20-050/TC	EX/M20-075/TC						
M25	EX/M25-050/TC	EX/M25-075/TC	EX/M25-100/TC					
M32	EX/M32-050/TC	EX/M32-075/TC	EX/M32-100/TC	EX/M32-125/TC				
M40	EX/M40-050/TC	EX/M40-075/TC	EX/M40-100/TC	EX/M40-125/TC	EX/M40-150/TC			
M50	EX/M50-050/TC	EX/M50-075/TC	EX/M50-100/TC	EX/M50-125/TC	EX/M50-150/TC	EX/M50-200/TC		
M63	EX/M63-050/TC	EX/M63-075/TC	EX/M63-100/TC	EX/M63-125/TC	EX/M63-150/TC	EX/M63-200/TC		
M75	EX/M75-050/TC	EX/M75-075/TC	EX/M75-100/TC	EX/M75-125/TC	EX/M75-150/TC	EX/M75-200/TC		
PG9	EX/PG9-050/TC							
PG11	EX/PG11-050/TC							
PG13	EX/PG13-050/TC							
PG16	EX/PG16-050/TC	EX/PG16-075/TC						
PG21	EX/PG21-050/TC	EX/PG21-075/TC	EX/PG21-100/TC					
PG29	EX/PG29-050/TC	EX/PG29-075/TC	EX/PG29-100/TC	EX/PG29-125/TC	EX/PG29-150/TC			
PG36	EX/PG36-050/TC	EX/PG36-075/TC	EX/PG36-100/TC	EX/PG36-125/TC	EX/PG36-150/TC			
PG42	EX/PG42-050/TC	EX/PG42-075/TC	EX/PG42-100/TC	EX/PG42-125/TC	EX/PG42-150/TC	EX/PG42-200/TC		
PG48	EX/PG48-050/TC	EX/PG48-075/TC	EX/PG48-100/TC	EX/PG48-125/TC	EX/PG48-150/TC	EX/PG48-200/TC		
NPT 1/2		EX/050-075/E						
NPT 3/4	EX/075-050/R		EX/075-100/E					
NPT 1	EX/100-050/R	EX/100-075/R		EX/100-125/E				
NPT 1 1/4	EX/125-050/R	EX/125-075/R	EX/125-100/R		EX/125-150/E			
NPT 1 1/2	EX/150-050/R	EX/150-075/R	EX/150-100/R	EX/150-125/R		EX/150-200/E		
NPT 2	EX/200-050/R	EX/200-075/R	EX/200-100/R	EX/200-125/R	X/200-150/R			
NPT 2 1/2	EX/250-050/R	EX/250-075/R	EX/250-100/R	EX/250-125/R	EX/250-150/R	EX/250-200/R		EX/250-300/E
NPT 3	EX/300-050/R	EX/300-075/R	EX/300-100/R	EX/300-125/R	EX/300-150/R	EX/300-200/R	EX/300-250/R	

**For Nickel Plated Brass version, add N to the reference, e.g. EXN/M20-M16/R*
***For Stainless Steel 316 version, add S to the reference, e.g. EXS/M20-M16/R*

PG - Technical Specification

Male External Thread	PG Female Internal Thread								
	PG9	PG11	PG13	PG16	PG21	PG29	PG36	PG42	PG48
M16	EX/M16-PG9/TC	EX/M16-PG11/TC	EX/M16-PG13/TC						
M20	EX/M20-PG9/TC	EX/M20-PG11/TC	EX/M20-PG13/TC	EX/M20-PG16/TC					
M25	EX/M25-PG9/TC	EX/M25-PG11/TC	EX/M25-PG13/TC	EX/M25-PG16/TC	EX/M25-PG21/TC				
M32	EX/M32-PG9/TC	EX/M32-PG11/TC	EX/M32-PG13/TC	EX/M32-PG16/TC	EX/M32-PG21/TC	EX/M32-PG29/TC			
M40	EX/M40-PG9/TC	EX/M40-PG11/TC	EX/M40-PG13/TC	EX/M40-PG16/TC	EX/M40-PG21/TC	EX/M40-PG29/TC	EX/M40-PG36/TC		
M50	EX/M50-PG9/TC	EX/M50-PG11/TC	EX/M50-PG13/TC	EX/M50-PG16/TC	EX/M50-PG21/TC	EX/M50-PG29/TC	EX/M50-PG36/TC	EX/M50-PG42/TC	
M63	EX/M63-PG9/TC	EX/M63-PG11/TC	EX/M63-PG13/TC	EX/M63-PG16/TC	EX/M63-PG21/TC	EX/M63-PG29/TC	EX/M63-PG36/TC	EX/M63-PG42/TC	EX/M63-PG48/TC
M75	EX/M75-PG9/TC	EX/M75-PG11/TC	EX/M75-PG13/TC	EX/M75-PG16/TC	EX/M75-PG21/TC	EX/M75-PG29/TC	EX/M75-PG36/TC	EX/M75-PG42/TC	EX/M75-PG48/TC
PG11	EX/PG11-PG9/R								
PG13	EX/PG13-PG9/R	EX/PG13-PG11/R							
PG16	EX/PG16-PG9/R	EX/PG16-PG11/R	EX/PG16-PG13/R		EX/P16-PG21/E				
PG21	EX/PG21-PG9/R	EX/PG21-PG11/R	EX/PG21-PG13/R	EX/PG21-PG16/R		EX/PG21-PG29/E			
PG29	EX/PG29-PG9/R	EX/PG29-PG11/R	EX/PG29-PG13/R	EX/PG29-PG16/R	EX/PG29-PG21/R		EX/PG29-PG36/E		
PG36	EX/PG36-PG9/R	EX/PG36-PG11/R	EX/PG36-PG13/R	EX/PG36-PG16/R	EX/PG36-PG21/R	EX/PG36-PG29/R		EX/PG36-PG48/E	
PG42	EX/PG42-PG9/R	EX/PG42-PG11/R	EX/PG42-PG13/R	EX/PG42-PG16/R	EX/PG42-PG21/R	EX/PG42-PG29/R	EX/PG42-PG36/R		EX/PG42-PG48/E
PG48	EX/PG48-PG9/R	EX/PG48-PG11/R	EX/PG48-PG13/R	EX/PG48-PG16/R	EX/PG48-PG21/R	EX/PG48-PG29/R	EX/PG48-PG36/R	EX/PG48-PG42/R	
NPT 1/2	EX/050-PG9/TC	EX/050-PG11/TC	EX/050-PG13/TC	EX/050-PG16/TC					
NPT 3/4	EX/075-PG9/TC	EX/075-PG11/TC	EX/075-PG13/TC	EX/075-PG16/TC	EX/075-PG21/TC				
NPT 1	EX/100-PG9/TC	EX/100-PG11/TC	EX/100-PG13/TC	EX/100-PG16/TC	EX/100-PG21/TC	EX/100-PG29/TC			
NPT 1 1/4	EX/125-PG9/TC	EX/125-PG11/TC	EX/125-PG13/TC	EX/125-PG16/TC	EX/125-PG21/TC	EX/125-PG29/TC	EX/125-PG36/TC		
NPT 1 1/2	EX/150-PG9/TC	EX/150-PG11/TC	EX/150-PG13/TC	EX/150-PG16/TC	EX/150-PG21/TC	EX/150-PG29/TC	EX/150-PG36/TC	EX/150-PG42/TC	
NPT 2	EX/200-PG9/TC	EX/200-PG11/TC	EX/200-PG13/TC	EX/200-PG16/TC	EX/200-PG21/TC	EX/200-PG29/TC	EX/200-PG36/TC	EX/200-PG42/TC	EX/200-PG48/TC

**For Nickel Plated Brass version, add N to the reference, e.g. EXN/M20-M16/R*
***For Stainless Steel 316 version, add S to the reference, e.g. EXS/M20-M16/R*

Connector Description:
EX - Brass
EXN - Nickel Plated Brass
EXS - Stainless Steel 316

Enlargers (/E) are used where the thread size of the Female side of the device is larger than the male side.
Reducers (/R) are used where the thread size of the female side of device is smaller than the male side.
Thread Converters (/TC) are used where a conversion is required between thread types, e.g. Metric to PG.

Our comprehensive range of Adaptors and Reducers provide a method of matching threadforms on hazardous area approved equipment whilst ensuring the integrity and approval of the installation is maintained.

Manufactured in the UK, this new range of converters meets the latest ATEX / IECEx & CSA / UL standards. This means that all the standards are marked on the product around the main body. This allows for them to be seen easily once installed, a key component of the new standard.

Kopex's Enlargers, Reducers and thread converters are designed for hazardous area applications and are certified to protection concepts Exd "Flameproof" and Exe "Increased Safety" for use in Zone 1, 2, 2.1, 2.2 applications. Under NEC Class I Div1 ABCD Class II Div1 EFG.

Related Products


EFDC Range 122


GUV Range 120


XB100 Range 104

Standard Ex d Stopping Plug & Tamperproof Ex d Stopping Plug

Exd stopping plugs

Approvals / Characteristics

Exd
IIC
GROUP I
GROUP II
CLASS I
DIV 1
CLASS II
DIV 1
ZONE 1
ZONE 2
IP 66

Features

- For use in potentially explosive atmospheres
- Manufactured from either Brass, Nickel Plated Brass or Stainless Steel

Certification & Standards

EC TYPE Examination Certificate:
ATEX: Baseefa 08 ATEX 6324
IECEx: IECEx BAS08.0109X
GOST R: РОСС GB.ГБ05.B03850
INMETRO: TÜV 11.0093
UL 1203 (Nickel Plated Brass and Stainless Steel only)
Ex d I Mb
Ex d IIC Gb
Class I Div 1 ABCD
Class II Div 1 EFG
Temperature: -60°C to +130°C

Standard Exd Stopping Plug

Technical Specifications

Nickel Plated Type - Metric	Thread Size Metric (mm)
EXN/M16/SP	16
EXN/M20/SP	20
EXN/M25/SP	25
EXN/M32/SP	32
EXN/M40/SP	40
EXN/M50/SP	50
EXN/M63/SP	63

Brass Type - Metric	Thread Size Metric (mm)
EX/M16/SP	16
EX/M20/SP	20
EX/M25/SP	25
EX/M32/SP	32
EX/M40/SP	40
EX/M50/SP	50
EX/M63/SP	63

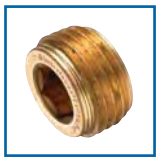
Stainless Steel Type - Metric	Thread Size Metric (mm)
EXS/M16/SP	16
EXS/M20/SP	20
EXS/M25/SP	25
EXS/M32/SP	32
EXS/M40/SP	40
EXS/M50/SP	50
EXS/M63/SP	63

Nickel Plated Type - NPT	Thread Size NPT (inch)
EXN/038/SP	3/8
EXN/050/SP	1/2
EXN/075/SP	3/4
EXN/100/SP	1
EXN/125/SP	1 1/4
EXN/150/SP	1 1/2
EXN/200/SP	2

Brass Type - NPT	Thread Size NPT (inch)
EX/038/SP	3/8
EX/050/SP	1/2
EX/075/SP	3/4
EX/100/SP	1
EX/125/SP	1 1/4
EX/150/SP	1 1/2
EX/200/SP	2

Stainless Steel Type - NPT	Thread Size NPT (inch)
EXS/038/SP	3/8
EXS/050/SP	1/2
EXS/075/SP	3/4
EXS/100/SP	1
EXS/125/SP	1 1/4
EXS/150/SP	1 1/2
EXS/200/SP	2

**Does not include M16 & 3/8 NPT or Unplated Brass products*



Tamperproof Exd Stopping Plug

Nickel Plated Type - Metric	Thread Size Metric (mm)
EXN/M16/TSP	16
EXN/M20/TSP	20
EXN/M25/TSP	25
EXN/M32/TSP	32
EXN/M40/TSP	40
EXN/M50/TSP	50
EXN/M63/TSP	63

Brass Type - Metric	Thread Size Metric (mm)
EX/M16/TSP	16
EX/M20/TSP	20
EX/M25/TSP	25
EX/M32/TSP	32
EX/M40/TSP	40
EX/M50/TSP	50
EX/M63/TSP	63

Stainless Steel Type - Metric	Thread Size Metric (mm)
EXS/M16/TSP	16
EXS/M20/TSP	20
EXS/M25/TSP	25
EXS/M32/TSP	32
EXS/M40/TSP	40
EXS/M50/TSP	50
EXS/M63/TSP	63

Nickel Plated Type - NPT	Thread Size NPT (inch)
EXN/038/TSP	3/8
EXN/050/TSP	1/2
EXN/075/TSP	3/4
EXN/100/TSP	1
EXN/125/TSP	1 1/4
EXN/150/TSP	1 1/2
EXN/200/TSP	2

Brass Type - NPT	Thread Size NPT (inch)
EX/038/TSP	3/8
EX/050/TSP	1/2
EX/075/TSP	3/4
EX/100/TSP	1
EX/125/TSP	1 1/4
EX/150/TSP	1 1/2
EX/200/TSP	2

Stainless Steel Type - NPT	Thread Size NPT (inch)
EXS/038/TSP	3/8
EXS/050/TSP	1/2
EXS/075/TSP	3/4
EXS/100/TSP	1
EXS/125/TSP	1 1/4
EXS/150/TSP	1 1/2
EXS/200/TSP	2

**Does not include M16 & 3/8 NPT or Unplated Brass products*

Related Products

XFF Range 28

EJB Range 126

GUV Range 120

XEL Range 32

Hex Head Ex e Stopping Plug / Dome Head Ex e & Nylon Stopping Plug

Ex e & nylon stopping plugs

Approvals / Characteristics

Exe | Extb | GROUP I | GROUP II | ZONE 1 | ZONE 2 | ZONE 21 | ZONE 22 | IP66 | IP65

Features

- For use in potentially explosive atmospheres
- Hex Head and Dome Head stopping plugs manufactured from either Brass, Nickel Plated Brass or Stainless Steel
- Nylon Stopping Plug manufactured in Nylon only

Certification & Standards

Hex Head Exe Stopping Plug & Dome Head Stopping Plug
EC TYPE Examination Certificate:
ATEX: Baseefa 08 ATEX 0325X
IECEx: IECEx BAS08.0108X
GOST R: РОСС GB.ГБ05.B03850
INMETRO: TÜV 11.0090
UL 1203 (Nickel Plated Brass and Stainless Steel only)
Ex e I Mb
Ex e IIC Gb
Ex tb IIIC Db
Temperature: -60°C to +80°C

Hex Head Exe Stopping Plug

Technical Specifications

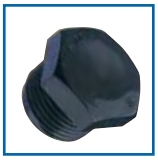
Nickel Plated Type - Metric	Thread Size Metric (mm)	Brass Type - Metric	Thread Size Metric (mm)	Stainless Steel Type - Metric	Thread Size Metric (mm)
EXN/M16/HSP	16	EX/M16/HSP	16	EXS/M16/HSP	16
EXN/M20/HSP	20	EX/M20/HSP	20	EXS/M20/HSP	20
EXN/M25/HSP	25	EX/M25/HSP	25	EXS/M25/HSP	25
EXN/M32/HSP	32	EX/M32/HSP	32	EXS/M32/HSP	32
EXN/M40/HSP	40	EX/M40/HSP	40	EXS/M40/HSP	40
EXN/M50/HSP	50	EX/M50/HSP	50	EXS/M50/HSP	50
EXN/M63/HSP	63	EX/M63/HSP	63	EXS/M63/HSP	63

**Does not include M16 & 3/8 NPT or Unplated Brass products*

Dome Head Exe Stopping Plug

Nickel Plated Type - Metric	Thread Size Metric (mm)	Brass Type - Metric	Thread Size Metric (mm)	Stainless Steel Type - Metric	Thread Size Metric (mm)
EXN/M16/DSP	16	EX/M16/DSP	16	EXS/M16/DSP	16
EXN/M20/DSP	20	EX/M20/DSP	20	EXS/M20/DSP	20
EXN/M25/DSP	25	EX/M25/DSP	25	EXS/M25/DSP	25
EXN/M32/DSP	32	EX/M32/DSP	32	EXS/M32/DSP	32
EXN/M40/DSP	40	EX/M40/DSP	40	EXS/M40/DSP	40
EXN/M50/DSP	50	EX/M50/DSP	50	EXS/M50/DSP	50
EXN/M63/DSP	63	EX/M63/DSP	63	EXS/M63/DSP	63

**Does not include M16 & 3/8 NPT or Unplated Brass products*



Nylon Stopping Plug

Nylon Type - Metric	Thread Size Metric (mm)
EX-M16	16
EX-M20	20
EX-M25	25
EX-M32	32
EX-M40	40
EX-M50	50
EX-M63	63

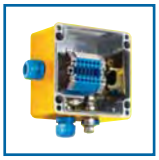
**Supplied with Locknut*

Certification & Standards

Nylon Stopping Plug
EC TYPE Examination Certificate:
IMQ 13 ATEX 016X, IECEx IMQ 13.0005X
Exe IIC Gb
Ex tb IIIC Db
IP test: IP66-IP68

Related Products

XFF Range 28



XB Range 112

GUV Range 120

EVS Range 42

Accessories

Technical Specifications

Coupler - Female to Female thread couplers for use in both Exd and Exe applications

Nickel Plated Type - Metric	Thread Size Metric (mm)	Brass Type - Metric	Thread Size Metric (mm)	Stainless Steel Type - Metric	Thread Size Metric (mm)
EXN/M16/C	16	EX/M16/C	16	EXS/M16/C	16
EXN/M20/C	20	EX/M20/C	20	EXS/M20/C	20
EXN/M25/C	25	EX/M25/C	25	EXS/M25/C	25
EXN/M32/C	32	EX/M32/C	32	EXS/M32/C	32
EXN/M40/C	40	EX/M40/C	40	EXS/M40/C	40
EXN/M50/C	50	EX/M50/C	50	EXS/M50/C	50
EXN/M63/C	63	EX/M63/C	63	EXS/M63/C	63
EXN/M75/C	75	EX/M75/C	75	EXS/M75/C	75

Nickel Plated Type - NPT	Thread Size NPT (inch)	Brass Type - NPT	Thread Size NPT (inch)	Stainless Steel Type - NPT	Thread Size NPT (inch)
EXN/038/C	3/8	EX/038/C	3/8	EXS/038/C	3/8
EXN/050/C	1/2	EX/050/C	1/2	EXS/050/C	1/2
EXN/075/C	3/4	EX/075/C	3/4	EXS/075/C	3/4
EXN/100/C	1	EX/100/C	1	EXS/100/C	1
EXN/125/C	1 1/4	EX/125/C	1 1/4	EXS/125/C	1 1/4
EXN/150/C	1 1/2	EX/150/C	1 1/2	EXS/150/C	1 1/2
EXN/200/C	2	EX/200/C	2	EXS/200/C	2
EXN/250/C	2 1/2	EX/250/C	2 1/2	EXS/250/C	2 1/2

**Does not include M16 & 3/8 NPT or Unplated Brass products*

Certification Standard: Baseefa 08 ATEX 0359U
IECEx BAS08.0121U
TÜV11.0158U

Ex de IIC Gb
Ex tb IIIC Db

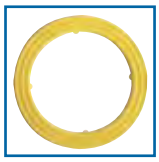
Temperature: -60°C to +200°C

Hex Locknut

Nickel Plated Type - Metric	Thread Size Metric (mm)	Nickel Plated Type - NPT	Thread Size NPT (inch)
WHMM03	16	–	3/8
WHMM04	20	WHAM04	1/2
WHMM05	25	WHAM05	3/4
WHMM06	32	WHAM06	1
WHMM07	40	WHAM07	1 1/4
WHMM08	50	WHAM08	1 1/2
WHMM09	63	WHAM09	2

Stainless Steel Type - Metric	Thread Size Metric (mm)	Brass Type - Metric	Thread Size Metric (mm)
–	16	WHMB03	16
MXWH04	20	WHMB04	20
MXWH05	25	WHMB05	25
MXWH06	32	WHMB06	32
MXWH07	40	WHMB07	40
MXWH08	50	WHMB08	50
–	63	–	63

Technical Specifications



Sealing Joint Washer - for use with all ATEX and IECEx approved products (Nylon only)

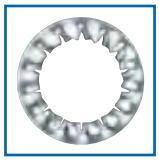
Nylon Type - Metric	Thread Size Metric (mm)	Outside Diameter (mm)	Thickness (mm)
EXFM03*	16	22	1.6
EXFM04*	20	26	1.6
EXFM05*	25	34.3	1.7
EXFM06*	32	41.5	1.7
EXFM07*	40	52	2
EXFM08*	50	66.5	2
EXFM09*	63	84.5	2

Fibre Type - Metric	Thread Size Metric (mm)	Outside Diameter (mm)	Thickness (mm)
EXFM03F	16	22	1.6
EXFM04F	20	26	1.6
EXFM05F	25	34.3	1.7
EXFM06F	32	41.5	1.7
EXFM07F	40	52	2
EXFM08F	50	66.5	2

Certification Standard: Nylon Metric approved for use with all ATEX / IECEx product

Earth Tag - to be used to create an earthing bond on an enclosure, when a cable gland is used

Brass Type - Metric	Thread Size Metric (mm)
EX/M16/TAG	16
EX/M20/TAG	20
EX/M25/TAG	25
EX/M32/TAG	32
EX/M40/TAG	40
EX/M50/TAG	50
EX/M63/TAG	63
EX/M75/TAG	75



Serrated Washer

Steel Type - Metric	Thread Size Metric (mm)
EX/M16/SER	16
EX/M20/SER	20
EX/M25/SER	25
EX/M32/SER	32
EX/M40/SER	40
EX/M53/SER	50
EX/M63/SER	63
EX/M75/SER	75

Related Products

EFDC Range 122

GUV Range 120

XB100 Range 104

EVS Range 42

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Key of Symbols

DTS & Kopex Ex Symbols

Market Segments


Utilities / Power


Food & Beverage


Marine & Shipbuilding


Onshore & Offshore


Chemical & Pharmaceutical


Mining

Product Characteristics

Ex e

Ex d

Ex n

Ex de

Ex tb

Ex t

Ex tc

Ex tD

Ex nA

Ex ia

Ex eia

Zone 0

Zone 1

Zone 2

Zone 20

Zone 21

Zone 22

Gas IIB

Gas IIC

Dust IIIC

Group I

Group II

Class I

Class II

Division 1

Division 2

IK 09

IK 10

IP 54

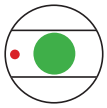
IP 56

IP 64

IP 66

IP 67

Battery LED Signals


Healthy (test OK)

Emergency or Indicator Lamp Fault (must be replaced)

Test in Progress (waiting end of test)

Fault (replace battery)

SATI

Healthy

Emergency or Indicator Lamp Fault

Test in Progress

Fault

Thomas and Betts manufacture and design a wide range of electrical equipment for hazardous and hostile environments to ensure the safety of the personnel working in them. The extensive range covers Kopex-Ex metallic and non metallic conduit and fittings and the DTS range of lighting junction and control boxes. These products are approved to a wide range of hazardous area standards including ATEX, IECEx, UL, CSA, GOST and Inmetro.

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