it's cool to be safe

explosion proof solution for the global market

Supermec

explosion proof electrical equipment

LFE / LFEE - P

LFE / LFEE-P series fluorescent light fittings are normally used in the chemical and petrochemical plants, off-shore platforms, refineries and any other industry where hazardous atmospheres (gas and combustible dust) are potentially present.
The LFE / LFEE-P range has been designed to meet the main requirements of illumination of working areas and to grant a safely evacuation of the plant in case of black-outs.

Function

The LFE-P series are used for the standard illumination while LFEE-P series are proposed with two different functions: "normal + emergency" or "only emergency" operation. The LFEE-P "only emergency operation" can be supplied with diffuser showing different safety indications (EXIT, arrows, warnings, etc.) available, on request, also in local languages. The wiring diagram of LFEE-P series is designed to provide a continuous power supply to the emergency unit so to grant its full functionality anytime. Besides a LED unit, well visible from outside, indicates the status of emergency unit through green/yellow/red colours to facilitate the maintenance activity.
The internal wiring is designed to allow any combination of loop-in loop-out installation.
The light fitting can be installed using different mounting types as described in dedicated section of this catalogue.

Construction

The materials used to manufacture the LFE / LFEE-P series have been studied to grant the maximum protection against the highly corrosive agents present in these industries:

- the body in glass fiber reinforced polyester (GRP), provides a very high mechanical strength together with a good resistance against the UV ray effects;
- the transparent diffuser in UV ray resistance polycarbonate has a self-extinguishing property according to Standard UL 94;
- the gasket on cover grants an IP66 protection level ;
- the closing system in one single spot, apart from facilitating greatly the maintenance operations, is itself a guarantee of first-rate holding system since it provides a constant pressure of seals over all the perimeter of the diffuser ;
- the internal electrical components are fully sealed to prevent any corrosive action that could cause electrical faults;
- the body has two cable entries M25x1.5 on one side and one cable entry M25x1.5 on the opposite side so to allow any loop-in loop-out installation. On request it's possible to have two cable entries M25x1.5 on both sides;
- all the light fittings are equipped, as standard, with one cable gland and two stopping plugs in polyamide, IECEx/Atex certified. Other materials or combinations are available as option;
- two kinds of lampholder: G13 for traditional T8 fluorescent tubes and G5 for new generation of T5 fluorescent tubes;
- electronic ballast, equipped with some self-protective functions, works with a multirange voltage and has a two-supply circuit design so to continue to energize one fluorescent tube in case the second one is faulty;
- internal circuit is protected by fuses so to minimize any possible problems caused by over-voltage during normal operation;

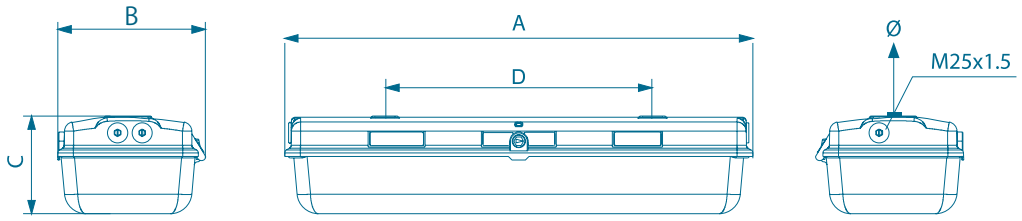
The light fitting is equipped with an interlock device mechanically connected with the internal Ex de safety switches, that automatically cut-off the power when the enclosure is opened.

Protection

certificate number:	IECEx CML 17.0098X CML 17 ATEX 1210X
marking:	Ⓔx II 2GD Ex db e mb q IIC T4 Gb Ex tb IIIC T83°C / T98°C Db
ambient temperature:	-25°C +40°C -25°C +55°C
degree of protection:	IP66
conformity:	Directive ATEX 2014/34/EU
standards:	IEC-EN60079-0 / IEC-EN60079-1 / IEC-EN60079-5
	IEC-EN60079-7 / IEC-EN60079-18 / IEC-EN60079-31
category:	suitable for Zone 1 – 2 (gas) and Zone 21 – 22 (dust)

LFE -P Explosion proof Fluorescent Light Fitting

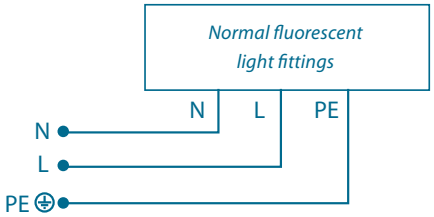
	overall dimensions and weight				fixing dimensions		electrical data		
code	A	B	C	kg	D	ø	lampholder	power	voltage
LFE 114P	698	222	145	4.8	400	M8	G5 bi-pin	1 x 14 W	AC 110-240V 50/60Hz.
LFE 118P	698	222	145	4.8	400	M8	G13 bi-pin	1 x 18 W	AC 110-240V 50/60Hz.
LFE 128P	1310	222	145	7.7	800	M8	G5 bi-pin	1 x 28W	AC 110-240V 50/60Hz.
LFE 136P	1310	222	145	7.7	800	M8	G13 bi-pin	1 x 36 W	AC 110-240V 50/60Hz.
LFE 214P	698	222	145	5.0	400	M8	G5 bi-pin	2 x 14 W	AC 110-240V 50/60Hz.
LFE 218P	698	222	145	5.0	400	M8	G13 bi-pin	2 x 18 W	AC 110-240V 50/60Hz.
LFE 228P	1310	222	145	7.9	800	M8	G5 bi-pin	2 x 28W	AC 110-240V 50/60Hz.
LFE 236P	1310	222	145	7.9	800	M8	G13 bi-pin	2 x 36 W	AC 110-240V 50/60Hz.

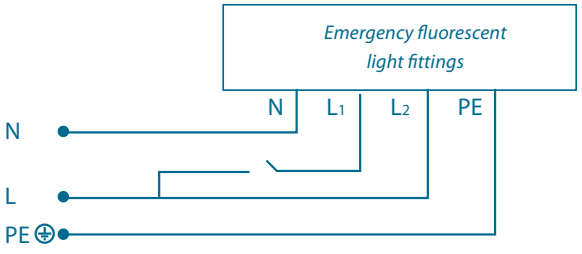


LFEE -P Explosion proof Emergency Fluorescent Light Fitting

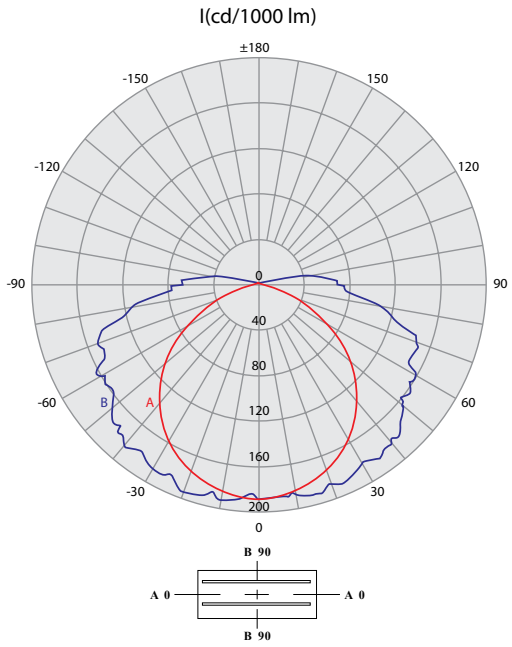
	overall dimensions and weight				fixing dimensions		electrical data		
code	A	B	C	kg	D	ø	power normal	power emergency	emergency time
LFEE 014P	698	222	145	6.6	400	M8	1 x 14 W	1 x 14 W	120 minutes
LFEE 018P	698	222	145	6.6	400	M8	1 x 18 W	1 x 18 W	120 minutes
LFEE 028P	1310	222	145	9.7	800	M8	1 x 28W	1 x 28W	120 minutes
LFEE 036P	1310	222	145	9.7	800	M8	1 x 36 W	1 x 36 W	120 minutes
LFEE 114P	698	222	145	6.6	400	M8	1 x 14 W	1 x 14 W	120 minutes
LFEE 118P	698	222	145	6.6	400	M8	1 x 18 W	1 x 18 W	120 minutes
LFEE 128P	1310	222	145	9.7	800	M8	1 x 28W	1 x 28W	120 minutes
LFEE 136P	1310	222	145	9.7	800	M8	1 x 36 W	1 x 36 W	120 minutes
LFEE 214P	698	222	145	6.8	400	M8	2 x 14 W	1 x 14 W	120 minutes
LFEE 218P	698	222	145	6.8	400	M8	2 x 18 W	1 x 18 W	120 minutes
LFEE 228P	1310	222	145	9.9	800	M8	2 x 28W	1 x 28W	120 minutes
LFEE 236P	1310	222	145	9.9	800	M8	2 x 36 W	1 x 36 W	120 minutes

Wiring Diagrams

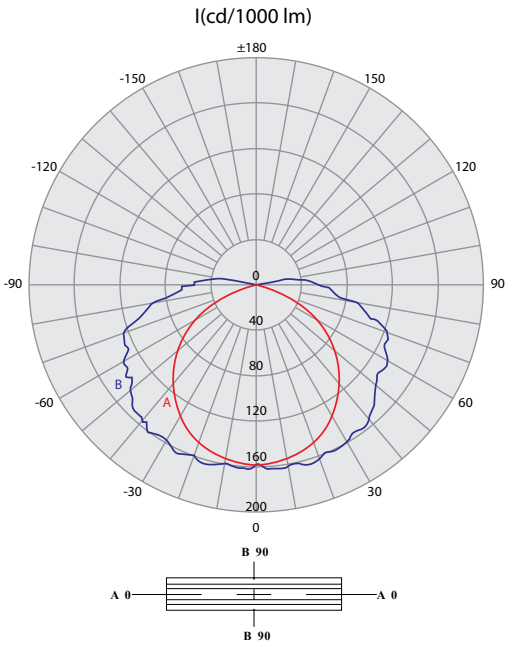




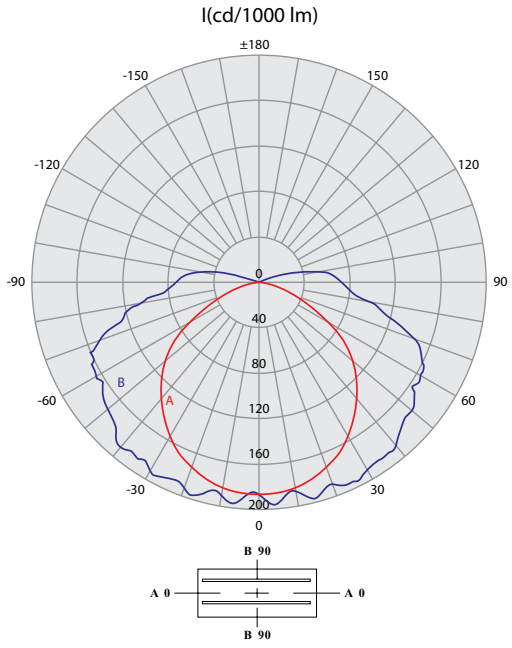
Polar Diagrams



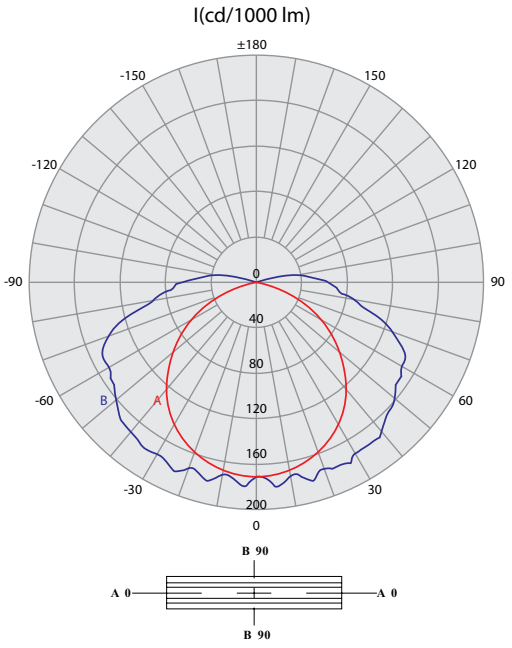
2 x 14 W



2 x 28 W



2 x 18 W



2 x 36 W