FLFE..L
FLF..L

- Zone 1, 2, 21, 22
- With LED tubes
- Easy re-lamping
- Designed to last over time

"Ex e" terminal board housing

Simplified maintenance

4 Joule shock resistant borosilicate glass

White painted reflector/frame

Ex d execution type FLF..L

CORTEM GROUP®

Lighting fixtures for LED tubes FLFE-...L (Ex de) and FLF-...L (Ex d) series have two low copper content aluminium heads fitted with G13 lamp holder, a tempered borosilicate glass tube that is resistant to changes in heat and a white painted aluminium reflector. The 'Ex de' lighting fixture features an "Ex e" terminal board housing that allows entry to the lamp with a cable gland with an "Ex" seal (normal) as specified in installation standard (EN/IEC 60079.14). The entry to the 'Ex d' lighting fixtures must be through an Ex "barrier" cable gland (sealed) or, in the case of a conduit system, with an EYS, EZS series sealing fittings. The round cross section of the lamp provides a better "Cx" coefficient with less resistance to the wind and less accumulation of dust. For this reason, these units are recommended for use in hazardous places where climatic and environmental conditions are severe and as they require less maintenance thanks to a very high ageing index. As the electrical components are housed on a frame with guides, re-lamping is quick and efficient. The fact that the fixture is fitted with a glass tube as opposed to a plastic material, makes it more effective and with a longer lifespan.

Application sectors:

CERTIFICATION DATA

Classification: 94/9/EC	Group II	Category 2GD			
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)			
Marking:	CE 0722 Ex II 2GD Ex de IIC T6 Gb - Ex tb IIIC T67°C÷T80°C Db IP66				
	CE 0722 Ex II 2GD Ex d IIC T6 Gb - Ex tb IIIC T67°C÷T80°C Db IP66				
Certification:	ATEX CESI 09 ATEX 008				
	IECEx CES 11.0021	All IEC Ex, GOST R and INMETRO certification data can be downloaded at www.cortemgroup.com			
	GOST R AVAILABLE				
	INMETRO DNV 12.0159				
Standards:	CENELEC EN 60079-0: 2012, EN 60079-7: 2007, EN 60079-31: 2009 and EUROPEAN DIRECTIVE 94/9/EC: 1994 IEC 60079-0:2004, IEC 60079-1:2007, IEC 60079-7:2006, IEC 61241-0:2004, IEC 61241-1:2004 European Directive 2006/95 Low voltage European Directive 2004/108 Electromagnetic compatibility European Directive 2003/108 WEEE Waste electrical and electronic equipment European Directive 2011/64 RoHS				
Class temperature:	85°C (T6)				
Ambient temperature:	normal -20°C +55°C				
Degree of protection:	IP66				

FLFE-...L (Ex de)

FLF-...L (Ex d)

ORIGINAL PRODUCT

MECHANICAL FEATURES

Body:	Low copper content aluminium alloy heads
External tube:	Shock and high temperature resistant borosilicate glass
Gaskets:	Acid/hydrocarbon resistant NBR on covers
Inner frame:	White painted aluminium that acts as reflector
Bolts and screws:	Stainless steel
Cap chain:	Stainless steel
Mounting:	2 x M8 holes
Entries:	2 x ISO M25 entries. Fixture kit with PLG2IB plug and REV2IB cable gland
Coating:	Epoxy coating Ral 7035 (Light grey)
Corrosion Resistance :	The STANDARD of the aluminium alloy used by Cortem has passed the tests required by standards EN60068-2-30 (hot/humid cycles) and EN60068-2-11 (salt mist tests)

ELECTRICAL FEATURES

Lamp holders:	Bi-pin G13
Rated voltage:	220/240 V AC
Rated frequency:	50/60 Hz
LED tubes:	11-22-31 W
Connection:	Direct to the terminal board L, N, Pe section 4 mm^2 with jumpers suitable for input/output
Wiring:	Silicone rubber cables with glass braid insulation for high temperatures

ACCESSORIES AVAILABLE / SPECIAL REQUESTS

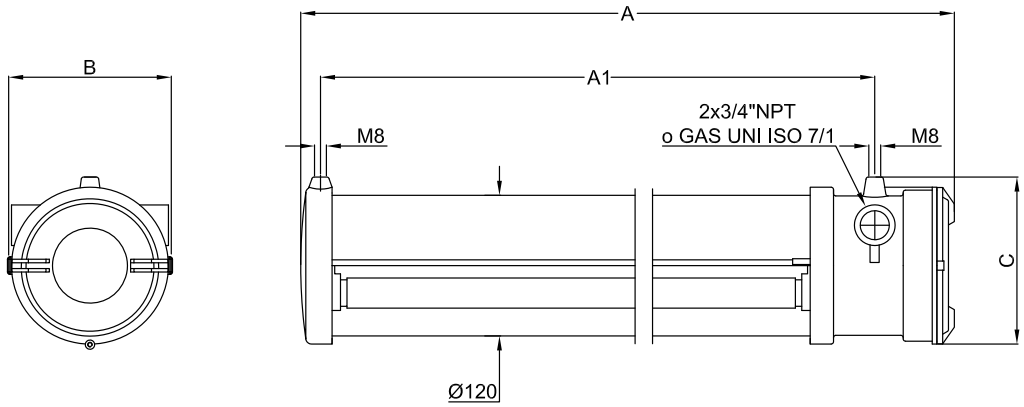
Installation mounting brackets
Stainless steel or galvanized steel guard with external aluminium protection
External aluminium protection recommended for outdoor installations
Re-lamping bracket for use on in-line lighting fixtures
Cable gland: FGAB2NBK for armoured cable or FB2NBK for non-armoured cable (only for FLF...L)

Ex de lighting fixtures

Code	Dimensions mm A	A1	B	C	N° of lamps	Power supply	Watt	Weight Kg	mm
FLFE-111L	725	640	142	197	1	220/240 Vac	11	5,0	240x230x800
FLFE-211L	725	640	142	197	2	220/240 Vac	11	5,0	240x230x800
FLFE-122L	1325	1240	142	197	1	220/240 Vac	22	7,8	240x230x1410
FLFE-222L	1325	1240	142	197	2	220/240 Vac	22	7,8	240x230x1410
FLFE-131L	1625	1540	142	197	1	220/240 Vac	31	9,5	240x230x1700
FLFE-231L	1625	1540	142	197	2	220/240 Vac	31	9,5	240x230x1700

Dimensions in mm

DIMENSIONAL DRAWING

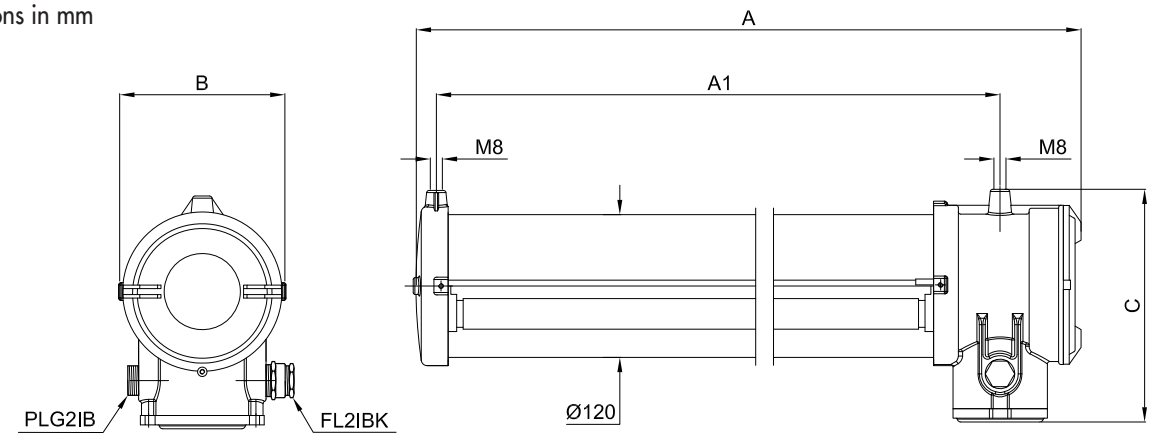


Ex d lighting fixtures

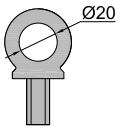
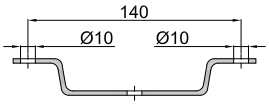
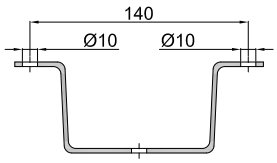
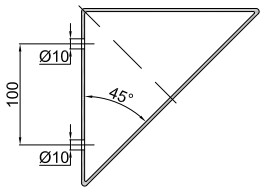
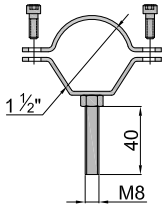
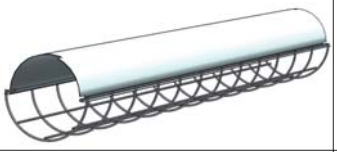
Codice	Dimensioni mm A	A1	B	C	Lampade n°	Alimentazione	Watt	Peso Kg	mm
FLF-111L	725	640	142	145	1	220/240 Vac	11	4,5	240x230x800
FLF-211L	725	640	142	145	2	220/240 Vac	11	4,5	240x230x800
FLF-122L	1325	1240	142	145	1	220/240 Vac	22	7,3	240x230x1410
FLF-222L	1325	1240	142	145	2	220/240 Vac	22	7,3	240x230x1410
FLF-131L	1625	1540	142	145	1	220/240 Vac	31	9,0	240x230x1700
FLF-231L	1625	1540	142	145	2	220/240 Vac	31	9,0	240x230x1700

Dimensions in mm

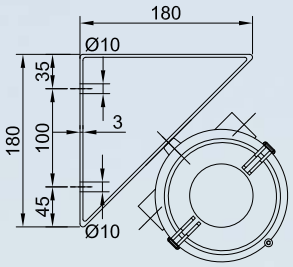
DIMENSIONAL DRAWING



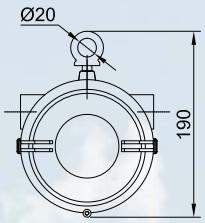
FLFE...L, FLF...L series Accessories and spare parts available

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	LED tubes G13 fitting	11 W 22 W 31 W	Contact our Sales Office for availability		
	Tige	Length: 250 mm	Material: stainless steel	**BRF8MIN/250**	
	Type O eyebolt		Material: galvanised steel	**GOF-8**	
	Type U bracket		Material: galvanised steel	**G-244**	
	Type V bracket		Material: galvanised steel	**G-263**	
	Type D bracket		Material: galvanised steel	**G-258**	
	Type P bracket		Material: galvanised steel	**G-0480**	
	Guard with Light blue/white painted 20/10 aluminium external protection		Stainless steel guard	**G36-0529**	
			Galvanised steel guard	**G36-0529G**	
	External protection		Light blue/white painted 20/10 aluminium external protection	**G36-568**	
	Cable gland		For models and codes, visit www.cortemgroup.com	**FB2NBK** **FGAB2NBK**	
	Lamp holder	FLF..-1..L	G13 250 V, 4 A	**STU3249-12/S**	
		FLF..-2..L		**STU254/S**	
	Re-lamping bracket with clip system for use on in-line lighting fixtures		Material: galvanised steel	**G-0318** + **G-0318/1**	

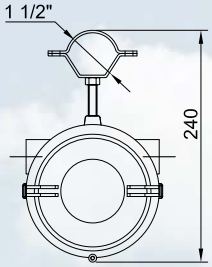
Installation and mounting methods and photometric diagrams



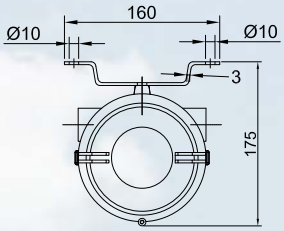
45° angle mounting TYPE "D"



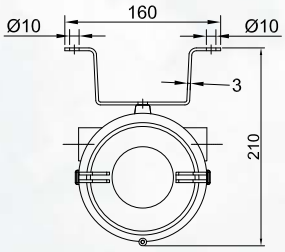
Pendant mounting with eyebolt TYPE "O"



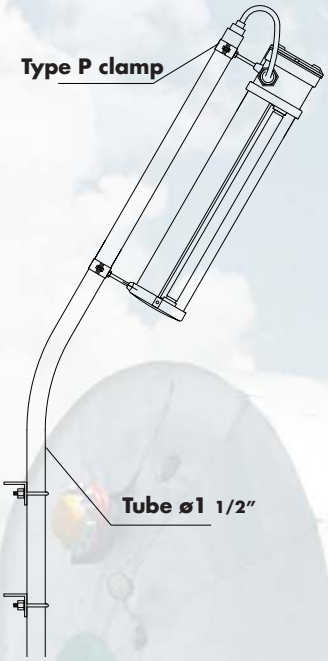
Mounting using 1.1/2" metal clamps TYPE "P"



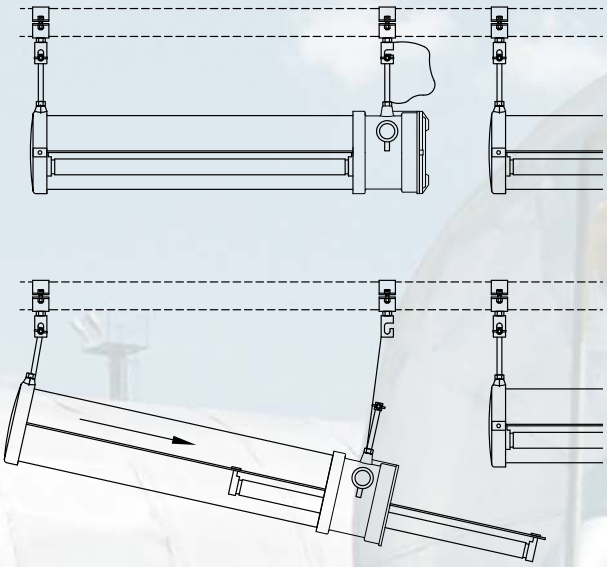
Low ceiling mounting with clamp TYPE "U"



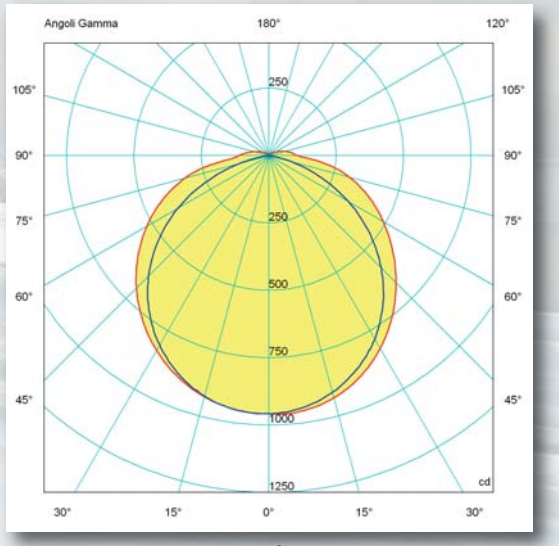
High ceiling mounting with clamp TYPE "V"



Pole mounting for FLF...L with barrier cable gland



Mounting system with quick release clip for easy fluorescent tube replacement. System suitable for installing in-line lighting fixtures.



FLFE-222L / FLF-222L

Cortem Group can supply photometric diagram files on request for use in special lighting design projects.
Contact the Sales Office for further information

= plane 90270

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