

# Lighting: Fluorescent & LED Lighting Fixture, DFP-C Series (Capsule end cap)

Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

## Application

The DFP series can be used all over the world and are suited for lighting applications in hazardous areas, e.g. onshore, offshore platforms or refineries. The different light families allow their optimum use in various environments.

The DFP series consist of a glass tube with two end caps. They are for installation of both single and double T5 and T8 bi-pin fluorescent or LED tube. The end cap and threaded capsule housing for ballast and terminals connection.

## Specification

- Body material : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (grey) (optional offshore painting- acrylic polyurethane coating)
- Glass tube : Borosilicate glass (4J impact)
- Reflector : Sheet steel with polyester powder coated, RAL 9016 (white)
- Protective guard : Stainless steel, SUS 304 (optional SUS 316)
- Bolts : Stainless steel, SUS 304 (optional SUS 316)
- Sealing (O-ring) : Silicone

## Electrical for Emergency unit

- Operation : Maintained mode
- Battery : Ni-MH, 4.8V, 4Ah.
- Recharge time : 16-24 hours, continuous battery recharge
- Emergency duration : 120Min. (2-Hours)

## Technical Data

<b>Hazardous Area</b>	<b>Gas</b>	<b>Dust</b>
<b>Zones</b>	<b>1 &amp; 2</b>	<b>21 &amp; 22</b>
<b>Equipment Group/Category</b>	<b>Ex II 2G</b>	<b>Ex II 2D</b>
<b>Symbol of Protection</b>	<b>Ex d IIB T6 Gb</b>	<b>Ex tb IIIC T85°C Db</b>
<b>Certificate No.</b>	<b>Sira 12 ATEX 1311X</b>	
<b>Conformity to Standards</b>	EN 60079-0:2012, EN 60079-1:2007, EN 60079-31:2009	
<b>Ambient Temperature</b>	-20°C to +50°C	
<b>Index of Protection</b>	IP66	

<b>Entries</b>	2- M20x1.5, 2- M25x1.5 (1-stopping plug) or 2- 1/2" NPT, 2- 3/4" NPT (1-stopping plug)
<b>Mounting</b>	Ceiling (standard), Pendant or Bracket
<b>Connection</b>	L, N and PE ; for 1-4mm. <sup>2</sup> cable (Through wiring system with an extra terminal block for cable connection at both ends.)
<b>Rated Voltage</b>	110-240V.ac 50/60Hz. (P.F. ≥ 0.98)



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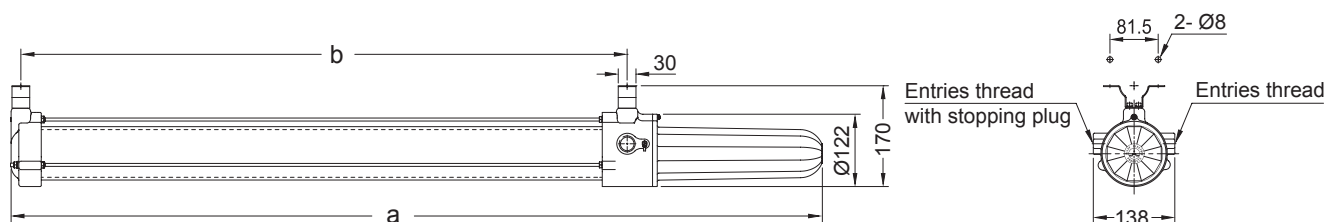
## Catalogue Number Logic

<b>DFP</b> - ■■■■ ■■■■ ○ - <b>C</b> <b>D</b> - □ □							
<b>Series</b>	<b>Lamp Watt</b> (see ordering requirement table below)	<b>Type</b>	<b>Accessories</b>	<b>Body</b>	<b>LED Driver</b>	<b>Entries</b>	<b>Mounting</b>
		<b>L4</b> Fluorescent lamp <b>LED</b> LED tube	<b>G</b> Protective guard <b>R</b> External reflector <b>E</b> Emergency power unit	<b>C</b> Capsule end cap	<b>D</b> with driver (25W LED tube)	<b>M1</b> M20x1.5 <b>M2</b> M25x1.5 <b>N1</b> 1/2" NPT <b>N2</b> 3/4" NPT	<b>C</b> Ceiling (standard) <b>C1</b> Ceiling (for pipe), Fixed <b>C2</b> Ceiling (for pipe), Swing <b>P1</b> Pendant (for chain) <b>P2</b> Pendant (for pipe) <b>B</b> Bracket

## Ordering Requirements and Dimension

Cat. No.	Lamp Watt	Voltage	Ballast	Temp. Class (for zone 1 & 2)		Max. Surface Temp.* (for zone 21 & 22)		Volume (cm <sup>3</sup> )	Dimension in mm.		Approx. Weight (kgs.)	
				Ta 40°C	Ta 50°C	Ta 40°C	Ta 50°C		a	b		
<b>T8 Fluorescent Lamp</b>												
DFP-118L4 ○ - □□	1x 18W.	220-240V.ac 50/60Hz.	Electronic	T6	T6	T85°C	T85°C	3,950	1005	645	6.1	
DFP-218L4 ○ - □□	2x 18W.								1618	1258		
DFP-136L4 ○ - □□	1x 36W.							7,020	1618	1258	9.1	
DFP-236L4 ○ - □□	2x 36W.											
<b>T5 Fluorescent Lamp</b>												
DFP-114L4 ○ - □□	1x 14W.	220-240V.ac 50/60Hz.	Electronic	T6	T6	T85°C	T85°C	3,950	1005	645	6.1	
DFP-214L4 ○ - □□	2x 14W.								1618	1258		
DFP-128L4 ○ - □□	1x 28W.							7,020	1618	1258	9.1	
DFP-228L4 ○ - □□	2x 28W.											
<b>LED Tube</b>												
DFP-109LED ○ - C - □□	1x 9W.	110-240V.ac 50/60Hz.	-	T6	T6	T85°C	T85°C	3,950	1005	645	6.1	
DFP-209LED ○ - C - □□	2x 9W.								1618	1258		
DFP-111LED ○ - C - □□	1x 11W.							7,020	1618	1258	9.1	
DFP-211LED ○ - C - □□	2x 11W.											
DFP-118LED ○ - C - □□	1x 18W.											
DFP-218LED ○ - C - □□	2x 18W.											
DFP-120LED ○ - C - □□	1x 20W.											
DFP-220LED ○ - C - □□	2x 20W.											
DFP-121LED ○ - C - □□	1x 21W.											
DFP-221LED ○ - C - □□	2x 21W.											
DFP-122LED ○ - C - □□	1x 22W.											
DFP-222LED ○ - C - □□	2x 22W.											
DFP-125LED ○ - CD - □□	1x 25W.											110-240V.ac 50/60Hz.
DFP-225LED ○ - CD - □□	2x 25W.											

Lighting source; cool white (6500K) are standard and/or warm white (3000K), please specify.

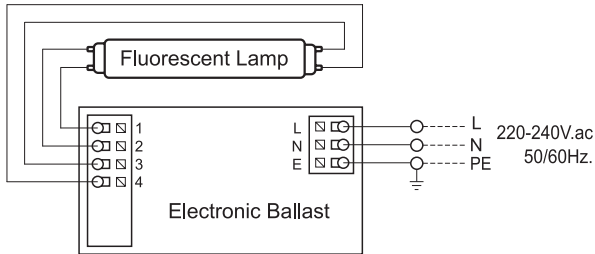


### Remark:

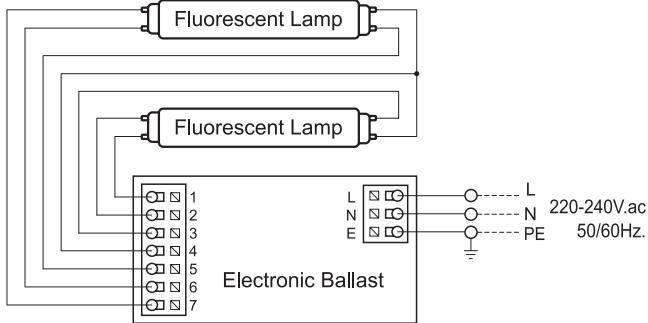
\* The maximum surface temperatures are specified for dust free condition. The dust layer which may cover around the lighting fixture will cause to higher surface temperature.

## Wiring Diagram

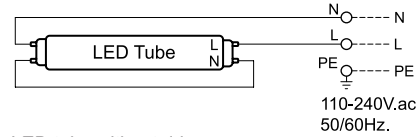
Electronic ballast for fluorescent lamp;  
1x 14W., 18W., 28W., 32W. and 36W.



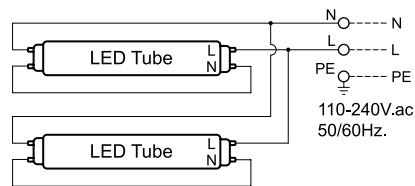
Electronic ballast for fluorescent lamp;  
2x 14W., 18W., 28W., 32W. and 36W.



LED tube without driver  
1x Lamp (Single-ended)



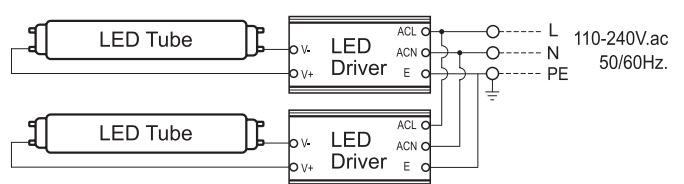
LED tube without driver  
2x Lamp (Single-ended)



LED tube with driver  
1x 25W (Double-ended)



LED tube with driver  
1x 25W (Double-ended)

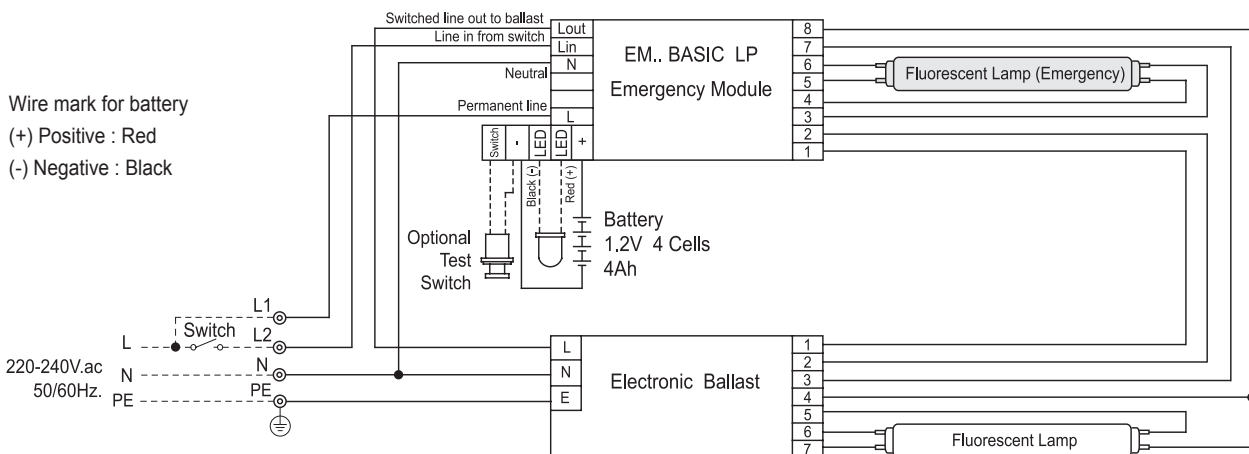


Emergency unit for fluorescent lamp; 2x 36W.

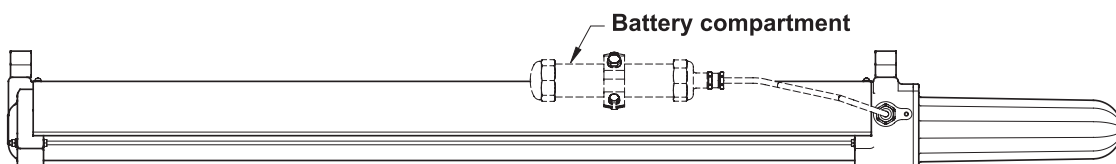
Wire mark for battery

(+) Positive : Red

(-) Negative : Black



When the fluorescent lighting fixtures are utilised with battery back-up, the threaded capsule housing contains an emergency control unit.



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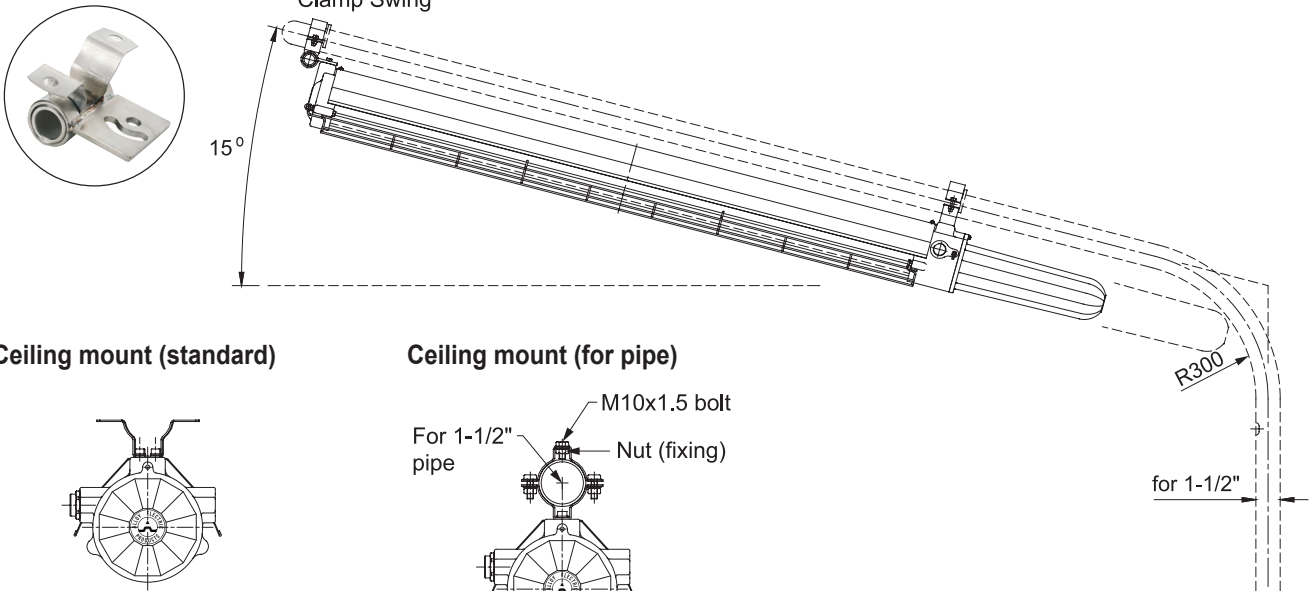
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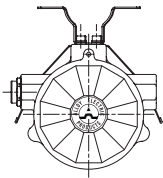


## Installation Information

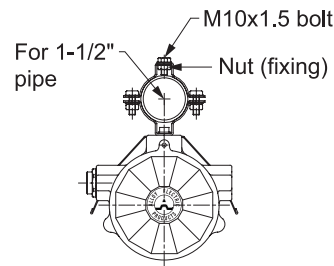
### Pole mount



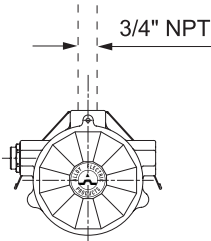
### Ceiling mount (standard)



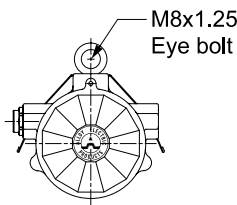
### Ceiling mount (for pipe)



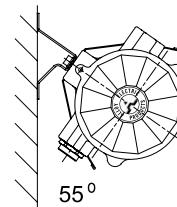
### Pendant mount (for pipe)



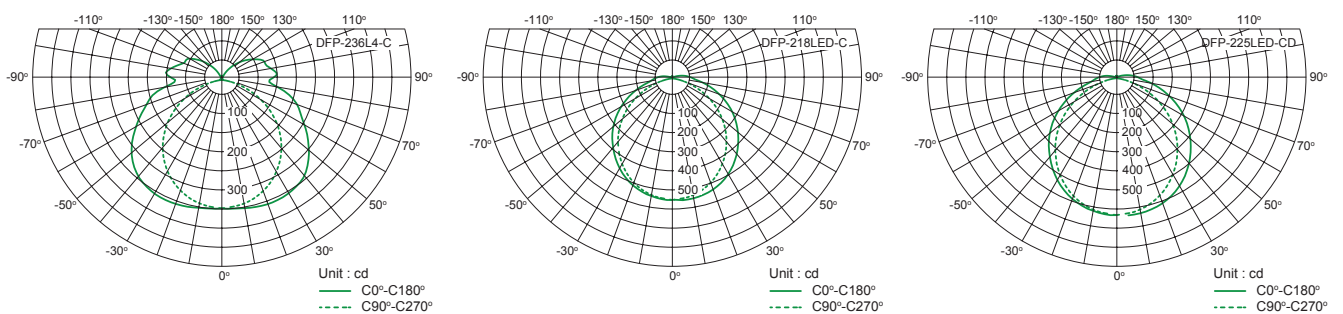
### Pendant mount (for chain)



### Bracket mount (or wall mount)



## Luminous Intensity Distribution Curve



Complete photometrics, please contact us.

