

Lighting: Fluorescent & LED Lighting Fixture, DFP-S Series (Short end cap)

Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

Application

The DFP-S series can be used worldwide and is suitable for lighting applications in hazardous areas, such as onshore and offshore platforms or refineries. The different light families ensure optimal performance in various environments.

The DFP-S series consists of a glass tube with two end caps. It is designed for the installation of both single and double T8 and T5 bi-pin fluorescent tubes, LED tubes, or LED PCBs. The end cap and threaded housing contain the ballast and terminal connections.

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, SS 304 (optional SS 316)
Bolts	: Stainless steel, SS 304 (optional SS 316)
Sealing (O-ring)	: Silicone

Product Features

LED tube	: meet TIS 2779-2562
Colour Rendering Index (CRI)	: ≥80
Colour temperature	: 3,000 K or 6,500 K
Luminous efficacy	: 100-150 lm/W
Power factor	: >0.95
Beam angle	: average 115-120°

Fixture Life

- L70 - rated lifetime of 54,000 hours at an ambient temperature of 100°C.

Electrical for Emergency unit

Operation	: Maintained mode
Battery	: Ni-MH, 7.2 V, 2.5 Ah
Recharge time	: 16-24 hours, continuous battery recharge
Emergency starting time	: ≤ 0.5 seconds
Emergency duration	: 120 minutes (2 hours) (optional Ni-MH, 7.2 V, 2x 2.5 Ah battery for 3 hours)

Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Equipment Group/Category	Ex db IIC 2G	Ex tb IIIC 2D
Symbol of Protection	Ex db IIC T6 Gb	Ex tb IIIC T85°C Db
Certificate	TÜV CY 17 ATEX 0205887X	
Conformity to Standards	EN IEC 60079-0, EN 60079-1, EN IEC 60079-31	
Ambient Temperature	-20°C to +55°C	
	0°C to +55°C (with emergency battery)	
Index of Protection	IP66	
Entry Threads	2x M20x1.5, 2x M25x1.5 (with 1x stopping plug) or 2x 1/2" NPT, 2x 3/4" NPT (with 1x stopping plug)	
Mounting	Ceiling, Pendant, Bracket, Stanchion or Pole mount	
Connection	L, N and PE ; for 1-4 mm² cable	
Rated Voltage	110-240 V AC, 50/60 Hz (P.F. ≥ 0.98)	

Connection

Standard  Screw terminal 1.0-4.0 mm²	Optional (socket+plug)  Push-in cage clamp 1.0-4.0 mm²	Optional (1-Ea/phase)  Splicing Connector 1.0-6.0 mm²
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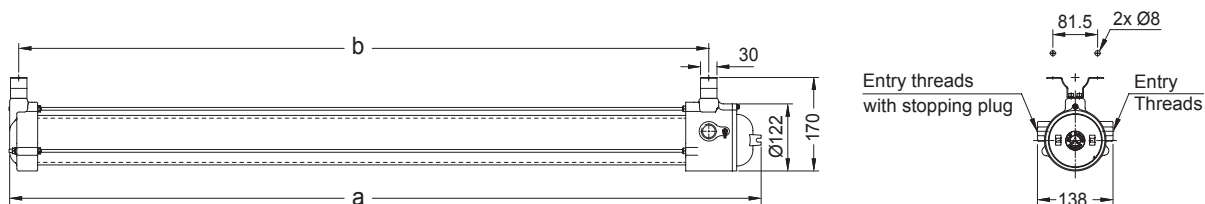
Catalogue Number Logic

DFP	-	■ ■ ■ ■	■ ■ ■ ■	○	-	S	D	-	□	□
Series		Lamp watt (see ordering requirement table below)	Lamp type L4 Fluorescent lamp LED LED tube	Accessories G Protective guard R External reflector E Emergency power unit		Body S Short end cap	LED driver none Built-in driver D Driver required		Entry threads M1 M20x1.5 M2 M25x1.5 N1 1/2" NPT N2 3/4" NPT	Mounting C Ceiling (standard) C1 Ceiling (for pipe), Fixed C2 Ceiling (for pipe), Swing P1 Pendant (for chain) P2 Pendant (for pipe) B Bracket

Ordering Requirements and Dimensions

Cat. No.	Lamp watt	Voltage	Ballast	Temp. Class (for zone 1 & 2)		Max. Surface Temp.* (for zone 21 & 22)		Volume (cm³)	Dimensions in mm		Approx. weight (kg)	
				Ta 40°C	Ta 50°C	Ta 40°C	Ta 50°C		a	b		
T8 fluorescent lamp												
DFP-118L4	○ - □□	1x 18 W	220-240 V AC, 50/60 Hz	Electronic	T6	T6	T85°C	T85°C	3,950	1,005	645	6.1
DFP-218L4	○ - □□	2x 18 W										
DFP-136L4	○ - □□	1x 36 W							7,020	1,618	1,258	9.1
DFP-236L4	○ - □□	2x 36 W										
T5 fluorescent lamp												
DFP-114L4	○ - □□	1x 14 W	220-240 V AC, 50/60 Hz	Electronic	T6	T6	T85°C	T85°C	3,950	1,005	645	6.1
DFP-214L4	○ - □□	2x 14 W										
DFP-128L4	○ - □□	1x 28 W							7,020	1,618	1,258	9.1
DFP-228L4	○ - □□	2x 28 W										
LED tube (Single-ended, Built-in driver)												
DFP-109LED	○ - C - □□	1x 9 W	110-240 V AC, 50/60 Hz	—	T6	T6	T85°C	T85°C	3,950	1,005	645	6.1
DFP-209LED	○ - C - □□	2x 9 W										
DFP-111LED	○ - C - □□	1x 11 W							7,020	1,618	1,258	9.1
DFP-211LED	○ - C - □□	2x 11 W										
DFP-118LED	○ - C - □□	1x 18 W										
DFP-218LED	○ - C - □□	2x 18 W										
DFP-120LED	○ - C - □□	1x 20 W										
DFP-220LED	○ - C - □□	2x 20 W										
DFP-121LED	○ - C - □□	1x 21 W										
DFP-221LED	○ - C - □□	2x 21 W										
DFP-122LED	○ - C - □□	1x 22 W										
DFP-222LED	○ - C - □□	2x 22 W										
LED tube (72 V DC, Double-ended) – Requires an external driver												
DFP-125LED	○ - CD - □□	1x 25 W	110-240 V AC, 50/60 Hz	LED driver	T6	T6	T85°C	T85°C	7,020	1,618	1,258	9.1
DFP-225LED	○ - CD - □□	2x 25 W										

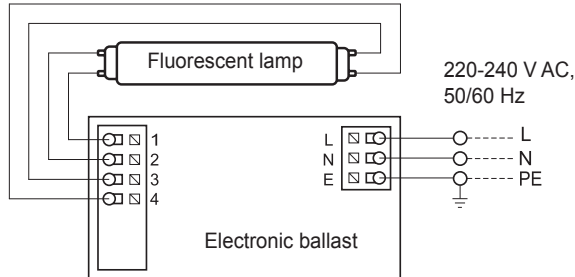
Lighting source; daylight (6,500 K) are standard and/or warm white (3,000 K), please specify.



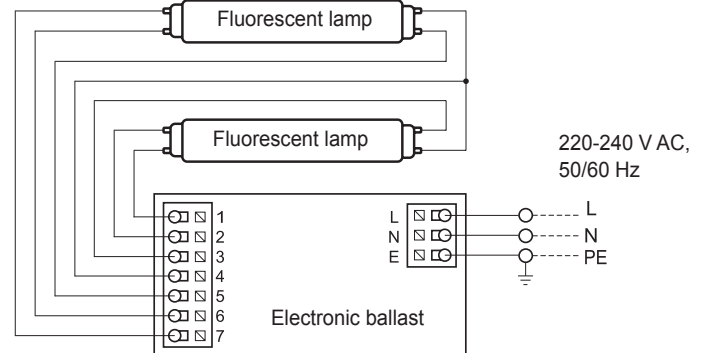
Remark *: The maximum surface temperatures are specified for dust free condition. The dust layer which may cover around the lighting fixture will cause to higher surface temperature.

Wiring Diagram

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

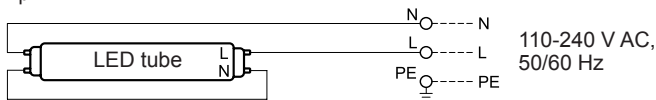


Electronic ballast for fluorescent lamp;
2x 14 W, 2x 28 W, 2x 18 W and 2x 36 W

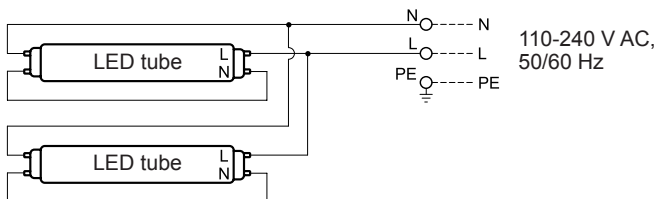


LED tube (Single-ended, Built-in driver)

1x Lamp

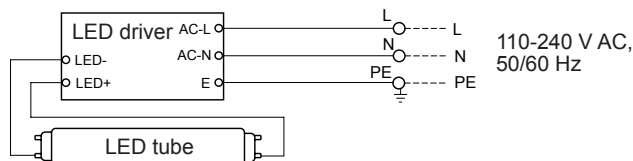


2x Lamp



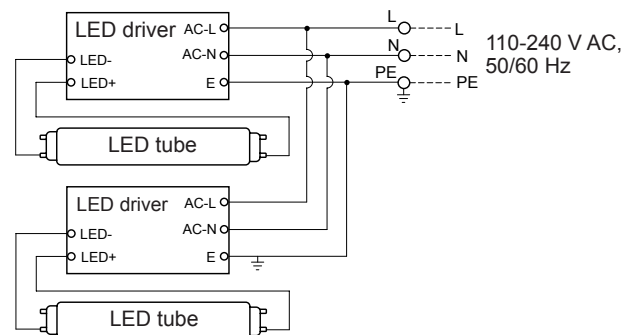
LED tube: requires an external driver

1x 25 W (72 V DC, Double-ended)



LED tube: requires an external driver

2x 25 W (72 V DC, Double-ended)



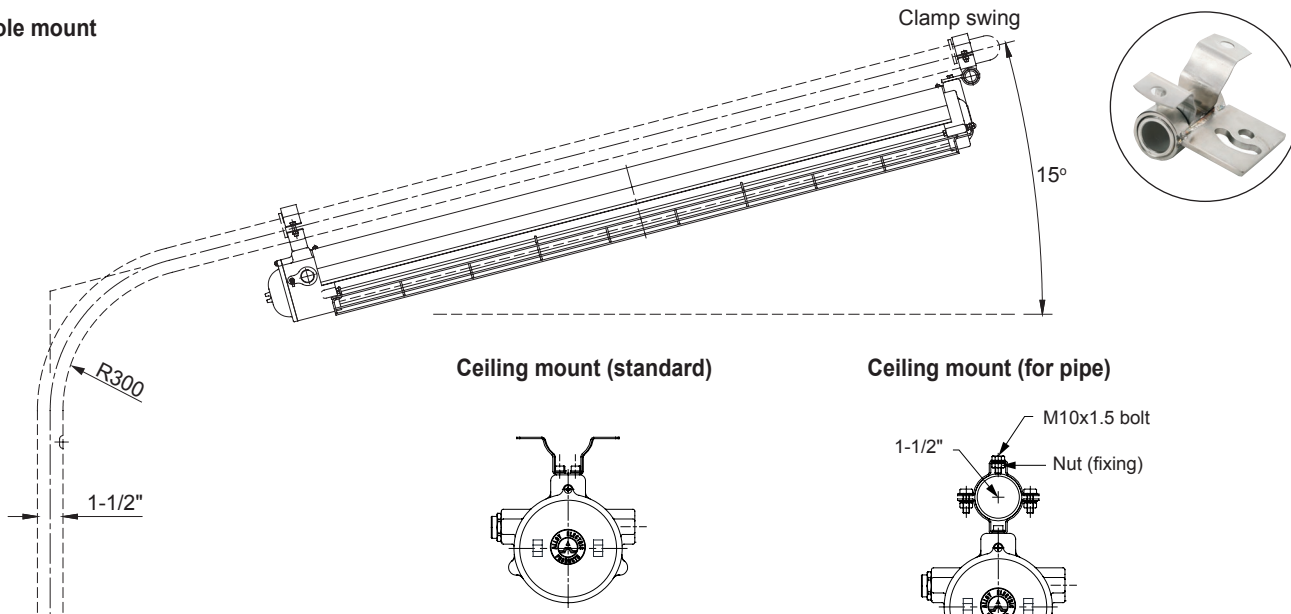
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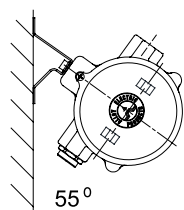
Zone 1 & 2 – 21 & 22

Installation Information

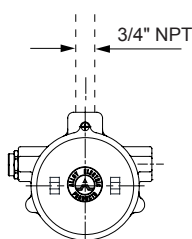
Pole mount



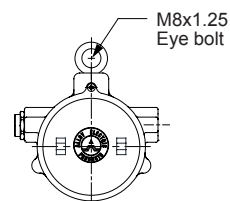
Bracket mount (or wall mount)



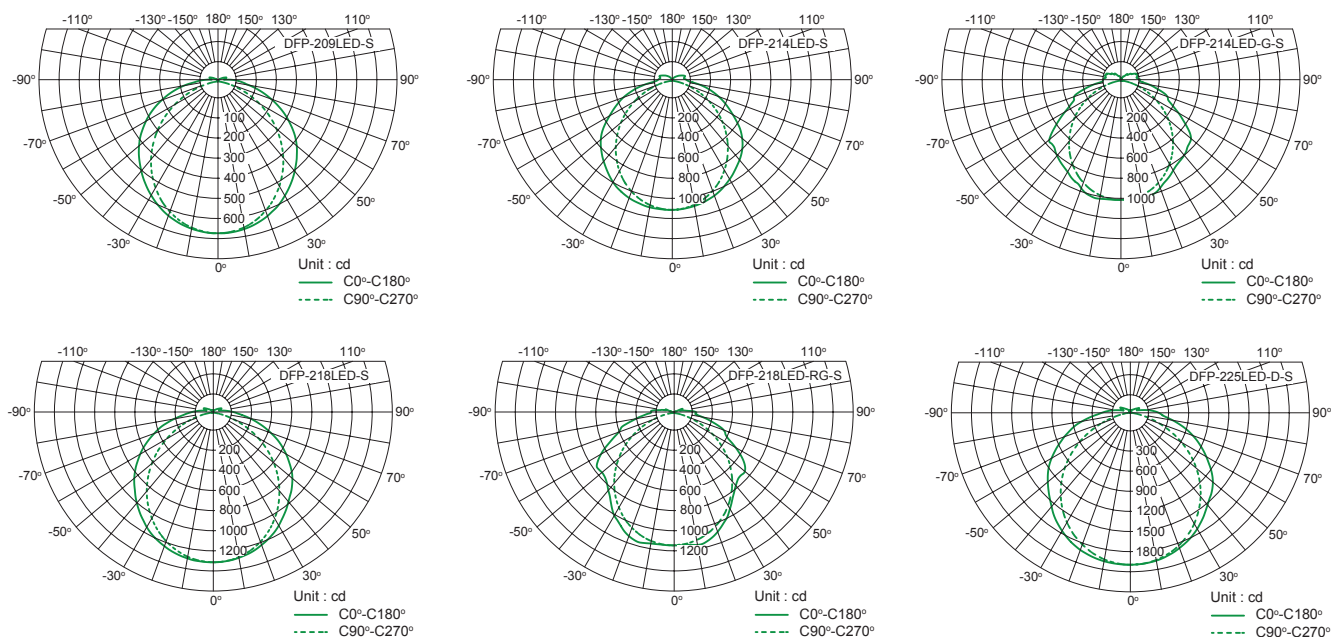
Pendant mount (for pipe)



Pendant mount (for chain)



Luminous Intensity Distribution Curve



Complete photometrics, please contact us.