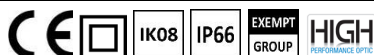


T-LED4

T-LED4

MAIN CHARACTERISTICS

Applications	Tunnel lighting. Suitable for reinforcement and permanent lighting in road tunnels.
Optic	<i>Suitable for central/offset mounting :</i> AS-xx: Asymmetrical optics for reinforcement lighting of road tunnels. TS-xx: Symmetrical optics for reinforcement and permanent lighting of road tunnels. <i>Suitable for side mounting :</i> SV: Asymmetrical optic - extra narrow beam. STE-S / STU-S: Asymmetrical optics – narrow beam. STE-M / STU-M: Asymmetrical optics – medium beam. STW / STA / STA1: Asymmetrical optics – wide beam. S05 / S07: Asymmetrical optics - extra-wide beam. Colour temperature: 4000K (others in option) CRI ≥ 70 Photobiological safety class: EXEMPT GROUP LED source efficiency: 185 lm/W @ 140mA, Tj=85°C, 4000K
Insulation class	II, I
Protection degree	IP66 IK08
Dimensions	See drawing below
Weight	See table below
Exposed surface	See table below
Luminaire	Luminaire with integrated LED modules, optics and power supply. Integrated mounting brackets. Integrated power supply cable. Screen removable by clip with the use of tools.
Heatsink	ED: External for 20M - 16M - 10M versions. ID: Internal for 8M - 4M – 2M versions.
Operating temp.	-40°C / +40°C
Storage temp	-40°C / +80°C
Main reference standards	EN 60598-1, EN 60598-2-3, EN 62471, EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3

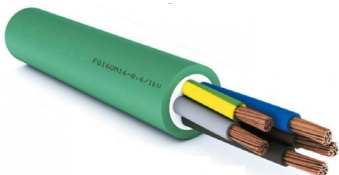


ELECTRICAL CHARACTERISTICS

Rated voltage	Mains connection branch wiring(BR): 220+240V 50/60Hz.
Power factor	>0,9 (at full load)
Mains connection	BR: Branch Wiring (Single Phase) PT (on request) : Pass-through three-phase wiring with external junction box.
Luminaire connection	Integrated main cable FG16-OM16 0.6/1kV L=1,5 mt (<i>other types on request</i>) F: 2x1,5mm² (CL.II) / 3x1,5mm² (CL.I) DALI: 4x1,5mm² (CL.II) / 5x1,5mm² (CL.I) Option: Plug : IEC 309 2P+T 16A IP67 (<i>other types on request</i>) Option: Cable FIRE-PROOF: FTG18-OM16 0.6/1kV 1.5 mm² L=1,5 mt Option: Separate Network/DALI cables : Network: 2/3x1,5mm² / DALI: 2x1,5mm²
Surge protection	Up to 12kV With SPD: CL.II: 10kV / 10kV CM/DM CL.I: 12kV / 10kV CM/DM Without SPD: CL.II: 10kV / 6kV CM/DM CL.I: 10kV / 6kV CM/DM
SPD (optional)	12kV-10kA, type 2+3, with LED signal and thermo fuse to disconnect load at the end of life.
Control system (options)	F: Fixed power not dimmable. DALI: Digital dimming interface DALI. FLC: Constant light flux. WL: Wireless single point communication system. <i>Other controls on request.</i>
Optical unit lifetime (Tq=25°C)	>100.000hr L90B10 >100.000hr L90 TM-21

MATERIALS	
Fixing	Stainless steel AISI 316L
Optical Unit	
Heatsink	Extruded anodized aluminium.
Fixing clip	Stainless steel
Optic	99.85% aluminium with a surface finish in 99.95% with vacuum-sealed deposition. Alluminum grade class A+ (DIN EN 16268)
Screen	Flat tempered glass, 5mm thickness high transparency.
Cable glands	Polyamide
Gasket	Polyurethane without junction point.

External Cable Details

ELECTRICAL CHARACTERISTICS		SAMPLE PICTURE
Type	FG16-OM16	
Rated voltage U0/U	0,6/1kV	
Operating temperature range	Up to 90°C	
Sheath Colour	Green	
Smoke Emission	LS0H (Low-Smoke Zero Halogen)	
CPR classification	C _{ca} -s1b, d1, a1	
Outer diameter	2P 12mm – 5P 14,4mm	
Bending Radius	6xD	

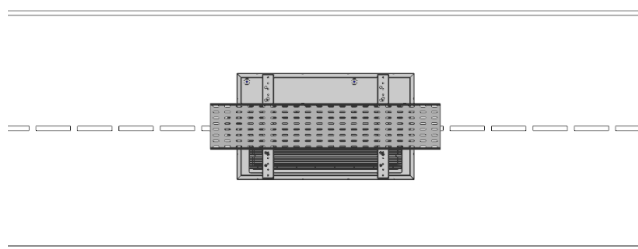
Fireproof External Cable Details (optional)

ELECTRICAL CHARACTERISTICS		SAMPLE PICTURE
Type	FTG18-OM16	
Rated voltage U0/U	0,6/1kV	
Operating temperature range	Up to 90°C	
Sheath Colour	Blue	
Smoke Emission	LS0H (Low-Smoke Zero Halogen)	
CPR classification	B2 _{ca} -s1a, d1, a1	
Outer diameter	2P 12mm – 5P 14,8mm	
Bending Radius	6xD	

Mains Plug Details (optional)

ELECTRICAL CHARACTERISTICS		SAMPLE PICTURE
Type	IEC309 2P+T 230V 16A	
Typology	Straight Plug	
Materials	External body: Technopolymers (Halogen Free) Pins: Nickel-plated brass	
Poles	2P+T	
Tightening capacity of the cable fastener clamp	7.5 - 13.8mm	
Tightening capacity of the terminals	1-4mm ²	
Operating temperature	-25°C / +55°C	
Rated current	16A	
Protection degree	IP67	
Colour	Blue	
Dimension	130mm x Ø72mm	

EXAMPLES OF INSTALLATION



Assembly

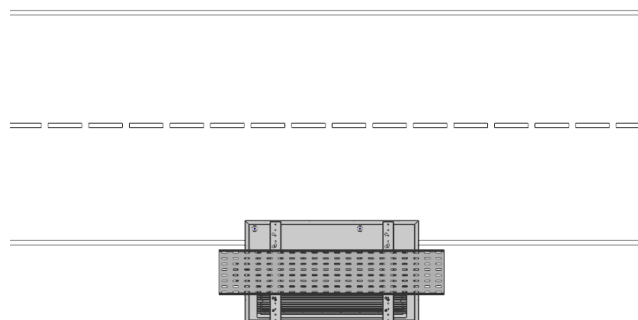
Central cable ladder/tray.

Typical Optics used

AS-xxx C0

TS-xxx C0

TS-xxx C90



Assembly

Side cable ladder/tray.

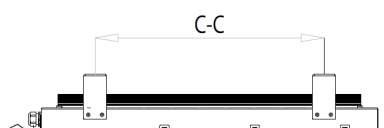
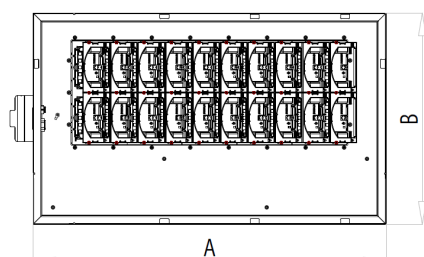
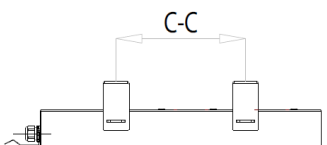
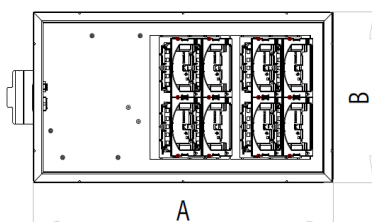
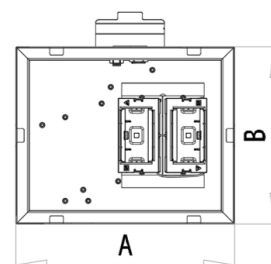
Typical Optics used

ST-xxx C90

S0x C90

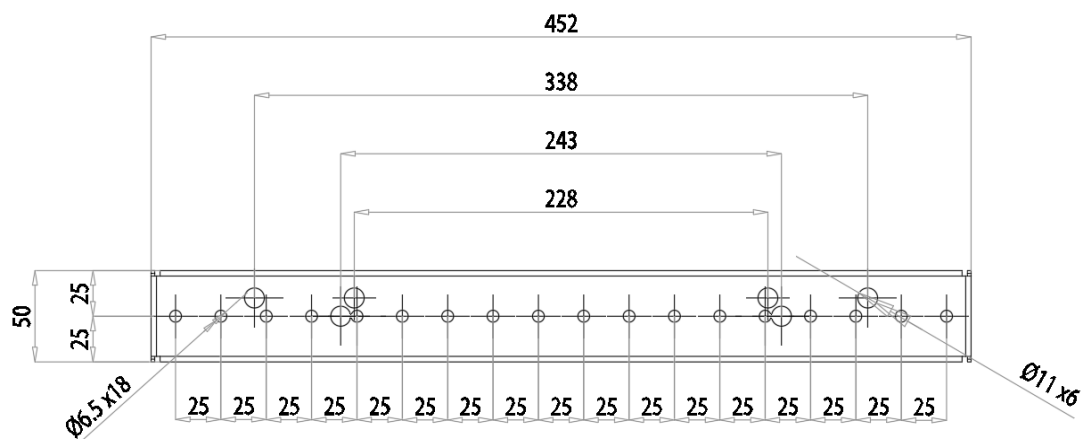
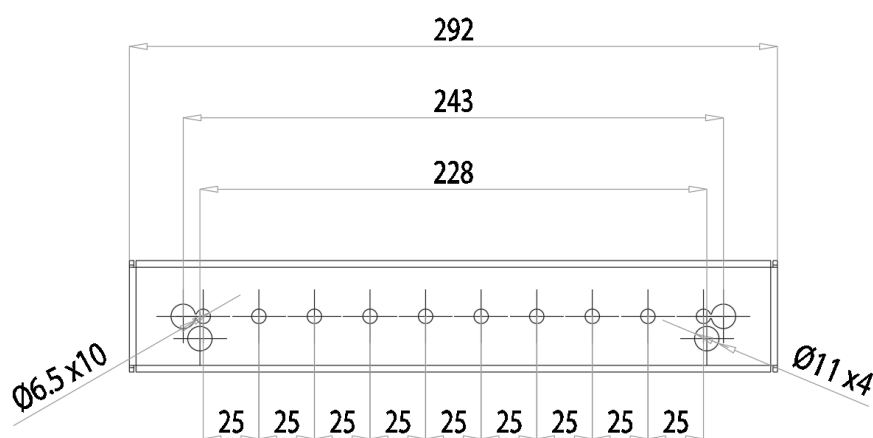
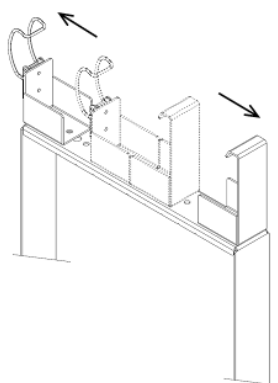
SV C90



DIMENSIONAL DRAWINGS LUMINAIRE**ED Version 20M-16M-10M****ID Version 8M
ID Version 4M (WL)****ID Version 4M-2M**

F-DALI-FLC Version	
Dimensions	20M: 772(A) x 462(B) x 130mm – C-C = 500mm 16M: 652(A) x 462(B) x 130mm – C-C = 500mm 10M: 577(A) x 462(B) x 130mm – C-C = 250mm 8M: 580(A) x 320(B) x 130mm – C-C = 250mm 4M: 332(A) x 320(B) x 130mm - (Single fixing bracket) 2M: 260(A) x 320(B) x 130mm - (Single fixing bracket)
Exposed Surface	20M: Side: 0.069m ² – Top: 0.361 m ² 16M: Side: 0.058m ² – Top: 0.306 m ² 10M: Side: 0.051m ² – Top: 0.271 m ² 8M: Side: 0.047m ² – Top: 0.190 m ² 4M: Side: 0.027m ² – Top: 0.110 m ² 2M: Side: 0.020m ² – Top: 0.087 m ²
Weight	20M: 20.5kg 16M: 16.9kg 10M: 14.8kg 8M: 9.7kg 4M: 5.6kg 2M: 3.7kg

WL Version	
Dimensions	20M: 772(A) x 462(B) x 130mm – C-C = 500mm 16M: 652(A) x 462(B) x 130mm – C-C = 500mm 10M: 577(A) x 462(B) x 130mm – C-C = 250mm 8M: 580(A) x 320(B) x 130mm – C-C = 250mm 4M: 424(A) x 320(B) x 130mm - C-C = 250mm 2M: 290(A) x 320(B) x 130mm - (Single fixing bracket)
Exposed Surface	20M: Side: 0.069m ² – Top: 0.361 m ² 16M: Side: 0.058m ² – Top: 0.306 m ² 10M: Side: 0.051m ² – Top: 0.271 m ² 8M: Side: 0.047m ² – Top: 0.190 m ² 4M: Side: 0.035m ² – Top: 0.140 m ² 2M: Side: 0.022m ² – Top: 0.097 m ²
Weight	20M: 20.5kg 16M: 16.9kg 10M: 14.8kg 8M: 9.7kg 4M: 7.1kg 2M: 4.3kg

FIXING BRACKET DETAIL**Version 20-16-10M****Version 8-4-2M****Cable Ladder Adjustable Fixing Flange
(Optional)**

Adjustable fixing flange for cable channel
100x75mm up to 300x75mm.

Tilt angle on request.

The bracket is supplied unmounted in the unit.

FIXING FLANGES COMPATIBILITY	
Model	Max Dimensions
T-LED4 20M-16M-10M	250x75mm (Other sizes on request)
T-LED4 8M-4M-2M	300x75mm (Other sizes on request)