

# EVFG

Lighting fixtures for fluorescent tube lamps and LED strip lamps



**The Type EVFG linear luminaire with fluorescent lamp or LED tube is an explosion protected item of operating equipment with lamp sockets for fluorescent lamps Type T8 or LED tubes Ø26 with G13 base. It is used to illuminate operating and storage facilities in potentially explosive areas, and may be deployed in Zones 1, 2 as well as 21 and 22.**

The luminaire may be designed with type of protection “Ex d” or “Ex de” (increased safety with separate connection space) in a 1-lamp or 2-lamp version. For the electrical connection, two threaded holes are provided to house the cable glands or blanking plugs, approved for the explosion protected area (“Ex d” – ¾” NPT / “Ex de” – M25x1.5), whereby the second hole for possible through-wiring is sealed with a blanking plug in the factory. Diverse mounting accessories make it possible to install the luminaire with wall or ceiling mounting, pole mounting or pendant mounting. In addition to normal lighting, there is also the option of use as an emergency light fitting, providing emergency lighting for up to 2 or 3 hours.

**Reference standards**

Directive 2014/34/EU	
Execution	Ⓜ II 2G Ex db eb IIC T6 Gb Ⓜ II 2G Ex db op is IIC T6 Gb (for PCB LED type only) Ⓜ II 2G Ex db eb op is IIC T6 Gb (for PCB LED type only) Ⓜ II 2D Ex tb IIIC T85 °C Db Ⓜ II 2D Ex op is tb IIIC T85 °C Db (for PCB LED type only)
Rules of compliance	EN/IEC 60079-0; EN/IEC 60079-1; EN/IEC 60079-7; EN/IEC 60079-31; EN/IEC 60079-28
EU Type-Examination Certificate	INERIS 12 ATEX 0023X
Protection degree	IP66
Ambient temperature	-20 °C ÷ +60 °C
Other available certificates	IECEx: IECEx INE 13.0055X INMETRO: CEPEL 13.2291X RUSSIAN MARINE CERTIFICATE (RMRS): 19.02519.280 ECASEx: 23-06-22481/Q23-06-048569/NB0002

**Mechanical characteristics**

Body	marine grade copper free aluminium
Tubes	high-temperature resistant borosylicate glass tube
Painting	external epoxy powders grey RAL9006 colour
Screws	external stainless steel
Gaskets	silicon rubber O-Ring
Reflectors	white stove enamelled sheet steel
Cable entry	3/4" NPT size threaded (Ex-d) ISO-M25 size threaded (Ex-de)

**Installation**

hazardous areas - Zone 1 / 2 (Gases) - Zone 21 / 22 (Dusts)

**Classification**

Group II - Category 2G 2D

**Electrical characteristics for fluorescent lamps**

Power Supply	dual channel electronic ballast: • 110 ÷ 240 Vac - 50/60 Hz (cos ρ ≥ 0,98) • 110 ÷ 240 Vdc
Lampholders	Bi-Pin G13 Cap
Internal Wiring	105° C resistant silicon rubber insulation cables
Terminals	suitable up to 2.5 mm <sup>2</sup> cables
Emergency Unit	emergency unit composed of inverter charger and Ni-Cd battery pack 4 Ah 4.8V. autonomy: 120/180 min.  LED power-on indicating lamp provided - (inverter) 220÷240 V 50/60 Hz

**Electrical characteristics for LED strips lamp**

Power Supply	100÷240 V 50/60 Hz (cos ρ ≥ 0,98) - AT version 220÷240 V 50/60 Hz (cos ρ ≥ 0,98) - TR version
Internal Wiring	105° C resistant silicon rubber insulation cables
Lamp source	SAMSUNG SPMWHX228FD5WAW0XX – CRI 80 CCT 5000K Lifetime: > 72000 hours L80F10 @ta25/40 > 71000 hours L80F10 @ta60 Efficiency: 191 lm/W
Terminals	suitable up to 2.5 mm <sup>2</sup> cables
Emergency Unit	emergency unit composed of inverter charger and Ni-Cd battery pack 4 Ah 6.0 V autonomy 180min.  LED power-on indicating lamp provided - (inverter) 220÷240 V 50/60 Hz

**On Request Accessories**

- Pole mounting kit complete with stainless steel hardware
- Ceiling mounting kit complete with stainless steel hardware
- Pendant mounting kit complete with stainless steel hardware
- Wall/Structure mounting kit complete with stainless steel hardware
- External painting colour on request
- Electronic ballast with voltage supply different than standard
- Protection guard



**Technical data**

Code	Lamp	Temperature class (gas)	Temperature class (dusts)	Lampholder	Emergency unit	Autonomy
Fluorescent lighting fixtures for single and twin lamps - power supply (110 ÷ 240 Vac - 50/60 Hz) - (110 ÷ 240 Vdc)						
EVFG*18	1 x 8 W	T6	T 85 °C	G5	-	-
EVFG*28	2 x 8 W	T6	T 85 °C	G5	-	-
EVFG*118	1 x 18 W	T6	T 85 °C	G13	-	-
EVFG*218	2 x 18 W	T6	T 85 °C	G13	-	-
EVFG*136	1 x 36 W	T6	T 85 °C	G13	-	-
EVFG*236	2 x 36 W	T6	T 85 °C	G13	-	-
EVFG*158	1 x 58 W	T6	T 85 °C	G13	-	-
EVFG*258	2 x 58 W	T6	T 85 °C	G13	-	-

\*d: for Exd version (Ex. EVFGd118) - Without "d" for Exde version (Ex. EVFG118)

Code	Lamp	Temperature class (gas)	Temperature class (dusts)	Lampholder	Emergency unit	Autonomy
Emergency fluorescent lighting fixtures for single and twin lamps - power supply (inverter) 220 ÷ 240 V 50/60 Hz						
EVFG*E18	1 x 8 W	T6	T 85 °C	G5	4.8 V - 4 Ah	120 min.
EVFG*E28	2 x 8 W	T6	T 85 °C	G5	4.8 V - 4 Ah	120 min.
EVFG*E118	1 x 18 W	T6	T 85 °C	G13	4.8 V - 4 Ah	120 min.
EVFG*E218	2 x 18 W	T6	T 85 °C	G13	4.8 V - 4 Ah	120 min.
EVFG*E136	1 x 36 W	T6	T 85 °C	G13	4.8 V - 4 Ah	120 min.
EVFG*E236	2 x 36 W	T6	T 85 °C	G13	4.8 V - 4 Ah	120 min.
EVFG*E158	1 x 58 W	T6	T 85 °C	G13	4.8 V - 4 Ah	120 min.
EVFG*E258	2 x 58 W	T6	T 85 °C	G13	4.8 V - 4 Ah	120 min.

\*d: for Exd version (Ex. EVFGdE236) - Without "d" for Exde version (Ex. EVFGE236) EMERGENCY OPERATING WITH ONE TUBE LAMP ONLY AS STANDARD

Code	Lamp	Temperature class (gas)	Temperature class (dusts)	Output (lm)	Total Power	Emergency unit	Dimensionally equivalent to
Lighting fixtures for led stripes lamp ("TR" version) - cct: 5000 K / CRI: 80 - power supply 220÷240 Vac							
EVFG*66LED_T	66 LED / 22 W	T6	T 85 °C	3180	27 W	-	18 W fluo. L = 745 mm
EVFG*132LED_T	132 LED / 44 W	T6	T 85 °C	6340	55 W	-	36 W fluo. L = 1345 mm
EVFGE*66LED_T	66 LED / 22 W	T6	T 85 °C	3180	30 W	6.0 V - 4 Ah autonomy 180 min.	18 W fluo. L = 745 mm
EVFGE*132LED_T	132 LED / 44 W	T6	T 85 °C	6340	58 W	6.0 V - 4 Ah autonomy 180 min.	36 W fluo. L = 1345 mm

\*d: for Exd version (Ex. EVFGd132LED\_T) - Without "d" for Exde version (Ex. EVFG132LED\_T)

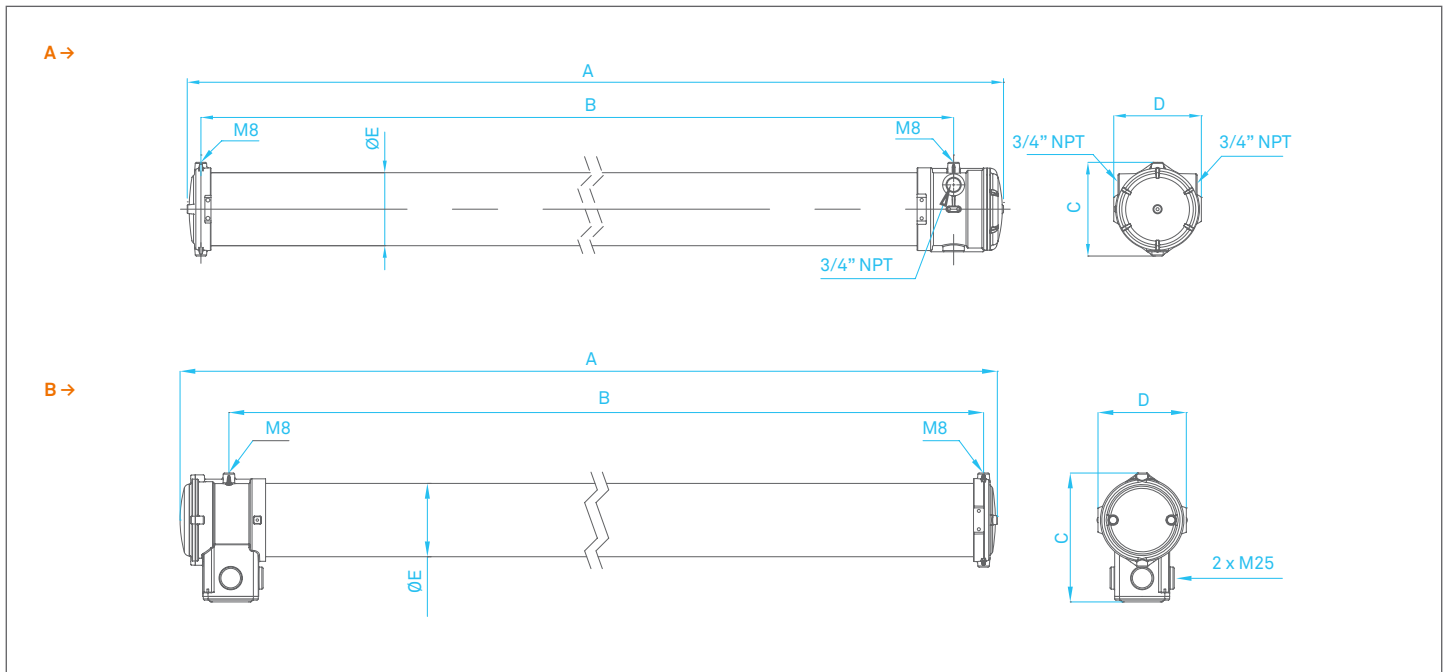
Note: LED stripes lamps included along with lighting fixtures EMERGENCY OPERATING WITH 66 LED UNITS ONLY AS STANDARD

Code	Lamp	Temperature class (gas)	Temperature class (dusts)	Output (lm)	Total Power	Emergency unit	Dimensionally equivalent to
Lighting fixtures for led stripes lamp ("AT" version) - cct : 4000 K / CRI : 70 - power supply 220÷240 Vac							
EVFG*40LED_A	40 LED / 28 W	T6	T 85 °C	3200	31W	-	18 W fluo. L = 745 mm
EVFG*80LED_A	80 LED / 55 W	T6	T 85 °C	6100	62 W	-	18 W fluo. L = 745 mm
EVFGE*40LED_A	40 LED / 28 W	T6	T 85 °C	3200	65 W	6.0 V - 4 Ah autonomy 180 min.	18 W fluo. L = 745 mm

\*d: for Exd version (Ex. EVFGd40LED\_A) - Without "d" for Exde version (Ex. EVFG40LED\_A)

Note: LED stripes lamps included along with lighting fixtures EMERGENCY OPERATING WITH 66 LED UNITS ONLY AS STANDARD

Reference details



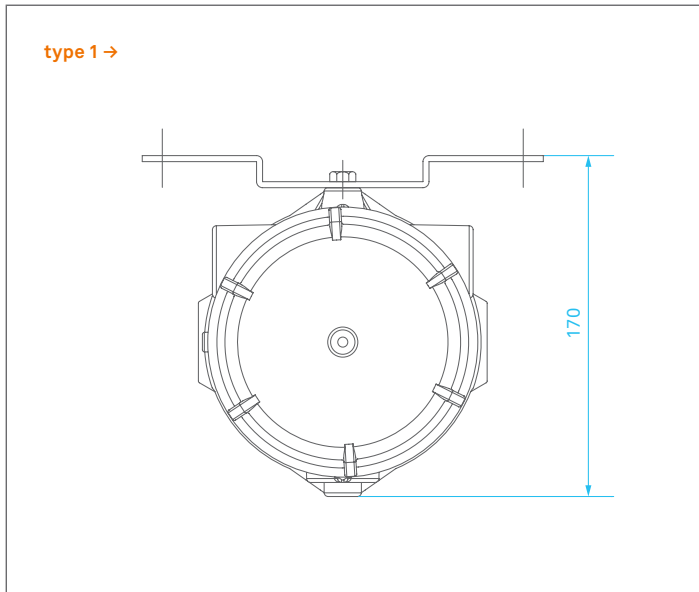
Technical features

Code	A [mm]	B [mm]	C [mm]	D [mm]	ØE [mm]	Weight [kg] **	Cable entry	Detail
EVFGd*8	495	390	154	145	120	3,50	2 x 3/4"	A
EVFGdE*8						4,50		
EVFGd*18 / **LED_A / 66LED_T	745	640	154	145	120	5,50	2 x 3/4"	A
EVFGdE*18 / 40LED_A / 66LED_T						5,50		
EVFGd*36 / 132LED_T	1345	1240	154	145	120	9,00	2 x 3/4"	A
EVFGdE*36 / 132LED_T						9,00		
EVFGd*58	1645	1540	154	145	120	10,00	2 x 3/4"	A
EVFGdE*58						11,40		
EVFG*8	495	390	218	145	120	4,00	2 x M25	B
EVFGE*8						5,00		
EVFG*18 / **LED_A / 66LED_T	745	640	218	145	120	6,50	2 x M25	B
EVFGE*18 / 40LED_A / 66LED_T						6,50		
EVFG*36 / 132LED_T	1345	1240	218	145	120	10,00	2 x M25	B
EVFGE*36 / 132LED_T						10,00		
EVFG*58	1645	1540	218	145	120	10,80	2 x M25	B
EVFGE*58						12,20		

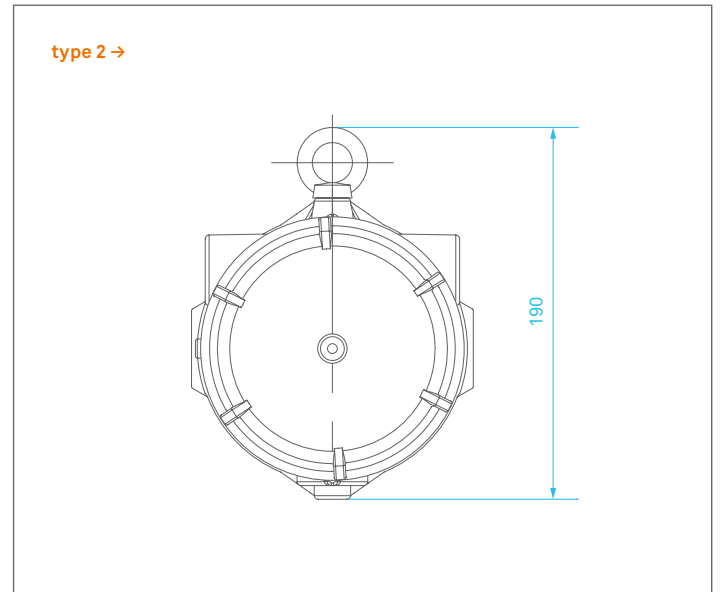
\* = 1 or 2: 1= single lamp - 2= twin lamp / \*\* = 40LED\_A or 48LED\_A or 80LED\_A

## EVFG Installation and mounting details

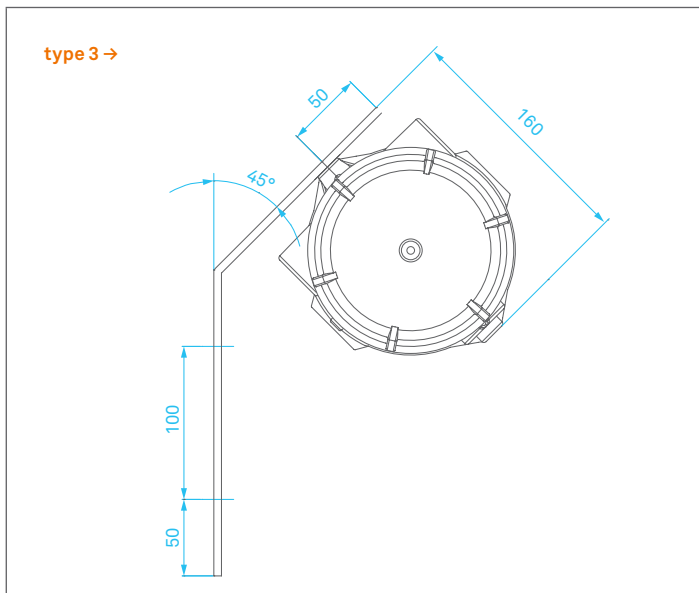
### Ceiling mounting



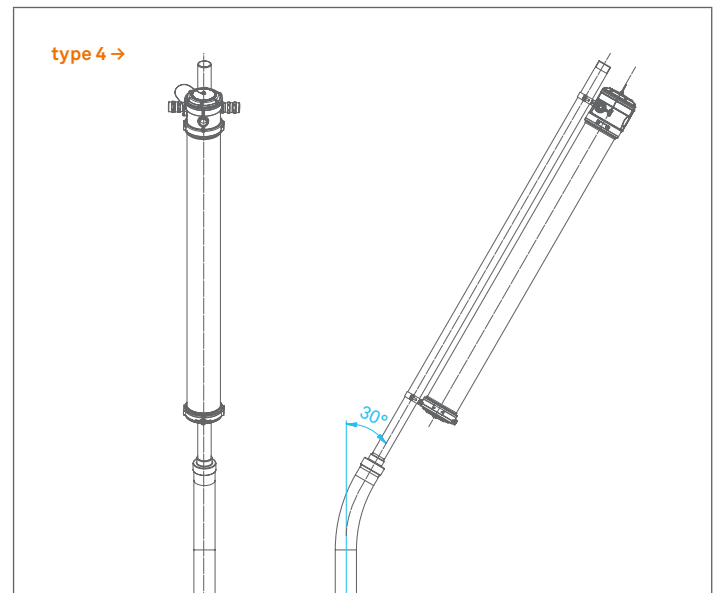
### Pendant mounting



### wall/structure mounting



### Pole mounting - assembling detail with pole (Typical)

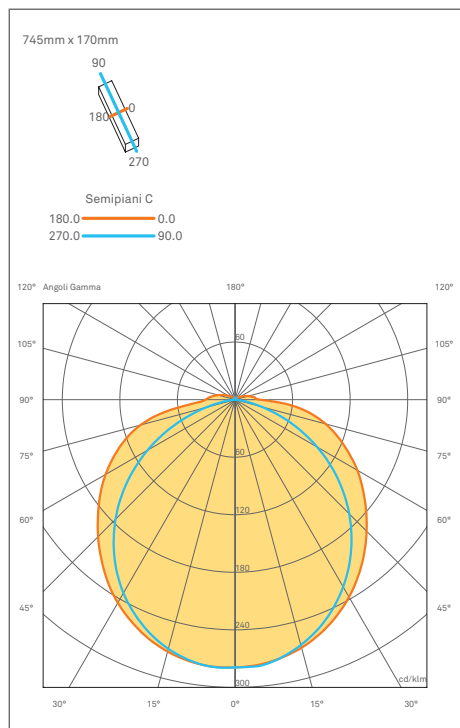


### On request accessories

Code	Description	Installation	Material
GUARDEVFG18	Protection guard for 18 W FL and LED lighting fixtures size 40, 48, 66, 80	–	H.D. Galvanized steel
GUARDEVFG36	Protection guard for 36 W FL and LED lighting fixtures size 132	–	H.D. Galvanized steel
GUARDEVFG58	Protection guard for 58 W FL	–	H.D. Galvanized steel
GUARDEVFG18IX	Protection guard for 18 W FL and LED lighting fixtures size 40, 48, 66, 80	–	Stainless steel
GUARDEVFG36IX	Protection guard for 36 W FL and LED lighting fixtures size 132	–	Stainless steel
GUARDEVFG58IX	Protection guard for 58 W FL	–	Stainless steel
KITFL#01000	Ceiling mounting kit C/W hardware	Type 1	Stainless steel
KITFL#02000	Pendant mounting kit C/W hardware	Type 2	Galvanized steel
KITFL#03000	Wall/structure mounting kit C/W hardware	Type 3	Galvanized steel
KITFL#48000	Pole mounting kit (size 1 1/2" dia.) C/W hardware	Type 4	Galvanized steel
KITFL#50000	Pole mounting kit (size 2" dia.) C/W hardware	Type 4	Galvanized steel

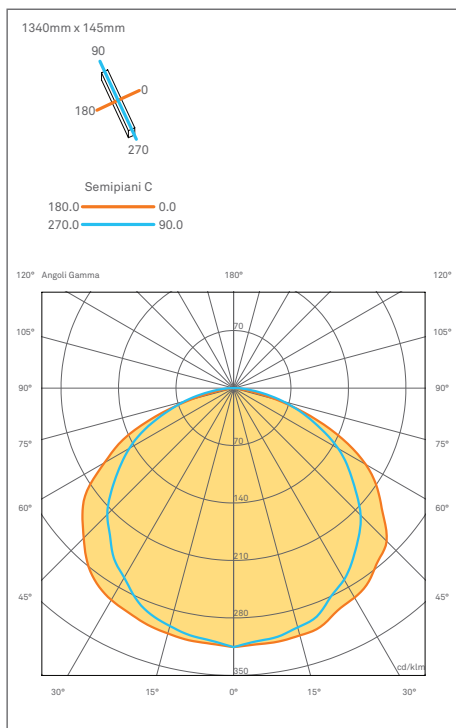
## EVFG Polar diagrams – photometric data

### EVFG18



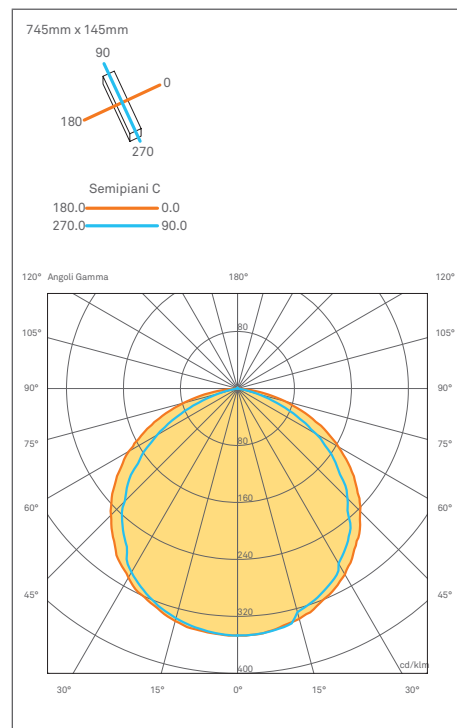
Luminaire Flux	786.20 lm
Luminaire Power	18.00 W
Efficacy	43.68 lm/W
Lamps Flux	900.00 lm
Maximum value	279.51 cd/klm
Position	C=175.00 G=5.00

### EVFG132LED\_T



Luminaire Flux	6529.56 lm
Luminaire Power	55.00 W
Efficacy	118.72 lm/W
Lamps Flux	6523.46 lm
Maximum value	315.48 cd/klm
Position	C=0.00 G=0.00

### EVFG80LED\_A



Luminaire Flux	6064.49 lm
Luminaire Power	55.77 W
Efficacy	108.74 lm/W
Lamps Flux	6064.49 lm
Maximum value	347.17 cd/klm
Position	C=150.00 G=3.00

REMARK:

Due to the development of the national and international specifications and of the technology, the above technical characteristics showed on this bulletin can be considered as binding on our confirmation only.