

EXEN

- Double locking system operated by hexagonal-head tool
- Suitable for ambient temperatures from -40°C to $+55^{\circ}\text{C}$
- High mechanical strength
- Zone 2, Zone 22

Transparent polycarbonate cover

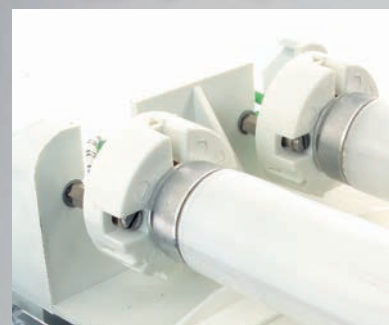


Reinforced polyester resin body

Internal emergency batteries



G13 bi-pin lamp holder



EXEN series Lighting fixtures "industrial series"

EXEN series fluorescent tube lighting fixtures can be installed in hazardous industrial plant units designated as Zone 2 and Zone 22. The materials used in their manufacture makes them ideal for use in all environments where a high degree of protection is needed against corrosion, dust, water and humidity.

Due to their robust mechanical properties, they are installed in both outdoor and indoor industrial environments such as refineries, petrochemical plants, rubber producing plants, paper mills, tunnels, galleries. In a more general sense, they are used in all those production processes where environmental conditions would deteriorate any other material and put the safety of the operating environment at risk. They are fitted with an electronic ballast system (RV series) for G13 bi-pin fluorescent tubes and can be supplied for either standard or emergency illumination. EXEN series lighting fixtures are easy to install and maintain and have a high degree of reliability thanks to the EOL Protected system that allows one fluorescent tube to stop working in safety. EXEN lighting fixtures have been designed to be connected in series thus simplifying installation and doing away with the need for junction boxes.

Application sectors:



Oil
refineries



Chemical
Farm produce
applications



Aircraft
storage
facilities
Hangars



Low
temperatures



Chemical
and
petrochemical
plants



Pharmaceu-
tical
industry



Distillation
industry



100%
Cortem
product

CERTIFICATION DATA

Classification:

Group II

Category 3GD

Installation: EN 60079.14

zone 2 (Gas)

zone 22 (Dust)

Marking:

CE Ex II 3GD Ex nA II T4/T5 - Ex tD A22 IP 66

CE 0722 Ex II 3D Ex tD A22 IP 66

Certification:

ATEX CESA 04 ATEX 042

IEC Ex CES 12.0010

TR CU DISPONIBILE

INMETRO DNV 17.0050X

All IEC Ex, TR CU and INMETRO certification data
can be downloaded at www.cortemgroup.com

Standards:

CENELEC EN 60079-0: 2006, EN 60079-15: 2005, EN 61241-0: 2006, EN 61241-1: 2004,
EN60598-1:2008+A11:2009, EN60598-2-22:1998+A1:2003+A2:2008, EN61547:2009
and EUROPEAN DIRECTIVE 2014/34/UE
IEC 60079-0: 2007, IEC 60079-15: 2010, IEC 60079-31: 2008
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

Degree of protection:

IP66

For EXEN-...series lighting fixtures

Class temperature	Max. surface temperature	Ambient temperature
T5	T65°C	-40°C +40°C
T5	T80°C	-40°C +50°C
T4	T85°C	-40°C +55°C

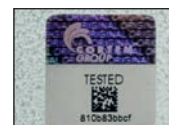
For EXEN-..EF.. or EXEN-..EE..series
lighting fixtures with emergency unit

Class temperature	Max. surface temperature	Ambient temperature
T5	T65°C	-40°C +40°C
T5	T80°C	-40°C +50°C

For EXEN-..EF..E o EXEN-..EE..E series lighting fixtures with
emergency and separate emergency battery pack

Class temperature	Max. surface temperature	Ambient temperature
T4	T85°C	-40°C +55°C

EXEN series Lighting fixtures "industrial series"



ORIGINAL PRODUCT

MECHANICAL FEATURES

Body:	Black shock and UV resistant fibreglass reinforced anti-static polyester resin
Diffuser:	Transparent polycarbonate, shock and UV resistant
Protected opening system:	Sliding system operated by a hexagonal socket (for safety reasons, the fixture cannot be opened without the tool)
Gasket:	Acid/hydrocarbon resistant expanded silicone
Internal reflector:	White painted aluminium
Inner frame:	Extruded aluminium
Bolts and screws:	Stainless steel
Entries:	4 x Ø25.5 entries (suitable for ISO M25 threads). Lighting fixture kit contains 3 x model PLG2ILXE7 plugs and 2 x model NAVP25IXE-X6DS cable glands for non-armoured cable
Mounting:	Nickel plated brass inserts with 2 x M8 holes

ELECTRICAL FEATURES

Lamp holder:	Bi-pin G13
Ballast:	Electronic single channel
Rated voltage:	220-240 Vac $\pm 10\%$
Rated frequency:	50/60 Hz
Connection:	Connected directly to terminal board L N, Pe section 4 mm ² terminal board with jumpers for input-output
Power factor:	0.97
Emergency unit:	Electronic inverter 110V/240V, 50/60Hz. Batteries Ni/Cd, 4 Ah or 7 Ah, 6 V
Wiring:	Silicone rubber cables with glass braid insulation for high temperatures

ACCESSORIES AVAILABLE / SPECIAL REQUESTS

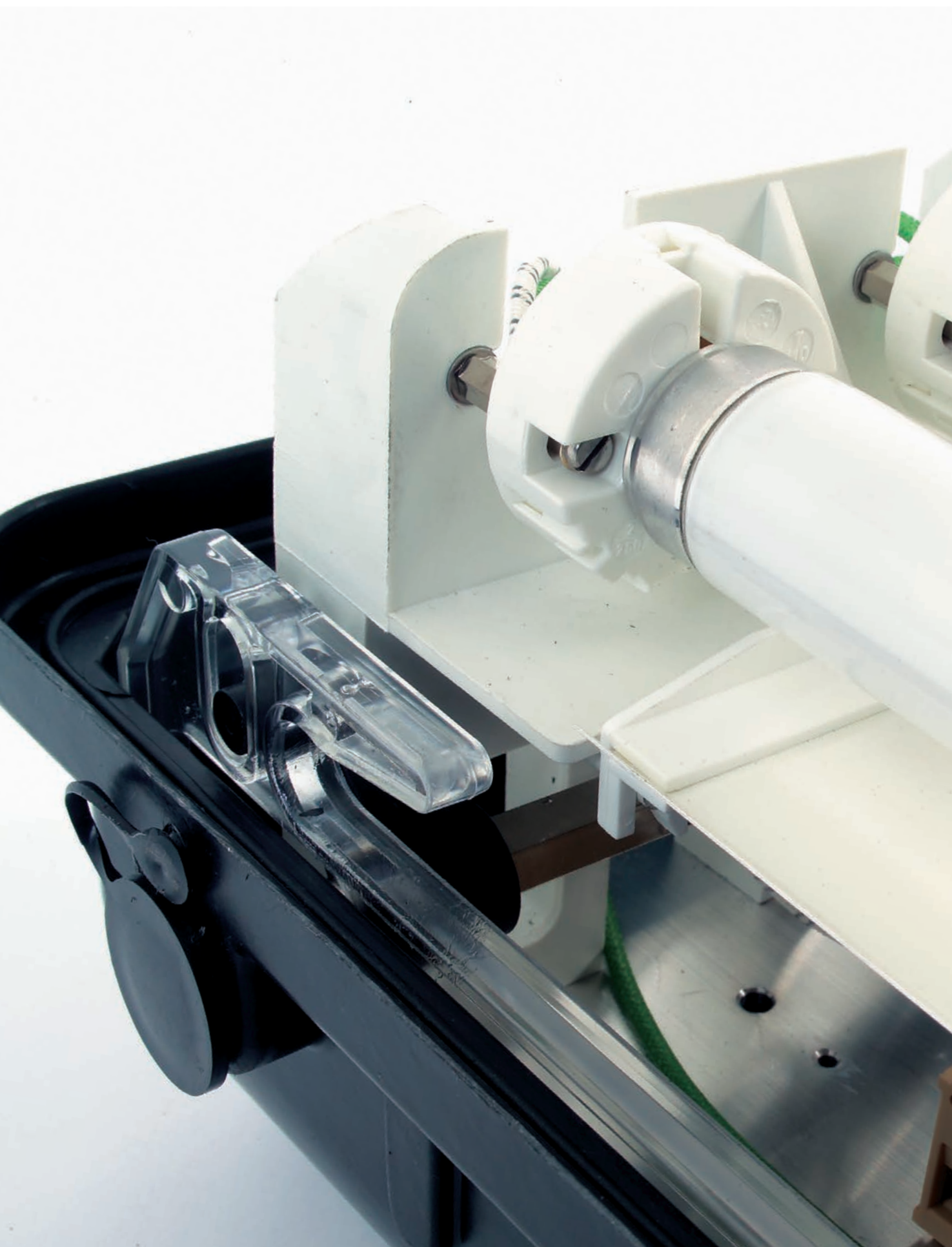
2 pin Ø26 fluorescent tubes model T8

Installation brackets

Grey polyester resin body (code EXEN-118EE4G)

Cable entry: 4 x Ø20.5 holes. Lighting fixture kit contains 3 model PLG1ILXE7 plugs and 2 model NAVP20IXE cable glands for non-armoured cable (code EXEN-118EE4/20)

Earthing continuity plates for metal cable glands



EXEN series selection chart

Single and double tube

Code	Dimensions mm				Type of ballast	N° of lamps	Power supply	Watt	Weight kg	
	A	A1	B	C						
EXEN-118	785	420	185	155	electronic single channel	1	230 V 50/60 Hz.	18	5,0	195x155x820
EXEN-136	1370	720	185	155	electronic single channel	1	230 V 50/60 Hz.	36	8,0	196x155x1400
EXEN-218	785	420	185	155	electronic single channel	2	230 V 50/60 Hz.	18	4,0	196x155x820
EXEN-236	1370	720	185	155	electronic single channel	2	230 V 50/60 Hz.	36	7,3	196x155x1400

Single and double tube with emergency unit

Code	Dimensions mm				Operating type	Lampade n°	Power supply	Discharge time minutes	Watt	Weight kg	
	A	A1	B	C							
EXEN-118EE4	785	420	185	155	emergency only	1	230 V 50/60 Hz	120'	18	4,8	196x155x820
EXEN-118EE7	785	420	185	155	emergency only	1	230 V 50/60 Hz	210'	18	5,8	196x155x820
EXEN-136EE4	1370	720	185	155	emergency only	1	230 V 50/60 Hz	100'	36	7,5	196x155x1400
EXEN-136EE7	1370	720	185	155	emergency only	1	230 V 50/60 Hz	180'	36	8,5	196x155x1400

EXEN-118EF4	785	420	185	155	normal + emergency	1	230 V 50/60 Hz	120'	18	7,0	196x155x820
EXEN-118EF7	785	420	185	155	normal + emergency	1	230 V 50/60 Hz	210'	18	8,0	196x155x820
EXEN-136EF4	1370	720	185	155	normal + emergency	1	230 V 50/60 Hz	100'	36	7,5	196x155x1400
EXEN-136EF7	1370	720	185	155	normal + emergency	1	230 V 50/60 Hz	180'	36	8,5	196x155x1400
EXEN-218EF4	785	420	185	155	normal + emergency	2	230 V 50/60 Hz	120'	18	8,3	196x155x820
EXEN-218EF7	785	420	185	155	normal + emergency	2	230 V 50/60 Hz	210'	18	8,5	196x155x820
EXEN-236EF4	1370	720	185	155	normal + emergency	2	230 V 50/60 Hz	100'	36	7,8	196x155x1400
EXEN-236EF7	1370	720	185	155	normal + emergency	2	230 V 50/60 Hz	180'	36	8,8	196x155x1400

DON'T FORGET TO ORDER THE ACCESSORIES

Example: Type of lighting fixture
EXEN-118EF4

Fluorescent tubes
LAMPL18W21

Installation fittings
G-244

+ other...see key

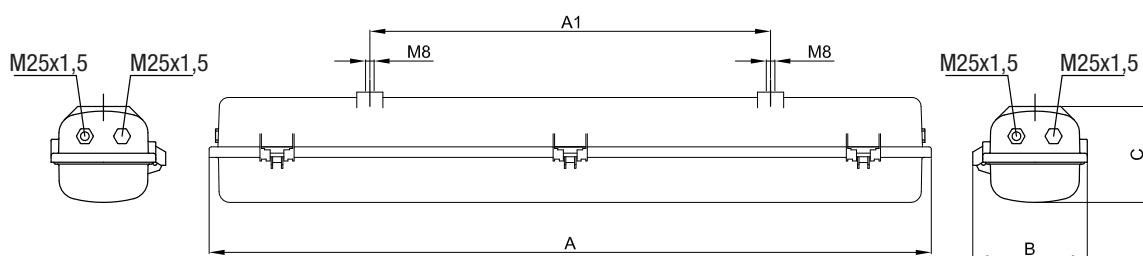


EXEN series selection chart

Single and double lamp units with separate emergency battery pack for temperatures of -40°C to + 55°C

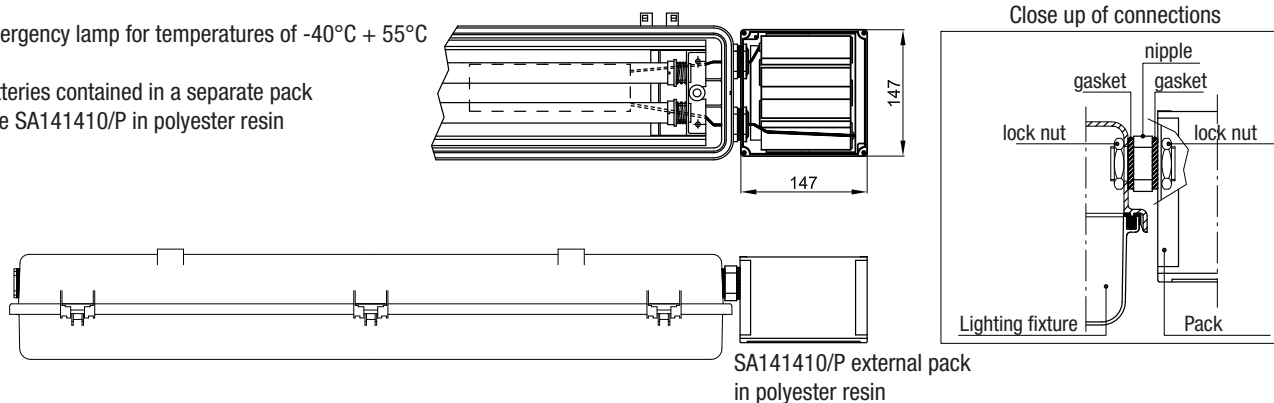
Code	Dimensions mm				Operating type	Lampade n°	Power supply	Discharge time minutes	Watt	Weight kg	 mm
	A	A1	B	C							
EXEN-118EE4E	785	420	185	155	emergency only	1	230 V 50/60 Hz.	120'	18	5,8	200x170x950
EXEN-118EE7E	785	420	185	155	emergency only	1	230 V 50/60 Hz.	210'	18	6,8	200x170x950
EXEN-136EE4E	1370	720	185	155	emergency only	1	230 V 50/60 Hz.	100'	36	8,5	200x170x1550
EXEN-136EE7E	1370	720	185	155	emergency only	1	230 V 50/60 Hz.	180'	36	9,5	200x170x1550
EXEN-118EF4E	785	420	185	155	normal + emergency	1	230 V 50/60 Hz.	120'	18	8,0	200x170x950
EXEN-118EF7E	785	420	185	155	normal + emergency	1	230 V 50/60 Hz.	210'	18	9,0	200x170x950
EXEN-136EF4E	1370	720	185	155	normal + emergency	1	230 V 50/60 Hz.	100'	36	8,5	200x170x1550
EXEN-136EF7E	1370	720	185	155	normal + emergency	1	230 V 50/60 Hz.	180'	36	9,5	200x170x1550
EXEN-218EF4E	785	420	185	155	normal + emergency	2	230 V 50/60 Hz.	120'	18	9,3	200x170x950
EXEN-218EF7E	785	420	185	155	normal + emergency	2	230 V 50/60 Hz.	210'	18	9,5	200x170x950
EXEN-236EF4E	1370	720	185	155	normal + emergency	2	230 V 50/60 Hz.	100'	36	8,8	200x170x1550
EXEN-236EF7E	1370	720	185	155	normal + emergency	2	230 V 50/60 Hz.	180'	36	9,8	200x170x1550

DIMENSIONAL DRAWINGS



Emergency lamp for temperatures of -40°C + 55°C

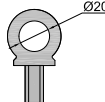
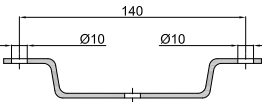
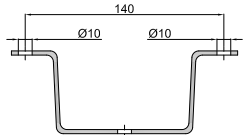
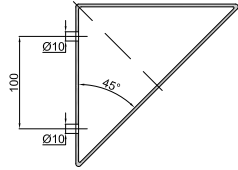
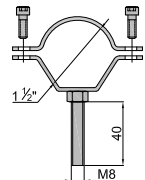
Batteries contained in a separate pack type SA141410/P in polyester resin



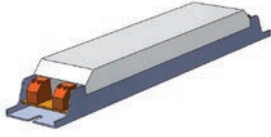
SA141410/P external pack in polyester resin

Dimensions in mm

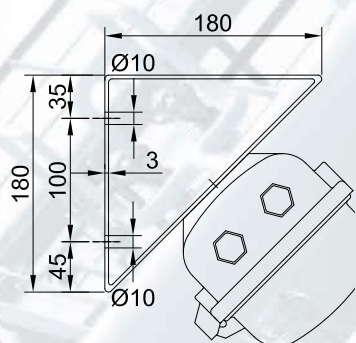
EXEN series Accessories and spare parts available on request

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	Tri-phosphor fluorescent tubes G13 fitting 3.000K	18 W	1350 lm (FD18W)	LAMPL18W21	 
		36 W	3350 lm (FD36W)	LAMPL36W21	
	Tige	Length: 250 mm	Material: stainless steel	BRF8MIN/250	 
	Eyebolt		Material: galvanised steel	GOF-8	 
	Type U bracket complete with screws		Material: bracket: galvanised steel screws: stainless steel	G-0609	 
	Type V bracket complete with screws		Material: bracket: galvanised steel screws: stainless steel	G-0610	 
	Type D bracket complete with screws		Material: bracket: galvanised steel screws: stainless steel	G-0611	 
	Type P bracket		Material: galvanised steel	G-0480	 
	Earthing continuity plates for metal cable glands	Fori M20x1.5	Material: brass	B-479	
		Fori M25x1.5		B-479/1	
	Non-armoured cable gland complete with rubbers, seal and lock nut	ISO M25x1,5	Ex and II IP 66/67 (std. range cable 10÷18)	NAVP25IXE-X6DS	
	Plug with seal and lock nut	ISO M25x1,5	Ex and II IP 66/67	PLG2ILXE7	

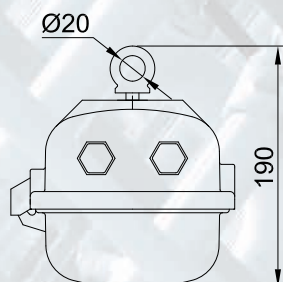
EXEN series Accessories and spare parts available on request

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	Transparent diffuser	18 W	Material: polycarbonate	B18-363	
		36 W		B36-363	
	Reflector	18 W	Material: white plastic coated aluminium	B18-0213	
		36 W		B36-0213	
	Hexagonal head tool			CLAFT10	
	Inverter			INVERTER	
	Battery pack		4 Ah 6V NiCd	G-0309B	
			7 Ah 6V NiCd	G-0309	
	Lamp holder		250 V - 4 A	B-0267	
	Electronic ballast	1 x 18 W	220-240 Vac $\pm 10\%$ 50/60 Hz	RV-118	
		2 x 18 W		RV-218	
		1 x 36 W		RV-136	
		2 x 36 W		RV-236	

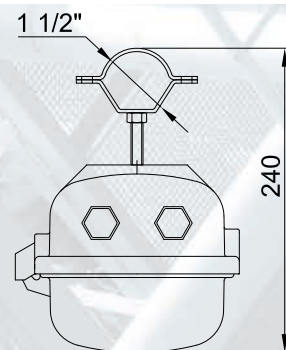
Installation and mounting methods EXEN series



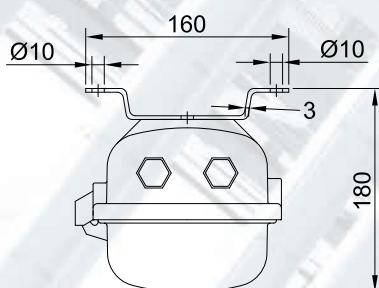
**45° angle mounting
TYPE "D"**



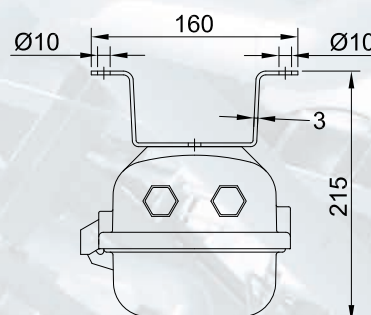
**Pendant mounting with
eyebolt TYPE "O"**



**Mounting with 1.1/2"
metal clamps TYPE "P"**

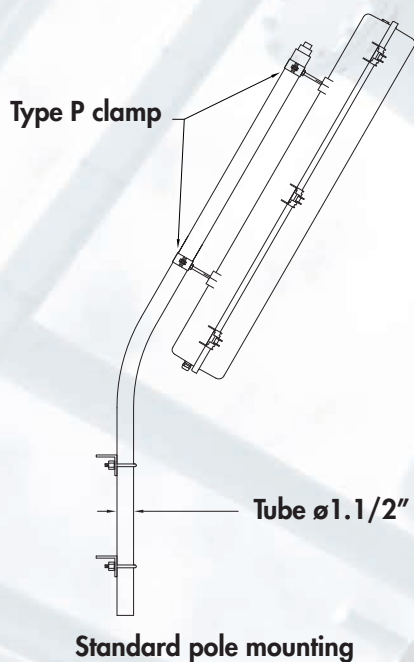


**Low ceiling mounting with
clamp TYPE "U"**



**High ceiling mounting with
clamp TYPE "V"**

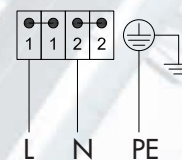
Dimensions in mm



Standard pole mounting

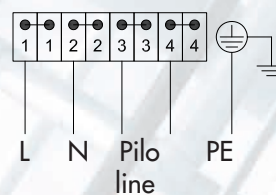
Wiring diagrams

Normal lighting fixture



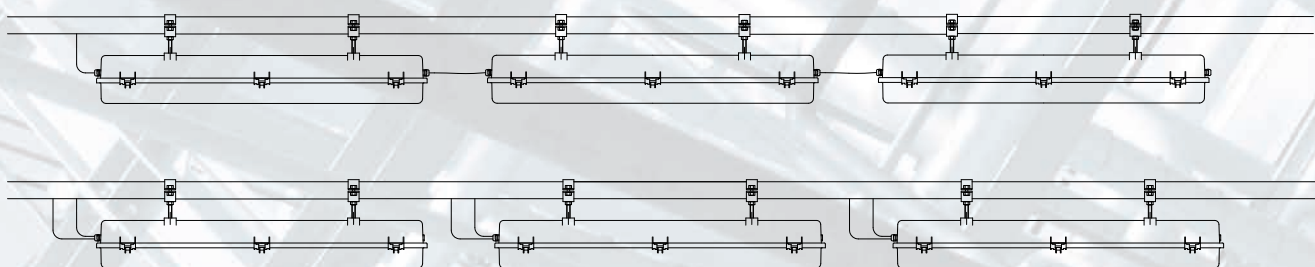
Alimentazione

Lighting fixture with emergency system

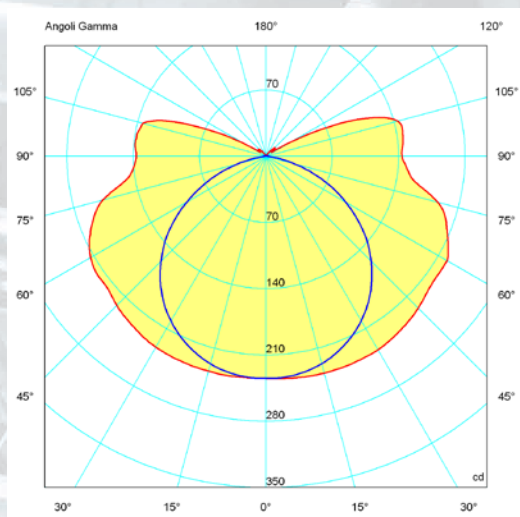


Alimentazione

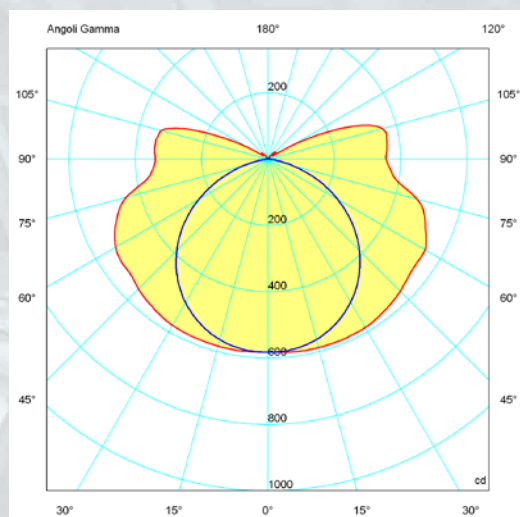
**Connections can be made on either side of the fixture body
for simple, fast installation**



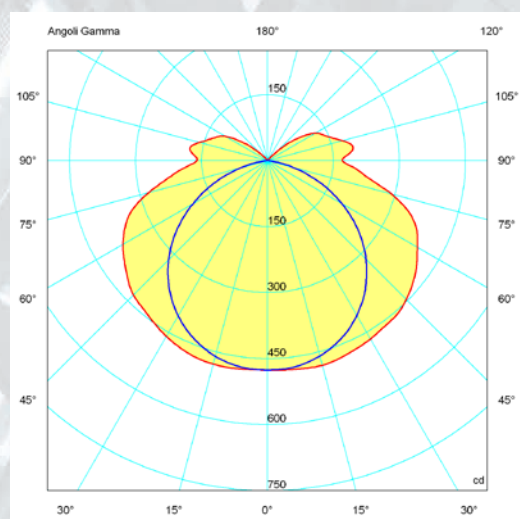
Photometric diagrams



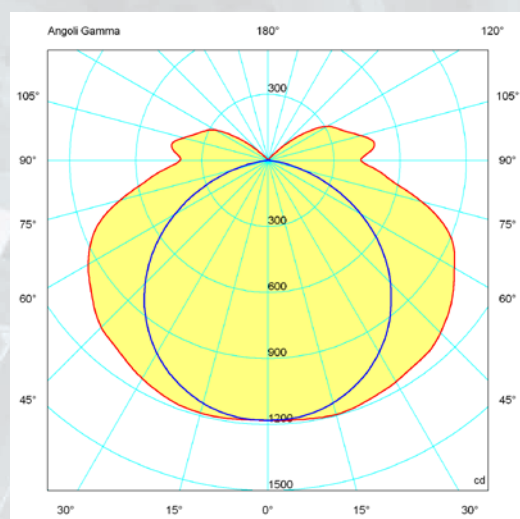
EXEN-118



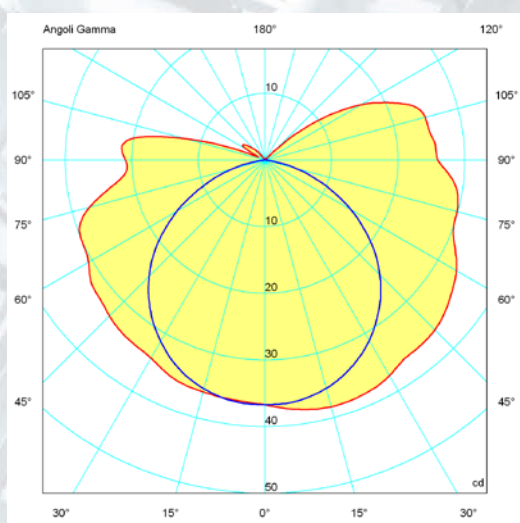
EXEN-136



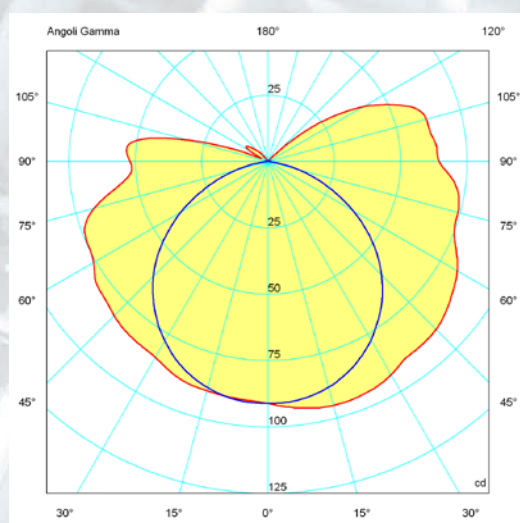
EXEN-218



EXEN-236



EXEN-218EF4



EXEN-236EF4

On Cortem Group web site you can download .LDT and .IES lighting data files for the design and simulation of lighting levels in 2D and 3D, rendering and ray tracing.

— = plane 90270
— = plane 0180