Lifex-P

- Complete with high efficiency LED strip lights
- Low consumption
- Compact size
- Easy to install
- Zone 1, 2, 21, 22
- 5 years warranty
- IK09

PATENTED

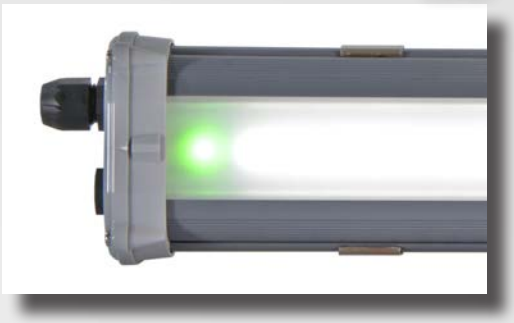
Screws, bolts and nuts: Stainless steel

Low installation costs

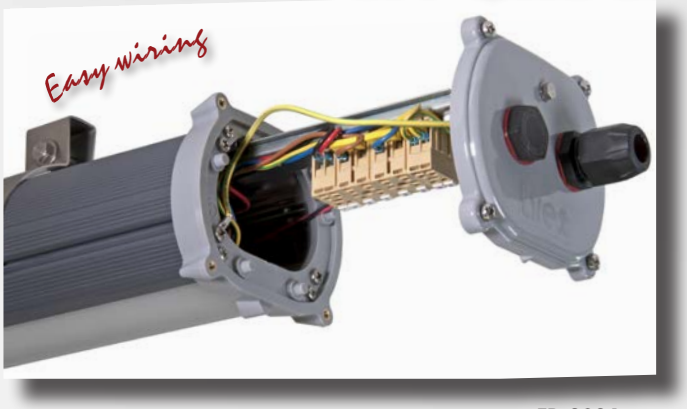
Fastening brackets

Polyamide cable gland

Battery charge level LED



Electrical part removable thanks to the frame inserted on special rails



LifEx-P series Linear LED lighting fixtures - plastic material

The LifEx-P series lighting fixtures are characterised by an impact (IK09) and UV-resistant polycarbonate and GRP body with a transparent part for light transmission.
Thanks to a carefully designed architecture which aims to manage the full product lifecycle optimally as part of a circular economy, and maximize the service life, LifEx-P is a small, lightweight, easy-to-install yet robust and highly corrosion-resistant lighting fixture.
An innovative bracket mechanism, with no fixed interaxis spacing limitations, makes them easy to install or retrofit. Available in different lengths and with a wide range of voltage and power features, the LifEx-P series is optimally designed and certified for the area of installation.
Versions with emergency operation can be accessorized with battery boxes to facilitate maintenance and/or battery replacement, or with special batteries for applications with ambient temperatures down to -60° C.
The use of high-power LED strips provides lumen output ranging from 1,500 lm to 12,500 lm with high efficiency and guaranteed durability.

Sectors of application:



Offshore facilities | Agribusiness facilities | Onshore facilities | Low temp. environments | Distillation industries | Stair handrails | Perimeter zone lighting | 100% produced by Cortem

CERTIFICATE DATA

Classification:	Group II	Category 2GD/3G	
Installation: EN 60079.14	zone 1, 2, 21, 22 *LifEx-PE*	zone 2, 21, 22 *LifEx-PN*	
Marking:	CE 0722 Ex II 2GD - Ex db eb mb IIC T.. Gb - Ex tb IIIC T..°C Db - IP66		*LifEx-PE*
	CE Ex II 3G - Ex nR IIC T.. Gc CE 0722 Ex II 2D - Ex tb IIIC T..°C Db - IP66		*LifEx-PN*
Certificate:	ATEX CML 21 ATEX 31405X		*LifEx-PE*
	ATEX CML 21 ATEX 31406X ATEX CML 21 ATEX 31405X		*LifEx-PN*
	IEC Ex IECEx CML 21.0168X		For all IEC Ex and UKEX certificate data, download the certificate from www.cortemgroup.com
	UKEX AVAILABLE		
	UL PENDING		
Standards:	CENELEC EN60079-0: 2018, EN60079-1: 2014, EN60079-7: 2015-18, EN60079-15: 2019, EN60079-18: 2015-17, EN60079-31: 2024, EN60598-2-22 and EUROPEAN DIRECTIVE 2014/34/EU IEC60079-0: 2017, IEC60079-1: 2014, IEC60079-15: 2017, IEC60079-18: 2017, IEC60079-31: 2022, IEC60079-7: 2017 European Directive 2004/108 Electromagnetic compatibility European Directive 2012/19/UE, 2002/96/CE, 2003/108/CE WEEE European Directive 2011/65/UE RoHS		
Temperature class:	For all permitted ambient temperature classes, please see the "Selection tables"		
Temp. Temperature:	-60°C for models without a battery -20°C or -60°C* for versions with a internal battery	For all permitted ambient temperature ranges, please see the "Selection tables"	
Degree of protection:	IP66		

-60°C

* Emergency lighting fixture with special battery for -60°C

LifEx-P series Linear LED lighting fixtures - plastic material



NO PHOTOBIOLOGICAL RISK (IEC / EN 62471 STANDARD)

ORIGINAL PRODUCT

MECHANICAL FEATURES

Body:	Gray shock and UV resistant fibreglass reinforced polyester resin and polycarbonate, impact resistant IK09. Gray colors RAL 7015 and 7045
Transparent part:	Transparent satin polycarbonate UV and impact resistant IK09
Gaskets:	Acid and hydrocarbon resistant silicone, IPX9
Internal frame:	Aluminium extrusion
Screws:	Stainless steel
Entry points:	Max. 4 entry points Ø25.5. Standard version with 2 holes Ø20.5 side (1) complete with n.1 NAVP20IXE and n.1 PLG1ILXE7 for LifEx-PE, n.1 NAV20IB and n.1 PLG1IB for LifEx-PN. For other versions the plugs and cable glands are available upon request
Assembly:	Fastening brackets for M8 holes

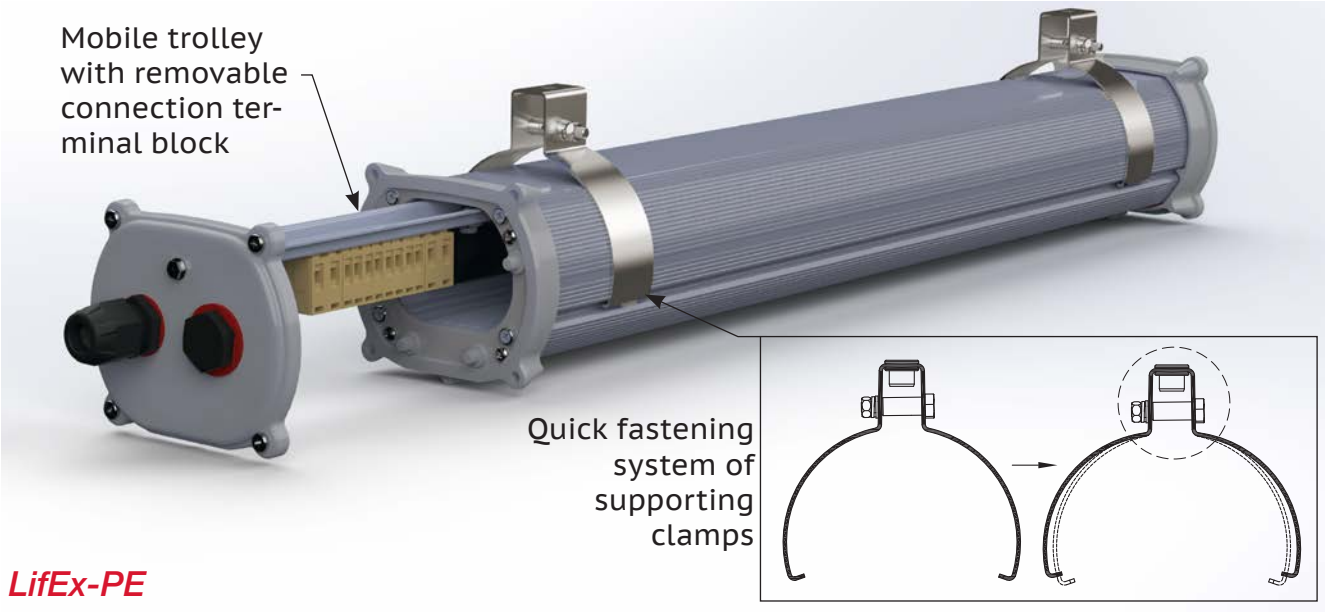
ELECTRICAL FEATURES

Power unit:	Electronic
Rated voltage:	110-277 V AC (for details, see the Selection table)
Rated frequency:	50/60 Hz
Connection:	Directly to the terminal board L, N, Pe cross sec. max. 4 mm^2 jumpered terminal board suitable for in-out, from a single side
Emergency unit:	Electronic inverter 110/277 V AC 50/60 Hz, 110/270 Vdc. Batteries Ni/Mh, 1.8 Ah or 3 Ah, 6V. Battery charge indicated by the green LED
Cabling:	Rigid cables for high temperatures

ACCESSORIES UPON REQUEST / SPECIAL REQUESTS

Coloured LED strip lights
Emergency lighting fixture with battery box to facilitate battery maintenance/replacement operations (example code: LifEx-PE-1230N-A**E**)
Emergency lighting fixture with battery heater (internal component) for ambient temperatures of -60°C, supplied voltage 230Vac. (example code: LifEx-PE-1230N**H**)
Wiring connection (example code: LifEx-PE-1230-AA**T**)
Dimming of lighting fixtures with DALI standard (Contact our Sales Office for availability)
Driver multirange
Vdc voltage range
Cable gland and plugs
Earthing continuity plates for metal cable glands (In the case of one cable glands, the earthing ring is required, code: A1311IB for cablegland M20, A2312IB for cablegland M25)

LifEx-P series lighting fixtures are available in two different configurations for different applications, LifEx-PE and LifEx-PN



LifEx-PE

The "PE" versions are designed for use in ATEX zones classified as "Zone 1-2" and "Zone 21-22," i.e. where the installed equipment must provide a high level of protection both in the presence of gas, vapour and mist mixtures (Zone 1) and in the presence of combustible dust and particles (Zone 21). LifEx-PE has Equipment Protection Level Gb, Db

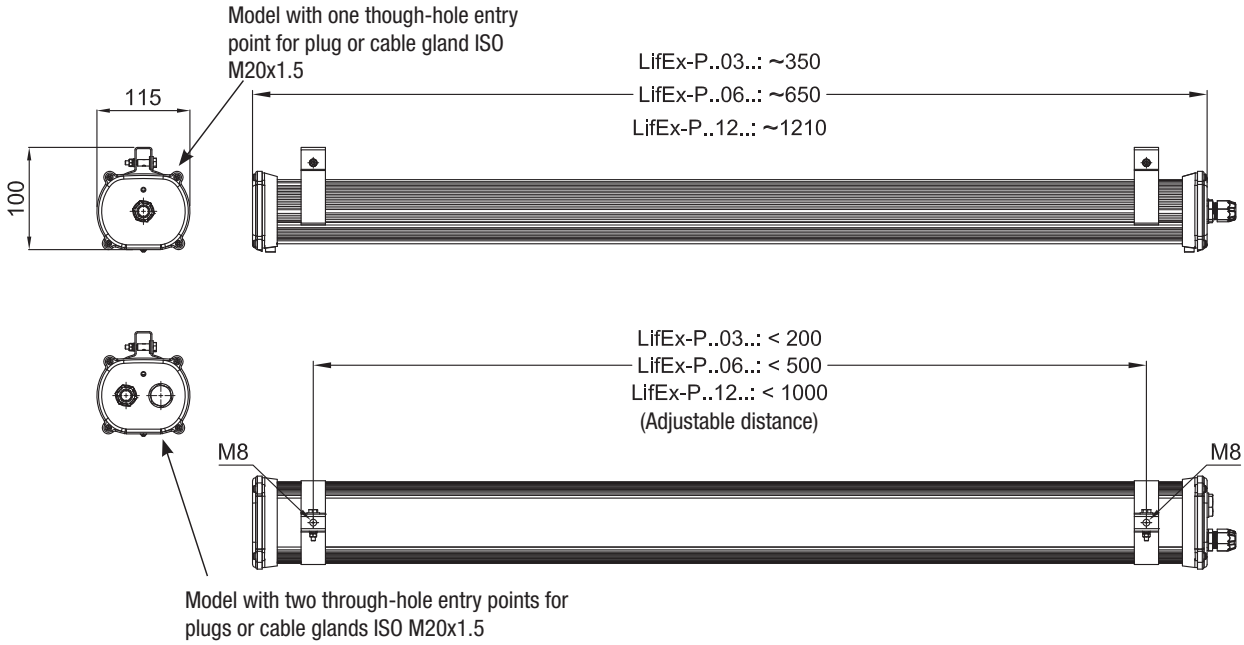
This safety feature is ensured by a combination of Ex db eb mb protection modes for gases and Ex tb for dust.

LifEx-PN

The "PN" versions are designed for use in ATEX zones classified as "Zone 2" and "Zone 21-22", i.e. where installed equipment must provide a normal level of protection in the presence of gas, vapour and mist mixtures (Zone 2), and a high level of protection against combustible dust and particles (Zone 21). LifEx-PN has Equipment Protection Level Gc, Db

This safety feature is ensured by Ex nR protection modes for gases and Ex tb for dust.

DIMENSIONAL DRAWING



Selection table.

Temperature classes and maximum surface temperatures.

Normal operation

Code	Real power Watt	Rated power Watt	Supply voltage Volt*	Temperature class / Maximum surface temperature +40°C	+50°C	+55°C	+60°C	Lumen lm	Light intensity cd	Overall efficiency Lm/W	Weight kg	mm
LifEx-PE-0315	13,4	15	220-240 Vac	T53°C/T5	T63°C/T5	T68°C/T4	T73°C/T4	1586	642	119	2,2	550x115x165
LifEx-PE-0330	26,5	30	220-240 Vac	T53°C/T5	T63°C/T5	T68°C/T4	T73°C/T4	2957	1196	111	2,2	550x115x165
LifEx-PE-0615	13,3	15	220-240 Vac	T57°C/T6	T67°C/T5	T72°C/T5	T77°C/T4	1637	659	123	2,5	860x115x165
LifEx-PE-0630	29,3	30	110-277 Vac	T57°C/T6	T67°C/T5	T72°C/T5	T77°C/T4	3220	1297	110	2,8	860x115x165
LifEx-PE-0645	42,9	45	110-277 Vac	T57°C/T6	T67°C/T5	-	-	5037	2022	118	2,8	860x115x165
LifEx-PE-0660	54,1	60	110-277 Vac	T57°C/T6	T67°C/T5	-	-	6548	2625	121	2,8	860x115x165
LifEx-PE-1230	27,8	30	110-277 Vac	T55°C/T6	T65°C/T5	T70°C/T5	T75°C/T5	3091	1247	111	4,3	1415x115x165
LifEx-PE-1260	54,8	60	110-277 Vac	T55°C/T6	T65°C/T5	T70°C/T5	T75°C/T5	6390	2584	117	4,3	1415x115x165
LifEx-PE-1290	78,4	90	120-277 Vac	T55°C/T6	T65°C/T5	-	-	9503	3818	121	4,3	1415x115x165
LifEx-PE-12120	101,4	120	220-277 Vac	T55°C/T6	T65°C/T5	-	-	12449	4994	123	4,3	1415x115x165

Normal operation + emergency

Code	Real power Watt	Rated power Watt	Supply voltage Volt*	Temperature class / Maximum surface temperature +40°C	+50°C	+60°C	Lumen lm ***	Discharge time in minutes	Weight kg	mm
LifEx-PE-0615N	13,3	15	220-240 Vac	T57°C/T6	T67°C/T5	T77°C/T4	797	90	3,4	860x115x165
LifEx-PE-0630N	29,3	30	220-240 Vac	T57°C/T6	T67°C/T5	T77°C/T4	793	90	3,4	860x115x165
LifEx-PE-1230N**	27,8	30	110-277 Vac	T55°C/T6	T65°C/T5	T75°C/T5	667	180	5,2	1415x115x165
LifEx-PE-1260N**	54,8	60	110-277 Vac	T55°C/T6	T65°C/T5	T75°C/T5	659	180	5,2	1415x115x165

Emergency operation only

Code	Supply voltage Volt	Temperature class / Maximum surface temperature +40°C	+50°C	+60°C	Lumen lm	Discharge time in minutes	Weight kg	mm
LifEx-PE-0615E**	110-277 Vac 100-300 Vdc	T57°C/T6	T67°C/T5	T77°C/T4	1027	90	3,0	860x115x165
LifEx-PE-1230E**	110-277 Vac 100-300 Vdc	T55°C/T6	T65°C/T5	T75°C/T5	1013	90	4,4	1415x115x165

* For other voltages see p. A.66

** Models with emergency feature available -60°C

*** Lumen in emergency operation.
The lumens in normal operation are the same as the versions without "N".

ORDER CODE LOGIC

LifEx-PE- [ ][ ][ ] Options [ ](1) [ ](2)

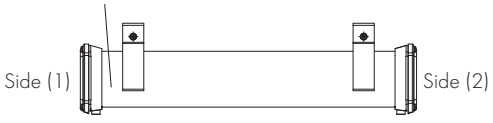
LifEx-PE Fixed code
Zone 1, 2, 21, 22

Lighting fixture length
03 300 mm for 15W, 30W
06 600 mm for 15W, 30W, 45W, 60W
12 1200 mm for 30W, 60W, 90W, 120W

Lighting fixture power
15 15W **60** 60W
30 30W **90** 90W
45 45W **120** 120W

Operation
n.a. Normal
N Normal + emergency
E Emergency only
NH Normal + emergency for -60°C. Supplied voltage 230Vac.
EH Emergency only for -60°C. Supplied voltage 230Vac.

Position of internal connection terminals



Quantity and type of cable holes side (1)
A N°1 hole Ø20,5
B N°2 holes Ø20,5
C N°1 hole Ø25,5
D N°2 holes Ø25,5

Quantity and type of cable holes side (2)
A N°1 hole Ø20,5
B N°2 holes Ø20,5
C N°1 hole Ø25,5
D N°2 holes Ø25,5
X No holes
E Battery box

n.a. Standard lighting fixture with 2 Ø20.5 holes side (1) (with 1xNAVP20IXE 1xPLG1LXE7) Lid with no holes side (2) Example code LifEx-PE-0615 **n.a.**

Selection table.

Temperature classes and maximum surface temperatures.

Normal operation

Code	Real power Watt	Rated power Watt	Supply voltage Volt*	Maximum surface temperature +40°C	+50°C	+55°C	+60°C	Lumen lm	Light intensity cd	Overall efficiency Lm/W	Weight kg	mm
LifEx-PN-0315	13,4	15	220-240 Vac	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	1742	686	130	2,2	550x115x165
LifEx-PN-0330	26,5	30	220-240 Vac	T54°C/T6	T64°C/T6	T69°C/T6	T74°C/T6	3203	1271	120	2,2	550x115x165
LifEx-PN-0615	13,3	15	220-240 Vac	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	1790	703	134	2,2	860x115x165
LifEx-PN-0630	29,3	30	110-277 Vac	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	3471	1366	118	2,2	860x115x165
LifEx-PN-0645	43,1	45	110-277 Vac	T47°C/T6	T57°C/T6	-	-	5472	2141	127	2,2	860x115x165
LifEx-PN-0660	54,2	60	110-277 Vac	T54°C/T6	T64°C/T6	-	-	7109	2780	131	2,2	860x115x165
LifEx-PN-1230	28,0	30	110-277 Vac	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	3424	1345	122	3,4	1415x115x165
LifEx-PN-1260	54,8	60	110-277 Vac	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	7083	2775	129	3,4	1415x115x165
LifEx-PN-1290	78,4	90	120-277 Vac	T47°C/T6	T57°C/T6	-	-	10390	4074	133	3,4	1415x115x165
LifEx-PN-12120	101,3	120	220-277 Vac	T68°C/T6	T78°C/T6	-	-	13649	5337	135	4,3	1415x115x165

Normal operation + emergency

Code	Real power Watt	Rated power Watt	Supply voltage Volt*	Maximum surface temperature +40°C	+50°C	+55°C	+60°C	Lumen lm ***	Discharge time in minutes	Weight kg	mm
LifEx-PN-0615N	13,3	15	220-240 Vac	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	927	90	2,8	860x115x165
LifEx-PN-0630N	29,3	30	220-240 Vac	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	945	90	2,8	860x115x165
LifEx-PN-1230N**	28,0	30	110-277 Vac	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	954	180	4,0	1415x115x165
LifEx-PN-1260N**	54,8	60	110-277 Vac	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	869	180	4,0	1415x115x165

Emergency operation only

Code	Supply voltage Volt		Maximum surface temperature +40°C	+50°C	+55°C	+60°C	Lumen lm	Discharge time in minutes	Weight kg	mm
LifEx-PN-0615E**	110-277 Vac	100-300 Vdc	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	1125	90	2,4	860x115x165
LifEx-PN-1230E**	110-277 Vac	100-300 Vdc	T47°C/T6	T57°C/T6	T62°C/T6	T67°C/T6	1109	90	3,6	1415x115x165

* For other voltages see p. A.67

** Models with emergency feature available -60°C

*** Lumen in emergency operation.
The lumens in normal operation are the same as the versions without "N".

ORDER CODE LOGIC

LifEx-PN- [ ][ ][ ] | Options [ ][ ]

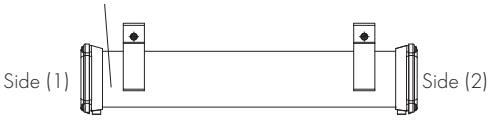
LifEx-PN Fixed code
Zone 2, 21, 22

Lighting fixture length
03 300 mm per 15W, 30W
06 600 mm for 15W, 30W, 45W, 60W,
12 1200 mm for 30W, 60W, 90W

Lighting fixture power
15 15W **60** 60W
30 30W **90** 90W
45 45W **120** 120W

Operation
n.a. Normal
N Normal + emergency
E Emergency only
NH Normal + emergency for -60°C. Supplied voltage 230Vac
EH Emergency only for -60°C. Supplied voltage 230Vac

Position of internal connection terminals



(1) Quantity and type of cable holes side (1)
A N°1 hole Ø20,5
B N°2 holes Ø20,5
C N°1 hole Ø25,5
D N°2 holes Ø25,5

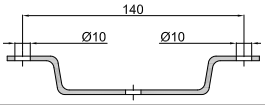
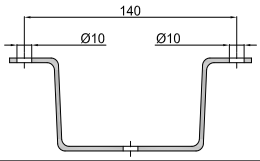
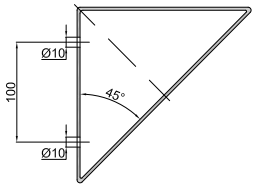
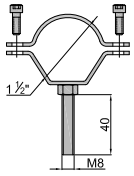
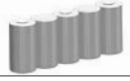
(2) Quantity and type of cable holes side (2)
A N°1 hole Ø20,5
B N°2 holes Ø20,5
C N°1 hole Ø25,5
D N°2 holes Ø25,5
X No holes
E Battery box

n.a. Standard lighting fixture with 2 Ø20.5 holes side (1) (with 1xNAV20IB 1xPLG1IB) Lid with no holes side (2) **n.a.**
Example code LifEx-PN-0615

Electrical features	LifEx-PE-03..	LifEx-PE-06..	LifEx-PE-12..
Supply voltage:	..15 220-240 Vac 170-280 Vdc	..15 220-240 Vac 170-280 Vdc	..30 110-277 Vac 176-276 Vdc
	..30 220-240 Vac 170-280 Vdc	..30 110-277 Vac 176-276 Vdc	..60 110-277 Vac 176-276 Vdc
	-	..45 110-277 Vac 176-276 Vdc	..90 120-277 Vac 176-276 Vdc
	-	..60 110-277 Vac 176-276 Vdc	..120 220-277 Vac 176-276 Vdc
	-	-	-
Rated frequency:	50-60 Hz ±5%	50-60 Hz ±5%	50-60 Hz ±5%
Lamp real power consumption:	..15 13,4 W	..15 13,3 W	..30 27,8 W
	..30 26,5 W	..30 29,3 W	..60 54,8 W
	-	..45 42,9 W	..90 78,4 W
	-	..60 54,1 W	..120 101,4 W
	-	-	-
Connection:	Cable entry directly to the terminal board L, N, PE. Max. 4sq^{mm} cross-section, suitable for in-out connections		
Power factor:	..15 0,97	..15 0,97	..30 0,95
	..30 0,99	..30 0,95	..60 0,97
	-	..45 0,98	..90 0,99
	-	..60 0,97	..120 0,99
	-	-	-
Rated current:	..15 60 mA	..15 60 mA	..30 127 mA
	..30 117 mA	..30 134 mA	..60 246 mA
	-	..45 190 mA	..90 344 mA
	-	..60 243 mA	..120 445 mA
	-	-	-
EMC (Electromagnetic Compatibility):	EN 55015, EN 61547, IEC 61000-3-2, IEC 61000-3-3		
THD (Total Harmonic Distortion):	<4% 230 Vac, 50 Hz		
Over-voltage protection: (values valid for lamps in normal operation)	..15 2-4 kV	..15 2-4 kV	..15 4 kV
	..30 2-4 kV	..30 4 kV	..30 4 kV
	-	..45 4 kV	-
	-	..60 4 kV	-
Driver performance levels:	Over-Voltage Protection, Over-Current Protection, Short-Circuit Protection		
Dimmer (on request):	0-10V PWM		
Photometric features			
Multichip LED:	Mid power		
Viewing angle:	120°		
Colour temperature	5000 K		
CRI:	>80		
Instant Restrike:	SI		
L90:	> 54000 ore		

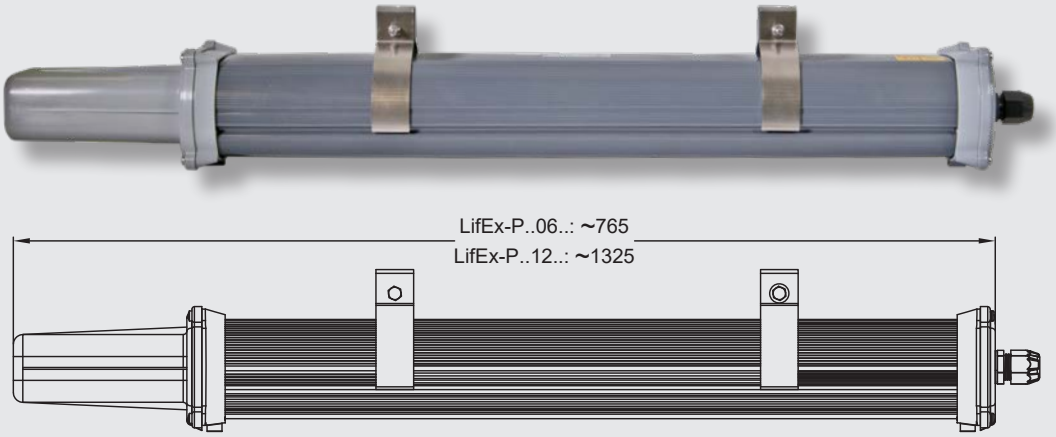
Electrical features	LifEx-PN-03..	LifEx-PN-06..	LifEx-PN-12..
Supply voltage:	..15 220-240 Vac 170-280 Vdc	..15 220-240 Vac 170-280 Vdc	..30 110-277 Vac 176-276 Vdc
	..30 220-240 Vac 170-280 Vdc	..30 110-277 Vac 176-276 Vdc	..60 110-277 Vac 176-276 Vdc
	-	..45 110-277 Vac 176-276 Vdc	..90 120-277 Vac 176-276 Vdc
	-	..60 110-277 Vac 176-276 Vdc	..120 220-277 Vac 176-276 Vdc
	-	-	-
Rated frequency:	50-60 Hz ±5%	50-60 Hz ±5%	50-60 Hz ±5%
Lamp real power consumption:	..15 13,4 W	..15 13,3 W	..30 27,8 W
	..30 26,5 W	..30 29,3 W	..60 54,8 W
	-	..45 42,9 W	..90 78,4 W
	-	..60 54,1 W	..120 101,4 W
	-	-	-
Connection:	Cable entry directly to the terminal board L, N, PE. Max. 4sq^{mm} cross-section, suitable for in-out connections		
Power factor:	..15 0,97	..15 0,97	..30 0,95
	..30 0,99	..30 0,95	..60 0,97
	-	..45 0,98	..90 0,99
	-	..60 0,97	..120 0,99
	-	-	-
Rated current:	..15 60 mA	..15 60 mA	..30 127 mA
	..30 117 mA	..30 134 mA	..60 246 mA
	-	..45 190 mA	..90 344 mA
	-	..60 243 mA	..120 445 mA
	-	-	-
EMC (Electromagnetic Compatibility):	EN 55015, EN 61547, IEC 61000-3-2, IEC 61000-3-3		
THD (Total Harmonic Distortion):	<4% 230 Vac, 50 Hz		
Over-voltage protection: (values valid for lamps in normal operation)	..15 2-4 kV	..15 2-4 kV	..15 4 kV
	..30 2-4 kV	..30 4 kV	..30 4 kV
	-	..45 4 kV	-
	-	..60 4 kV	-
Driver performance levels:	Over-Voltage Protection, Over-Current Protection, Short-Circuit Protection		
Dimmer (on request):	0-10V PWM		
Photometric features			
Multichip LED:	Mid power		
Viewing angle:	120°		
Colour temperature	5000 K		
CRI:	>80		
Instant Restrike:	SI		
L90:	> 54000 ore		

LifEx-P series Linear LED lighting fixtures - plastic material

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	Rod	Length: 250 mm	Material: stainless steel	BRF8MIN/250	
	O-type eye bolt		Material: galvanized steel	G0F-8	
	U-bracket complete with screws		Material bracket: galvanized steel screws: stainless steel	G-0609	
	V-bracket complete with screws		Material bracket: galvanized steel screws: stainless steel	G-0610	
	D-bracket complete with screws		Material bracket: galvanized steel screws: stainless steel	G-0611	
	Bracket type P		Material: galvanized steel	G-0480	
	Polyamide cable glands	LifEx-PE	For cable gland models and codes, please see www.cortemgroup.com	NAVP20IXE	
	Nickel plated brass cable gland	LifEx-PN		NAV20IB	
	Earthing continuity plates for metal cable glands	For cableglands M20x1.5	Material: brass	B-564	
		For cableglands M25x1.5		B-564/1	
	Electronic power unit	LifEx-PE-0315 LifEx-PE-0615 LifEx-PE-0615N	LED driver Ex mb	EBM-30L/350	
		LifEx-PE-0330 LifEx-PE-0630N		EBM-30L/700	
		LifEx-PE-0630 LifEx-PE-0645 LifEx-PE-0660 LifEx-PE-12...		EBM-100L/350	
	Electronic power unit	LifEx-PN-0315 LifEx-PN-0330/ 0630N LifEx-PN-0615/0615N	LED driver	LEDDLIFEX10	
		From LifEx-PN-0630 to LifEx-PN-12120		LEDDLIFEX100	
	Fibreglass inverter	LifEx-PE-...N LifEx-PE-...E	Inverter Ex mb	EIM-30L	
	Inverter	LifEx-PN-...N LifEx-PN-...E	Inverter LED	INVERTER/LED/NM	
	Battery unit	LifEx-P..-..E LifEx-P..-06..N	NiMH, 1.8Ah	G-1096/B	
		LifEx-P..-12..N LifEx-P..-1590N	NiMH, 3Ah	G-1097/F	
	Battery box	Duration 180 minutes	3 Ah	G-0697/3AH	
		Duration 90 minutes	1.8 Ah	G-0697/1.8AH	
	Battery for -60°C	Duration 180 minutes	3 Ah	G-0698	

Emergency lighting fixture with battery box

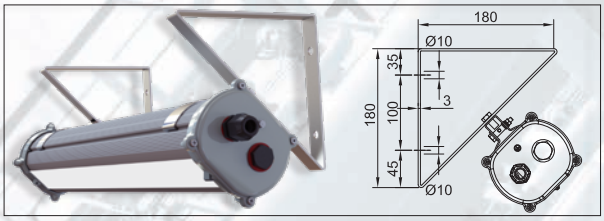
Version to facilitate battery maintenance/replacement operations.



Versions available with cable entry in SIDE 1 only

Possible codes:
LifEx-P..-AE
LifEx-P..-BE
LifEx-P..-CE
LifEx-P..-DE

Typical assemblies with installation accessories



45° corner mount TYPE "D"



Ceiling mount with 250 mm rod



Ceiling mount, tall model TYPE "U"



Mount with metal clamps 1 1/2" TYPE "P"

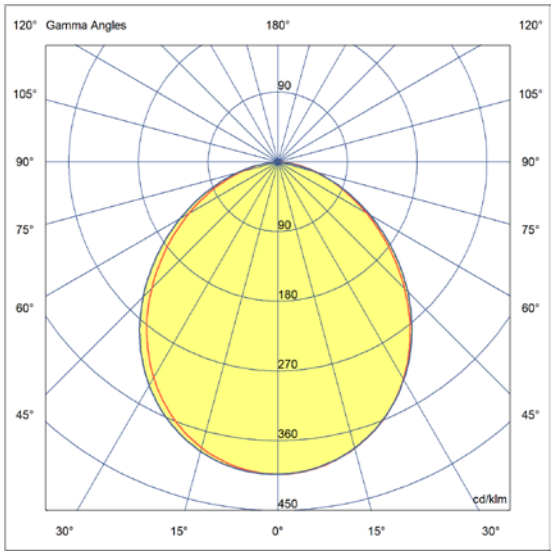


Ceiling mount, tall model TYPE "V"



Suspended mount with eye bolt TYPE "O"

LIFEX-PE-1230
Luminous flux 3091 lm



= level 90270
= level 0180

The lighting solution files for the design, planning and simulation of lighting levels in 2D-3D, rendering and ray-tracing are available from www.cortemgroup.com.