

LifeX-M

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



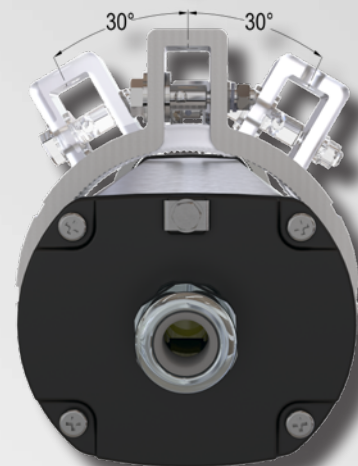
Patent Pending

Fastening brackets adjustable

Aluminium alloy extrusion



Fastening brackets with 2 holes M8, adjustable 0° to ±30°
"Cortem Group Technology"



Metal cable glands

LifEx-M series Linear LED lighting fixture in aluminum

LifEx-M lighting fixtures are the first LED native linear fixtures, featuring an innovative design by Cortem Group, created in response to customer requirements.

The product architecture has been carefully designed. The aim is to manage the full product lifecycle optimally as part of a circular economy, and maximise the product's useful life. The result is a compact, lightweight lighting fixture that is easy to install, while also being robust and long lasting.

They feature a high-quality anodised aluminium body and a glass diffuser which is resistant to impact and high temperatures. They have an innovative bracket mechanism, with no fixed interaxis spacing limitations, which makes them easy to install or retrofit and means the lighting fixture can be rotated to $-30^{\circ}/0^{\circ}/+30^{\circ}$. The LifEx range comes in different lengths with a wide array of voltage and power specifications. The range has been optimally designed and certified according to the installation zone and, in addition to passing all tests required by the regulations, it has passed additional mechanical and electrical tests such as vibration testing, IP66, soft start, surge testing and more.

The use of high-power LED strip lights provides a lumen output from 1,000 lm to 15,500 lm, making the range highly efficient and long lasting in terms of its electronics and light engineering.

Sectors of application:



Offshore facilities



Agribusiness facilities



Onshore facilities



Low temp. environments



Chemical and petrochemical facilities



Waste water treatment plants



Naval installations



100% produced by Cortem

CERTIFICATE DATA

Classification:	Group II	Category 2GD/3GD	
Installation: EN 60079.14	zone 1, 2, 21, 22 LifEx-ME	zone 2, 21, 22 LifEx-MN	
Marking:	CE 0722 Ex II 2GD - Ex db eb mb IIC T.. Gb - Ex tb IIIC T.. °C Db IP66		LifEx-ME
	CE Ex II 3GD - Ex ec IIC T.. Gc IP66		LifEx-MN
Certificate:	ATEX	CML 20 ATEX 3018X	LifEx-ME
	ATEX	CML 20 ATEX 3019X	LifEx-MN
	IEC Ex	CML 20.0008X	For all IEC Ex, TR CU, UKEX and INMETRO certificate data download the certificate from www.cortemgroup.com
	UKEX	AVAILABLE	
	TR CU	AVAILABLE	
	INMETRO	DNV 21.0090X	
Standards:	CENELEC EN60079-0: 2018, EN60079-1: 2014, EN60079-7: 2015, EN60079-18: 2015, EN60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/EU IEC60079-0: 2017, IEC60079-1: 2014, IEC60079-18: 2014, IEC60079-31: 2013, IEC60079-7: 2015 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"		
Ambient temperature:	-60°C for models without a battery -20°C or -60°C* for versions with a battery		For all permitted ambient temperature ranges, please see the "Selection tables"
Degree of protection:	IP66		



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

LifEx-M series Linear LED lighting fixture in aluminum



NO PHOTOBIOLOGICAL
RISK
(IEC / EN 62471 STANDARD)



ORIGINAL PRODUCT

MECHANICAL FEATURES

Body:	Aluminium alloy extrusion and end caps, resistant to atmospheric and marine corrosion
Clear part:	Glass resistant to shocks, impact and UV rays
Gaskets:	Acid and hydrocarbon resistant silicone
Internal frame:	Aluminium extrusion
Screws:	Stainless steel
Entry points:	Max. 4 entries Ø25.5. Standard version with 2 holes Ø20.5 side (1) complete with 1 NAV20IB and 1 PLG11B. For the other versions, plugs and cable glands are on request
Assembly:	Fastening brackets for M8 holes, adjustable 0° to ±30°

ELECTRICAL FEATURES

Power unit:	Electronic
Rated voltage:	110-277 Vac (for more information, see the Selection tables)
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 Vac 50/60 Hz, 110/270 Vdc. Batteries Ni/Mh, 1.8 Ah or 3 Ah, 6V Battery charging monitored by high luminosity green LED
Cabling:	Rigid cables for high temperatures

ACCESSORIES UPON REQUEST / SPECIAL REQUESTS

Pole fastening mechanism
Cage
Coloured LED strip lights
Emergency lighting fixture with battery heater (internal component) for ambient temperatures of -60°C (example code: LifEx-PE-1230NH)
Connection through wiring (code example: LifEx-ME-1230-AAT)
Cable gland
Plugs

LifEx-M series Linear LED lighting fixture in aluminum

The LifEx is a range of tubular LED lighting fixtures that are available in two different configurations for different applications, designated as the **LifEx-ME** and **LifEx-MN**.



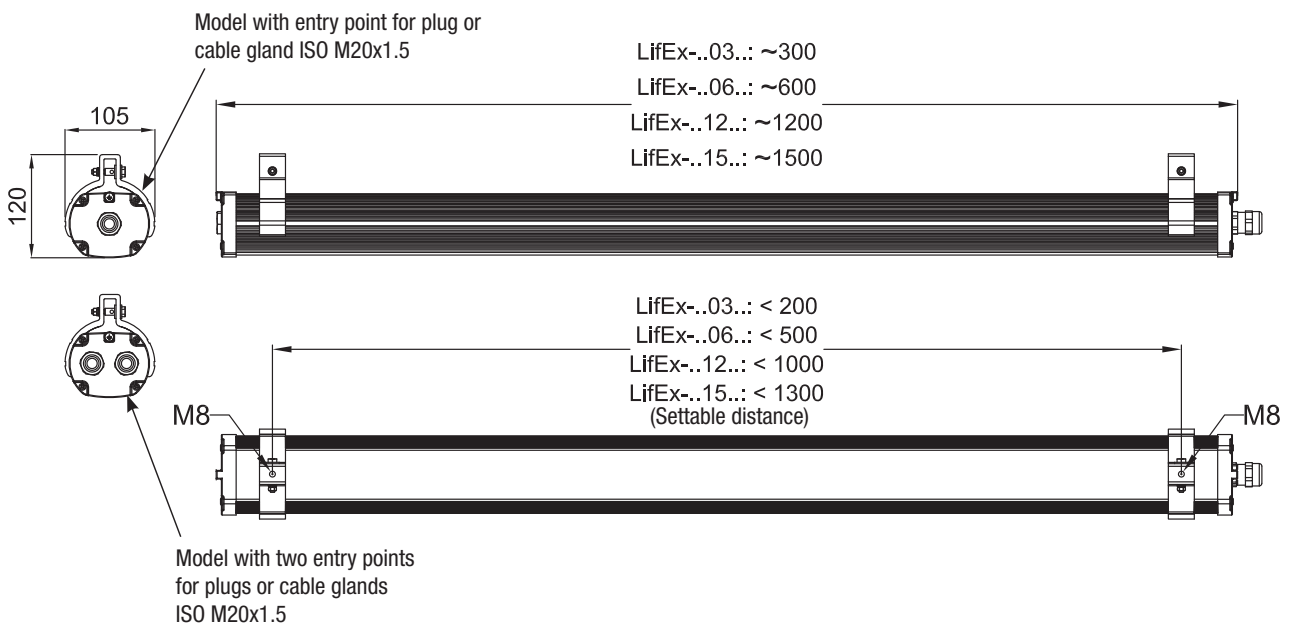
LifEx-ME

The “ME” versions are designed to be used in ATEX areas classified as “Zone 1-2” and “Zone 21-22”, that is where the equipment installed must guarantee a high level of protection both in the presence of mixtures of gases, vapours and mists (Zone 1) and in the presence of combustible dusts and particles (Zone 21). LifEx-ME has an EPL (Equipment Protection Level) Gb, Db. This safety is guaranteed by a combination of protection methods ‘Ex db eb mb’ for gas and ‘Ex tb’ for dust.

LifEx-MN

The “MN” versions are designed to be used in ATEX areas classified as “Zone 2” and “Zone 21-22”, that is where the equipment installed must guarantee a normal level of protection in the presence of mixtures of gases, vapours and mists (Zone 2), and a high level of protection against dusts and combustible particles (Zone 21). LifEx-MN has an EPL (Equipment Protection Level) Gc, Db. This safety is guaranteed by the ‘Ex ec’ protection methods for gases and ‘Ex tb’ for dusts.


DIMENSIONAL DRAWING





LifEx-M series Linear LED lighting fixture in aluminum

Selection table.

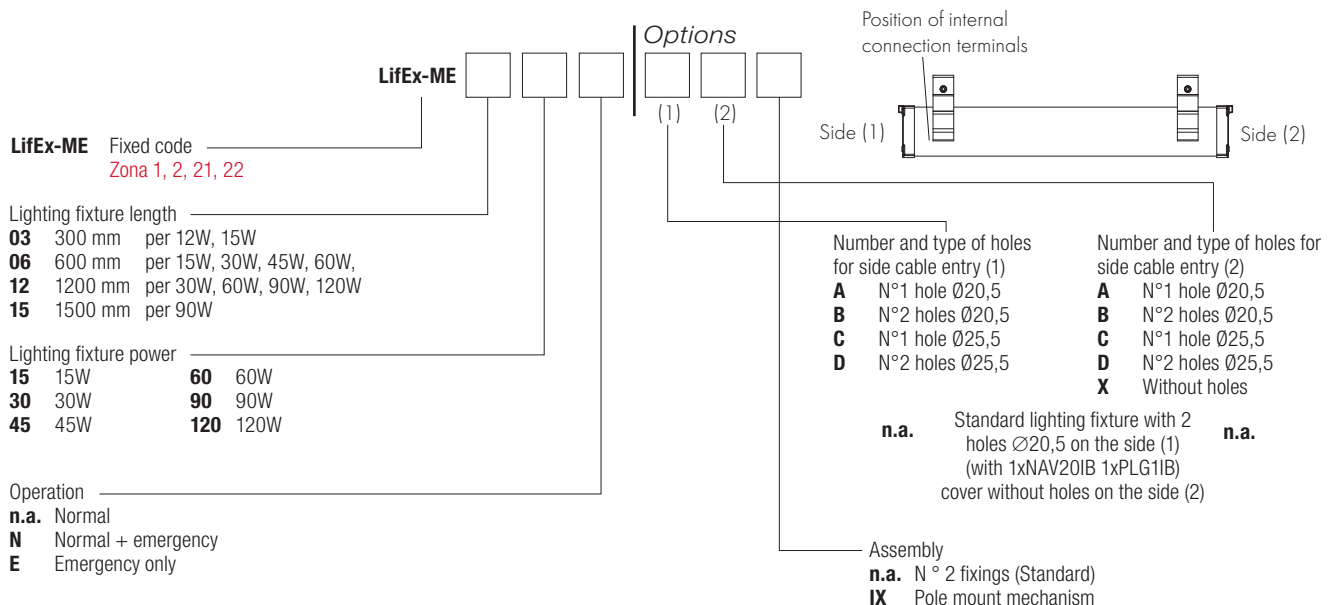
Temperature classes and maximum surface temperatures.

Normal operation											
Code	Real power Watt	Rated power Watt	Supply voltage Volt	Temperature class / Maximum surface temperature			Lumen lm	Light intensity cd	Overall efficiency Lm/W	Weight kg	mm 
				+40°C	+50°C	+60°C					
LifEx-ME-0315	13,9	15,0	220-240 Vac	T62°C/T6	T67°C/T6	T77°C/T5	1865	738	134	1,5	541x103x132
LifEx-ME-0615	15,0	15,0	220-240 Vac	T62°C/T6	T67°C/T6	T77°C/T5	2008	777	134	2,5	840x103x132
LifEx-ME-0630	26,2	30,0	110-277 Vac	T85°C/T6	T90°C/T5	T100°C/T4	3677	1345	140	2,5	840x103x132
LifEx-ME-0645	43,5	45,0	110-277 Vac	T88°C/T6	T93°C/T5	-	6200	2248	143	2,5	840x103x132
LifEx-ME-0660	54,5	60,0	110-277 Vac	T100°C/T6	-	-	8011	2924	147	2,5	840x103x132
LifEx-ME-1230	29,0	30,0	110-277 Vac	T65°C/T6	T70°C/T6	T80°C/T5	4112	1451	142	3,5	1398x103x132
LifEx-ME-1260	55,7	60,0	110-277 Vac	T85°C/T6	T90°C/T5	T100°C/T4	8316	2930	149	3,5	1398x103x132
LifEx-ME-1290	79,3	90,0	120-277 Vac	T94°C/T6	T99°C/T4	T109°C/T4	12228	4323	154	3,5	1398x103x132
LifEx-ME-12120	102,6	120,0	220-277 Vac	T96°C/T5	T101°C/T4	-	16029	5662	156	3,4	1398x103x132
LifEx-ME-1590	78,6	90,0	120-277 Vac	T94°C/T6	T99°C/T4	T109°C/T4	11926	4204	152	4,0	1738x103x132

Normal operation + emergency												
Code	Real power Watt	Rated power Watt	Supply voltage Volt	Temperature class / Maximum surface temperature			Lumen lm	Light intensity cd	Overall efficiency Lm/W	Discharge time in minutes	Weight kg	mm 
				+40°C	+50°C	+60°C						
LifEx-ME-0615N	15,0	15,0	220-240 Vac	T62°C/T6	T67°C/T6	T77°C/T5	2008	777	134	90	3,0	840x103x132
LifEx-ME-0630N	26,2	30,0	220-240 Vac	T85°C/T6	T90°C/T5	T100°C/T4	3677	1345	140	90	3,0	840x103x132
LifEx-ME-1230N	29,0	30,0	110-277 Vac	T65°C/T6	T70°C/T6	T80°C/T6	4112	1451	142	180	4,5	1398x103x132
LifEx-ME-1260N	55,7	60,0	110-277 Vac	T85°C/T6	T90°C/T5	T100°C/T4	8316	2930	149	180	4,5	1398x103x132
LifEx-ME-1590N	78,6	90,0	120-277 Vac	T94°C/T6	T99°C/T4	T109°C/T4	11926	4204	152	180	5,0	1738x103x132

Emergency operation only										
Code	Supply voltage Volt	Temperature class / Maximum surface temperature			Lumen lm	Light intensity cd	Discharge time in minutes	Weight kg	mm 	
		+40°C	+50°C	+60°C						
LifEx-ME-0615E	110-277 Vac	T62°C/T6	T67°C/T6	T77°C/T5	1167	421	90	2,5	840x103x132	
LifEx-ME-1230E	110-277 Vac	T65°C/T6	T70°C/T6	T80°C/T5	1151	407	90	3,5	1398x103x132	

ORDER CODE LOGIC



LifEx-M series Linear LED lighting fixture in aluminum

Selection table.

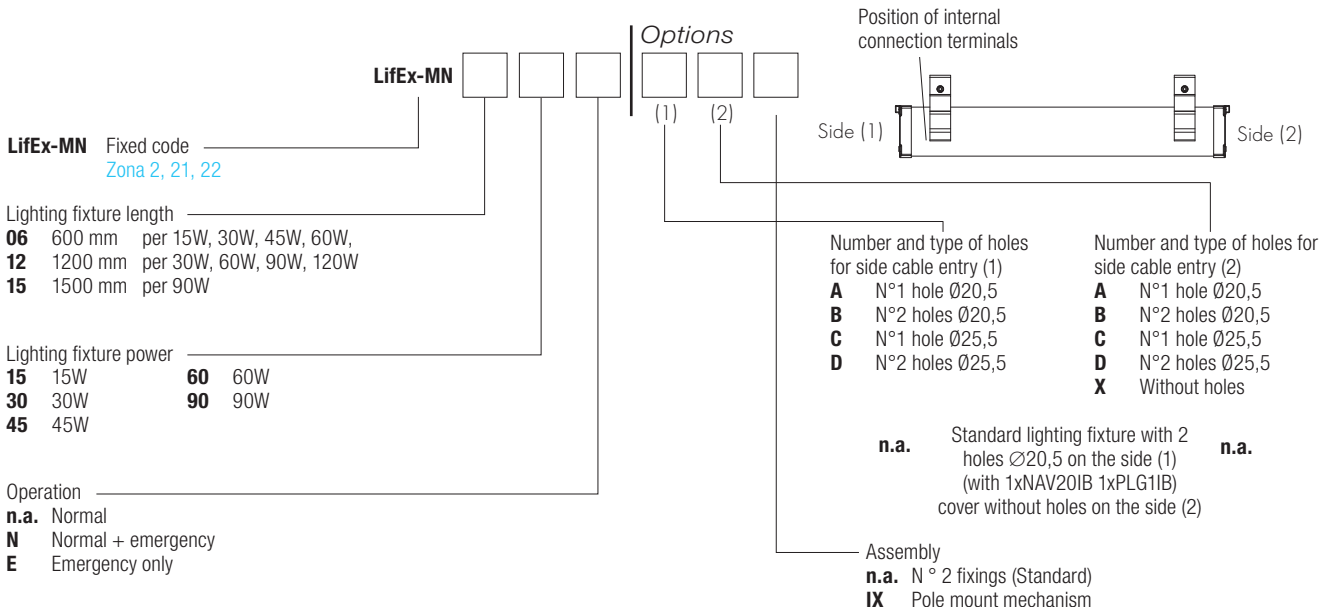
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LifEx-MN-0615	15,0	15,0	220-240 Vac	T62°C/T6	T67°C/T6	T77°C/T5	2008	777	134	2,0	840x103x132
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ORDER CODE LOGIC









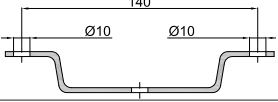


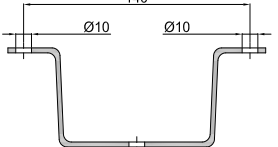


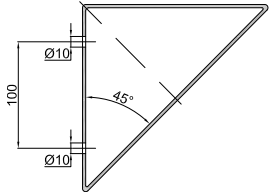


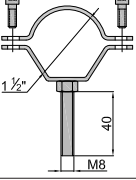





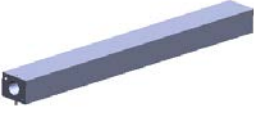

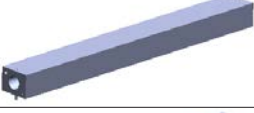







LifEx-M series Linear LED lighting fixture in aluminum

Electrical features	LifEx-ME-03..	LifEx-ME-06..	LifEx-ME-12..	LifEx-ME-15..
Supply voltage:	..15 220-240 Vac	..15 220-240 Vac	..30 110-277 Vac	..90 120-277 Vac
	-	..30 110-277 Vac	..60 110-277 Vac	-
	-	..45 110-277 Vac	..90 120-277 Vac	-
	-	..60 110-277 Vac	..120 220-277 Vac	-
Rated frequency:	50-60 Hz ±5%	50-60 Hz ±5%	50-60 Hz ±5%	50-60 Hz ±5%
Lamp real power consumption:	..15 13,9 W	..15 15,0 W	..30 29,0 W	..90 78,6 W
	-	..30 26,2 W	..60 55,7 W	-
	-	..45 43,5 W	..90 79,3 W	-
	-	..60 54,5 W	..120 102,6 W	-
Connection:	Direct connection to terminal board L, N, Pe. Section 4mm ² , suitable for loop-in/loop-out			
Power factor:	..15 0,96	..15 0,97	..30 0,93	..90 0,98
	-	..30 0,93	..60 0,96	-
	-	..45 0,93	..90 0,98	-
	-	..60 0,96	..120 0,98	-
Rated current:	..15 70 mA	..15 70 mA	..30 150 mA	..90 350 mA
	-	..30 150 mA	..60 250 mA	-
	-	..45 200 mA	..90 350 mA	-
	-	..60 250 mA	..120 500 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:	1 kV	1 kV	..30 1 kV	4 kV
			..60 1 kV	
			..90 4 kV	
			..120 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:	YES			
L90:	> 54000 hours			










LifEx-M series Linear LED lighting fixture in aluminum

Electrical features	LifEx-MN-06..	LifEx-MN-12..	LifEx-MN-15..
Supply voltage:	..15 220-240 Vac	..30 220-240 Vac	..90 220-240 Vac
	..30 220-240 Vac	..60 220-240 Vac	-
	..45 220-240 Vac	..90 220-240 Vac	-
	..60 220-240 Vac	..120 220-240 Vac	-
	-	-	-
Rated frequency:	50-60 Hz ±5%	50-60 Hz ±5%	50-60 Hz ±5%
Lamp real power consumption:	..15 15,0 W	..30 30,2 W	..90 80,3 W
	..30 31,5 W	..60 56,9 W	-
	..45 45,1 W	..90 80,4 W	-
	..60 58,1 W	..120 111,2 W	-
	-	-	-
Connection:	Direct connection to terminal board L, N, Pe. Section 4mm ² , suitable for loop-in/loop-out		
Power factor:	..15 0,97	..30 0,93	..90 0,98
	..30 0,93	..60 0,96	-
	..45 0,93	..90 0,98	-
	..60 0,96	..120 0,98	-
	-	-	-
Rated current:	..15 70 mA	..30 150 mA	..90 350 mA
	..30 150 mA	..60 250 mA	-
	..45 200 mA	..90 350 mA	-
	..60 250 mA	..120 500 mA	-
	-	-	-
EMC (Electromagnetic Compatibility):	EN 55015, EN 61547, IEC 61000-3-2, IEC 61000-3-3		
THD (Total Harmonic Distortion):	<8% 230 Vac, 50 Hz		
Over-voltage protection:	1kV		
Driver performance levels:	Over-Voltage Protection, Over-Current Protection, Short-Circuit Protection		
Photometric features			
Multichip LED:	Mid power		
Viewing angle:	120°		
Colour temperature:	5000 K		
CRI:	>80		
Instant Restrike:	YES		
L90:	> 54000 hours		

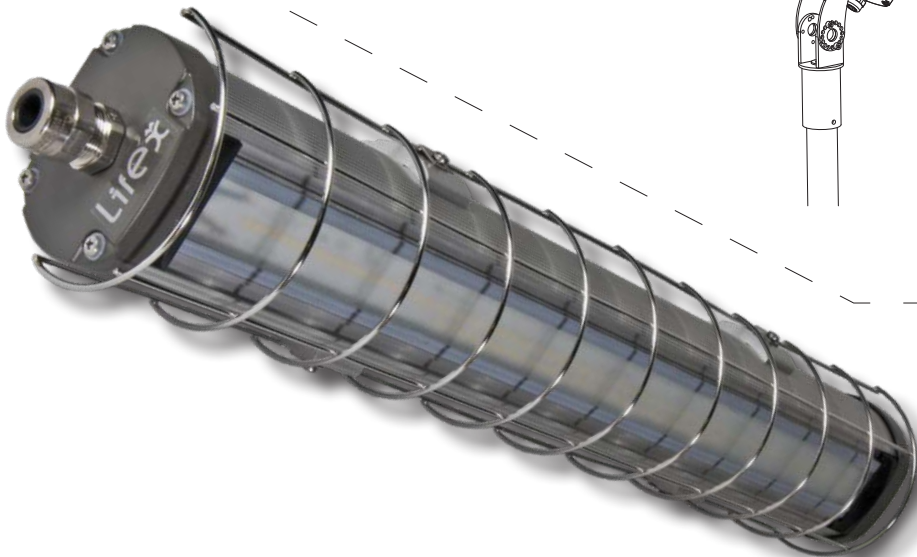
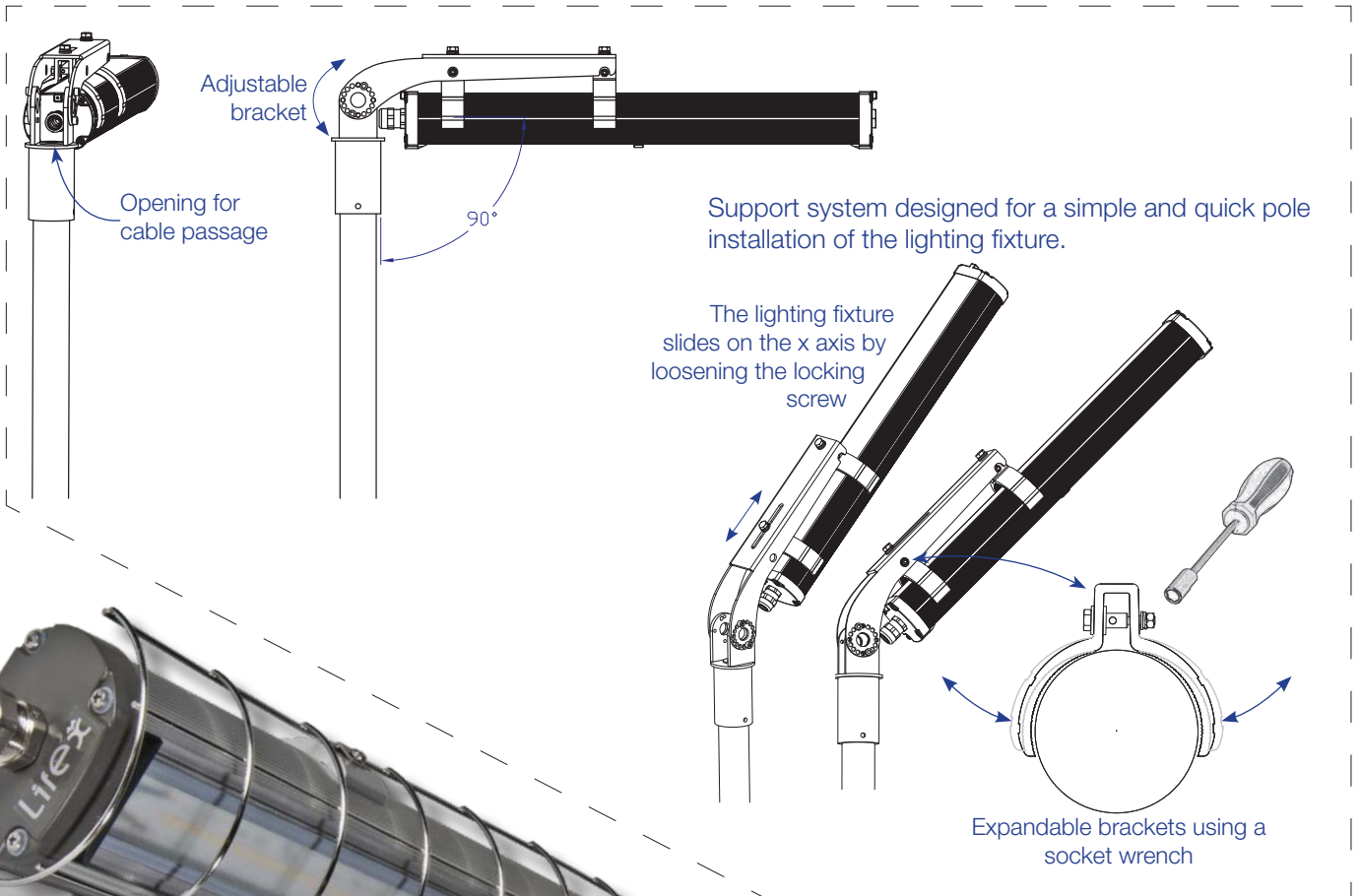
LifEx-M series Linear LED lighting fixture in aluminum

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	Rod	Length: 250 mm	Material: stainless steel	BRF8MIN/250	 
	O-type eye bolt		Material: galvanized steel	G0F-8	 
	Bracket type U complete with screws		Material bracket: galvanized steel screws: stainless steel	G-0609	 
	Bracket type V complete with screws		Material bracket: galvanized steel screws: stainless steel	G-0610	 
	Bracket type D complete with screws		Material bracket: galvanized steel screws: stainless steel	G-0611	 
	Bracket type P		Material: galvanized steel	G-0480	 
	Cable gland		For cable gland models and codes, please see www.cortemgroup.com	NAV20IB	 
	Resinated electronic power unit	LifEx-ME-0315		EBL3040-1-10/1	
		LifEx-ME-0615		EBL3040-1-15	
		LifEx-ME-0630 LifEx-ME-0645 LifEx-ME-1230 LifEx-ME-1230N		EBL3040-1-30	
		LifEx-ME-0660 LifEx-ME-1260 LifEx-ME-1260N		EBL3040-1-60	
		LifEx-ME-1290 LifEx-ME-12120 LifEx-ME-1590 LifEx-ME-1590N		EBL3040-1-90	
		LifEx-MN-..		LEDDLIFEXN	
	Electronic power unit and inverter	LifEx-ME-0615N		EBL4040-2-15N	
		LifEx-ME-0630N		EBL4040-2-30N	
	Resinated inverter	LifEx-ME-..E LifEx-ME-12..N LifEx-ME-15..N		EIL4040-1	
	Inverter	LifEx-MN-..E LifEx-MN-..N		INVERTER/LED/NM	
	Battery for -60°C	Duration 180 minutes	3 Ah	G-0698	

LifEx-M series Linear LED lighting fixture in aluminum

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	Battery unit	LifEx-M...-...E LifEx-ME-06-...N	NiMH, 1.8Ah	G-1096/B	
		LifEx-MN-06...N LifEx-M...-12...N LifEx-M...-15...N	NiMH, 3Ah	G-1097/F	
	Pole bracket Ø1 1/2"	LifEx-M....	Material: galvanized steel	G-0686	 
	Protective cage kit	LifEx-M...-03...	Material: Stainless steel with electropolishing treatment	G01-0675	 
		LifEx-M...-06...		G1-0675	
		LifEx-M...-12...		G2-0675	
		LifEx-M...-15...		G3-0675	

Pole mount mechanism, code G-0686



LifEx-M series lighting fixture with Kit for additional protection cage complete with support brackets and screws in stainless steel.

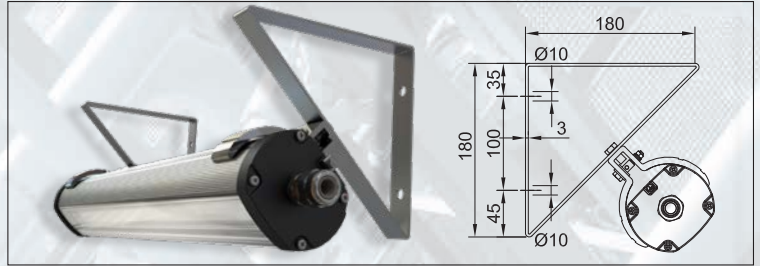
Typical assemblies with installation accessories



Pole mount mechanism with adjustable bracket



Adjustable 0° to ±30°



45° corner mount TYPE "D"



Ceiling mount, tall model TYPE "U"



Ceiling mount, tall model TYPE "V"



Suspended mount with eye bolt TYPE "O"



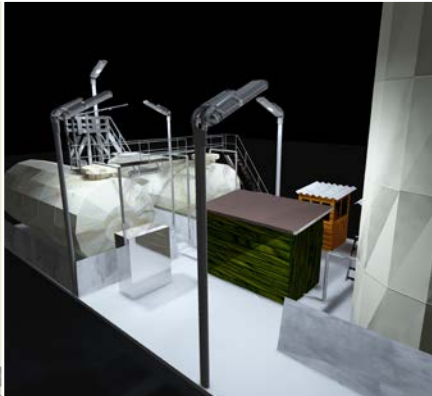
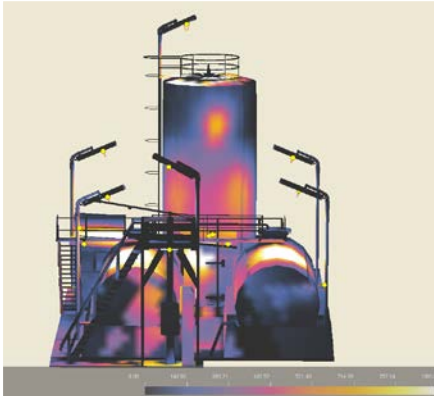
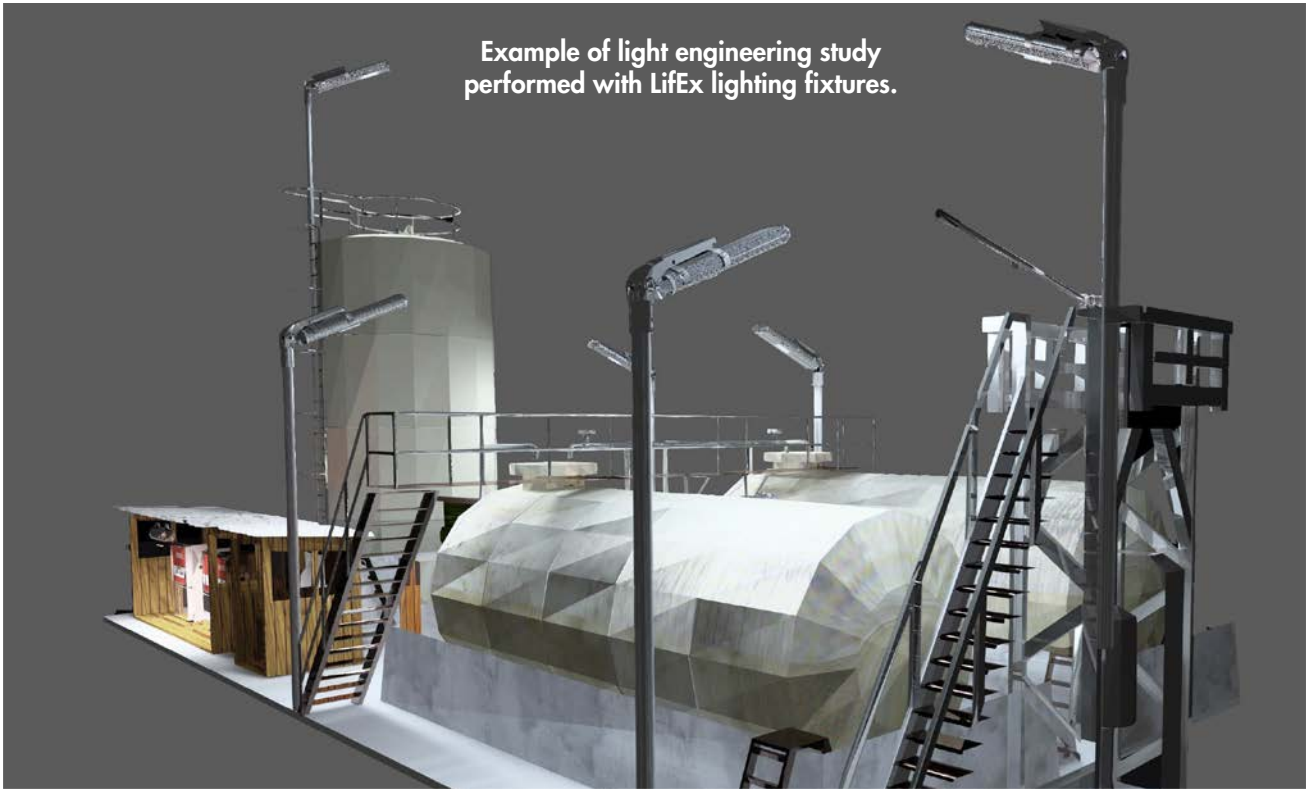
Ceiling mount with 250 mm rod



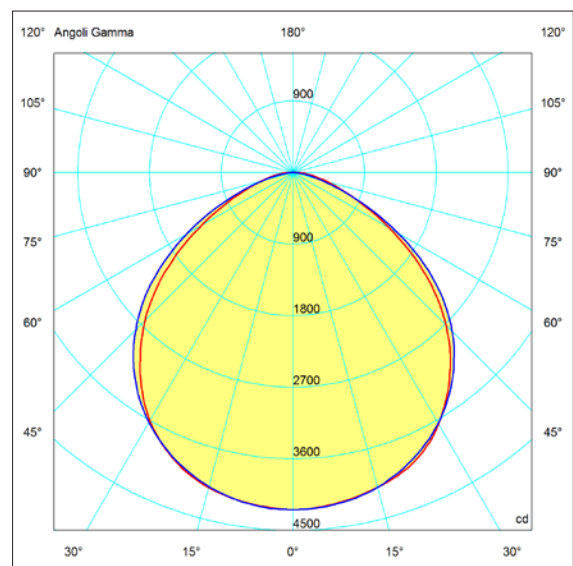
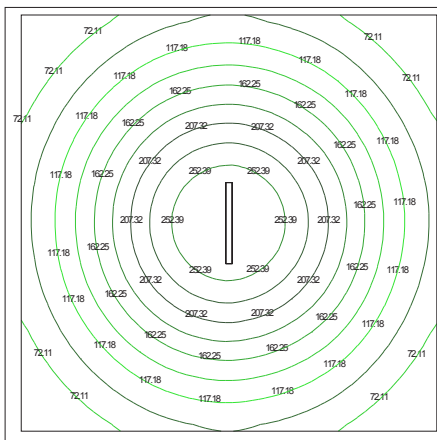
Mount with metal clamps 1 1/2" TYPE "P"

LifEx-M series Linear LED lighting fixture in aluminum

Example of light engineering study performed with LifEx lighting fixtures.



Floor lighting relating to LifEx-ME-1590 expressed in lux in a room 6 m x 6 m with fixture at the centre at a height of 3.5 cm.



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.

— = level 90270
— = level 0180