

# LifeX-M

- Complete with high efficiency LED strip lights
- Low consumption
- Compact size
- Easy to install
- Zone 1, 2, 21, 22
- 5 years warranty
- IK09 (IK10 with protective cage)



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

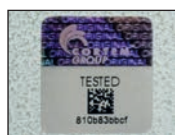
## CERTIFICATE DATA

<b>Classification:</b>	Group II	Category 2GD/3G	
<b>Installation:</b> EN 60079.14	zone 1, 2, 21, 22 <i>LifEx-ME</i>	zone 2, 21, 22 <i>LifEx-MN</i>	
<b>Marking:</b>	CE 0722 Ex II 2GD - Ex db eb mb IIC T.. Gb - Ex tb IIIC T.. °C Db - IP66		<i>LifEx-ME</i>
	CE Ex II 3G - Ex ec IIC T.. Gc CE 0722 Ex II 2D - Ex tb IIIC T.. °C Db - IP66		<i>LifEx-MN</i>
<b>Certificate:</b>	ATEX CML 20 ATEX 3018X	<i>LifEx-ME</i>	
	ATEX CML 20 ATEX 3019X ATEX CML 20 ATEX 3018X	<i>LifEx-MN</i>	
	IEC Ex CML 20.0008X	For all IEC Ex, INMETRO, TR CU and UKEX certificate data download the certificate from <a href="http://www.cortemgroup.com">www.cortemgroup.com</a>	
	UKEX AVAILABLE		
	INMETRO AVAILABLE		
	UL PENDING		
<b>Standards:</b>	CENELEC EN60079-0: 2018, EN60079-1: 2014, EN60079-7: 2015, EN60079-18: 2015, EN60079-31: 2014, EN60598-2-22 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		
 <b>Temperature class:</b>	For all permitted ambient temperature classes, please see the "Selection tables"		
 <b>Ambient temperature:</b>	-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"	
<b>Degree of protection:</b>	IP66		



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

## LifEx-M series Linear LED lighting fixture in aluminum



For more information on electrical connectors



### MECHANICAL FEATURES

<b>Body:</b>	Aluminium alloy extrusion and end caps, resistant to atmospheric and marine corrosion
<b>Clear part:</b>	Tempered glass resistant to shocks, impact and UV rays
<b>Gaskets:</b>	Acid and hydrocarbon resistant silicone
<b>Internal frame:</b>	Aluminium extrusion
<b>Screws:</b>	Stainless steel
<b>Entry points:</b>	Max. 4 entries Ø25.5. Standard version with 2 holes Ø20.5 side (1) complete with 1 NAV201B and 1 PLG11B. For the other versions, plugs and cable glands are on request
<b>Assembly:</b>	Fastening brackets for M8 holes, adjustable 0° to ±30°

### ELECTRICAL FEATURES

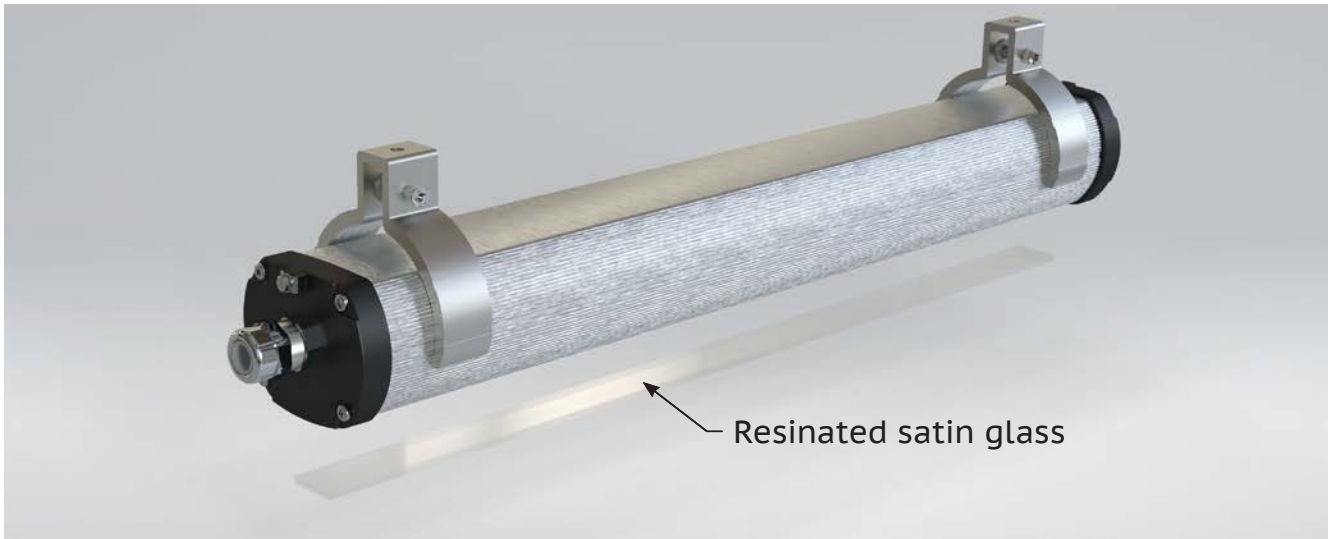
<b>Power unit:</b>	Electronic
<b>Rated voltage:</b>	110-277 Vac (for more information, see the Selection tables)
<b>Rated frequency:</b>	50/60 Hz
<b>Connection:</b>	Directly to the terminal board L, N, Pe cross sec. max. 4 mm <sup>2</sup> jumpered terminal board suitable for in-out from a single side
<b>Emergency unit:</b>	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
<b>Cabling:</b>	Rigid cables for high temperatures

### ACCESSORIES UPON REQUEST / SPECIAL REQUESTS

- Pole fastening mechanism
- Cage
- Coloured LED strip lights
- Emergency lighting fixture with battery box to facilitate battery maintenance/replacement operations (example code: LifEx-ME-1230N-AE)
- Emergency lighting fixture with battery heater (internal component) for ambient temperatures of -60°C, supplied voltage 230Vac. (example code: LifEx-ME-1230NH)
- Connection through wiring (code example: LifEx-ME-1230-AAT)
- Dimming of lighting fixtures with DALI standard (Contact our Sales Office for availability)
- Driver multirange
- Vdc voltage range
- Cable gland and plugs
- Electrical connectors

# 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**.



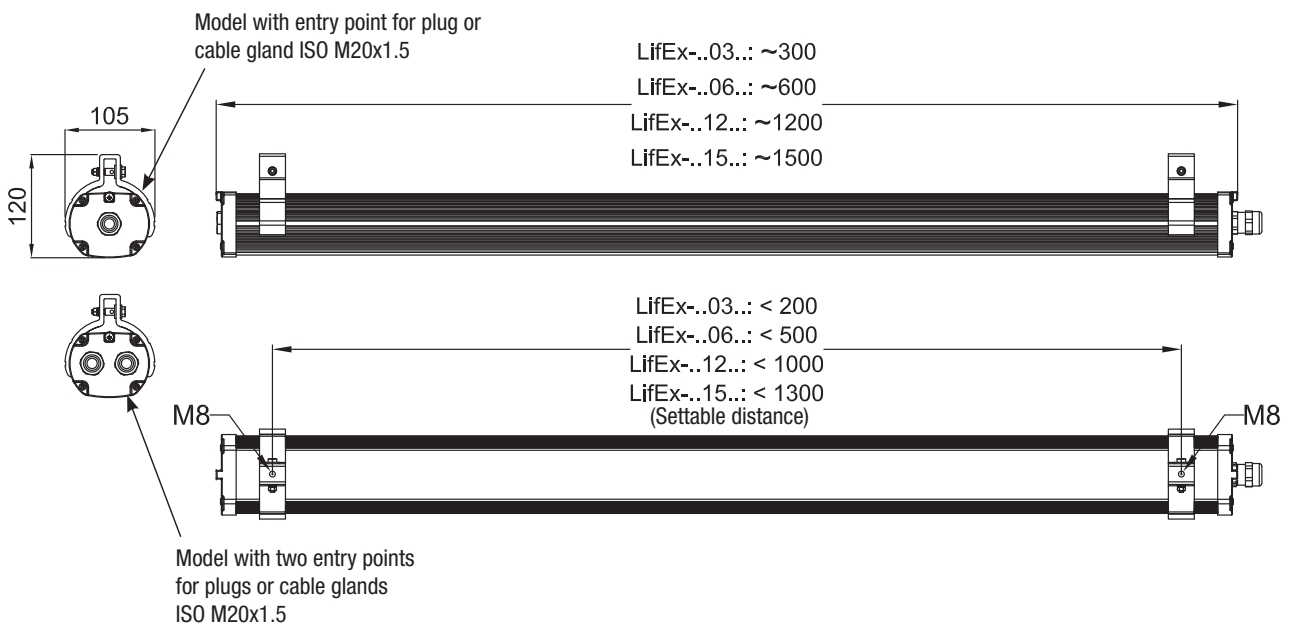
## LifEx-ME

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	Maximum surface temperature			Lumen lm	Light intensity cd	Overall efficiency Lm/W	Weight kg	mm
				+40°C	+50°C	+60°C					
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
LifEx-MN-0630	26,2	30,0	110-277 Vac	T85°C/T6	T90°C/T5	T100°C/T4	3677	1345	140	2,0	840x103x132
LifEx-MN-0645	43,5	45,0	110-277 Vac	T88°C/T6	T93°C/T5	-	6200	2248	143	2,0	840x103x132
LifEx-MN-0660	54,5	60,0	110-277 Vac	T100°C/T6	-	-	8011	2924	147	2,0	840x103x132
LifEx-MN-1230	29,0	30,0	110-277 Vac	T65°C/T6	T70°C/T6	T80°C/T5	4112	1451	142	3,0	1398x103x132
LifEx-MN-1260	55,7	60,0	110-277 Vac	T85°C/T6	T90°C/T5	T100°C/T4	8316	2930	149	3,0	1398x103x132
LifEx-MN-1290	79,3	90,0	120-277 Vac	T94°C/T6	T99°C/T4	T109°C/T4	12228	4323	154	3,0	1398x103x132
LifEx-MN-1590	78,6	90,0	120-277 Vac	T94°C/T6	T99°C/T4	T109°C/T4	11926	4204	152	3,5	1738x103x132

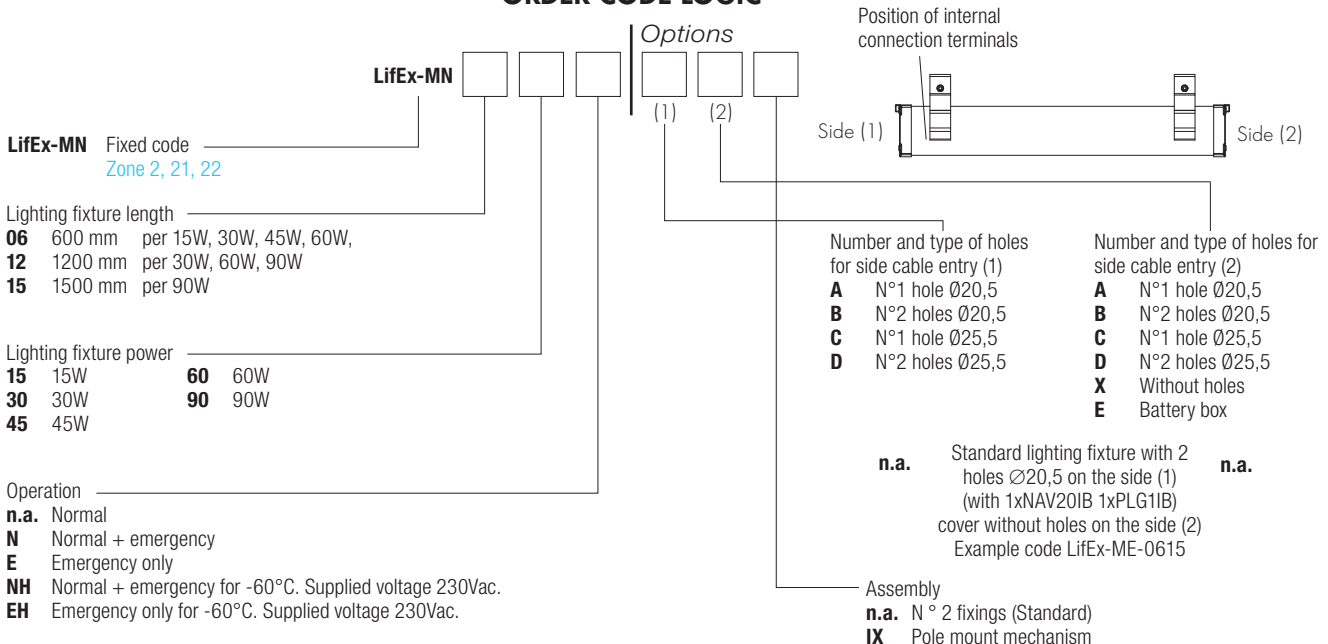
Normal operation + emergency										
Code	Real power Watt	Rated power Watt	Supply voltage Volt	Maximum surface temperature			Lumen lm	Discharge time in minutes	Weight kg	mm
				+40°C	+50°C	+60°C				
LifEx-MN-0615N	15,0	15,0	220-240 Vac	T62°C/T6	T67°C/T6	T77°C/T5	980	90	3,0	840x103x132
LifEx-MN-0630N	26,2	30,0	220-240 Vac	T85°C/T6	T90°C/T5	T100°C/T4	980	90	3,0	840x103x132
LifEx-MN-1230N*	29,0	30,0	110-277 Vac	T65°C/T6	T70°C/T6	T80°C/T5	994	180	4,5	1398x103x132
LifEx-MN-1260N*	55,7	60,0	110-277 Vac	T85°C/T6	T90°C/T5	T100°C/T4	994	180	4,5	1398x103x132
LifEx-MN-1590N*	78,6	90,0	120-277 Vac	T94°C/T6	T99°C/T4	T109°C/T4	932	180	5,0	1738x103x132

Emergency operation only										
Code	Supply voltage Volt	Maximum surface temperature			Lumen lm	Discharge time in minutes	Weight kg	mm		
		+40°C	+50°C	+60°C						
LifEx-MN-0615E*	110-277 Vac	T62°C/T6	T67°C/T6	T77°C/T5	1167	90	2,0	840x103x132		
LifEx-MN-1230E*	110-277 Vac	T65°C/T6	T70°C/T6	T80°C/T5	1151	90	3,0	1398x103x132		

\* Models with emergency feature available -60°C

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

## ORDER CODE LOGIC



## LifEx-M series Linear LED lighting fixture in aluminum







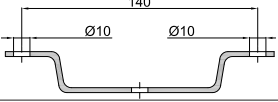


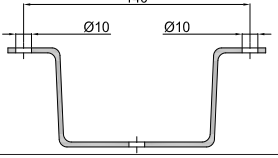


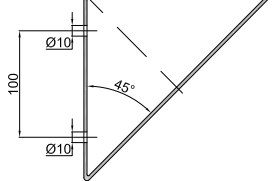


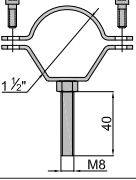












Electrical features	LifEx-ME-03..	LifEx-ME-06..	LifEx-ME-12..	LifEx-ME-15..
Supply voltage:	..15 220-240 Vac	..15 220-240 Vac	..30 110-277 Vac	..90 120-277 Vac
	..30 220-240 Vac	..30 110-277 Vac	..60 110-277 Vac	-
	-	..45 110-277 Vac	..90 120-277 Vac	-
	-	..60 110-277 Vac	..120 220-277 Vac	-
Rated frequency:	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 26,6 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 <sup>2</sup> , suitable for loop-in/loop-out			
Power factor:	..15 0,96	..15 0,97	..30 0,93	..90 0,98
	..30	..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	..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			
<b>Photometric features</b>				
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	..30 110-277 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	-	-
	-	-	-
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	-	-
	-	-	-
Connection:	Direct connection to terminal board L, N, Pe. Section 4mm <sup>2</sup> , 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	-	-
	-	-	-
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	-	-
	-	-	-
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		
<b>Photometric features</b>			
Multichip LED:	Mid power		
Viewing angle:	120°		
Colour temperature:	5000 K		
CRI:	>80		
Instant Restrike:	YES		
L90:	> 54000 hours		



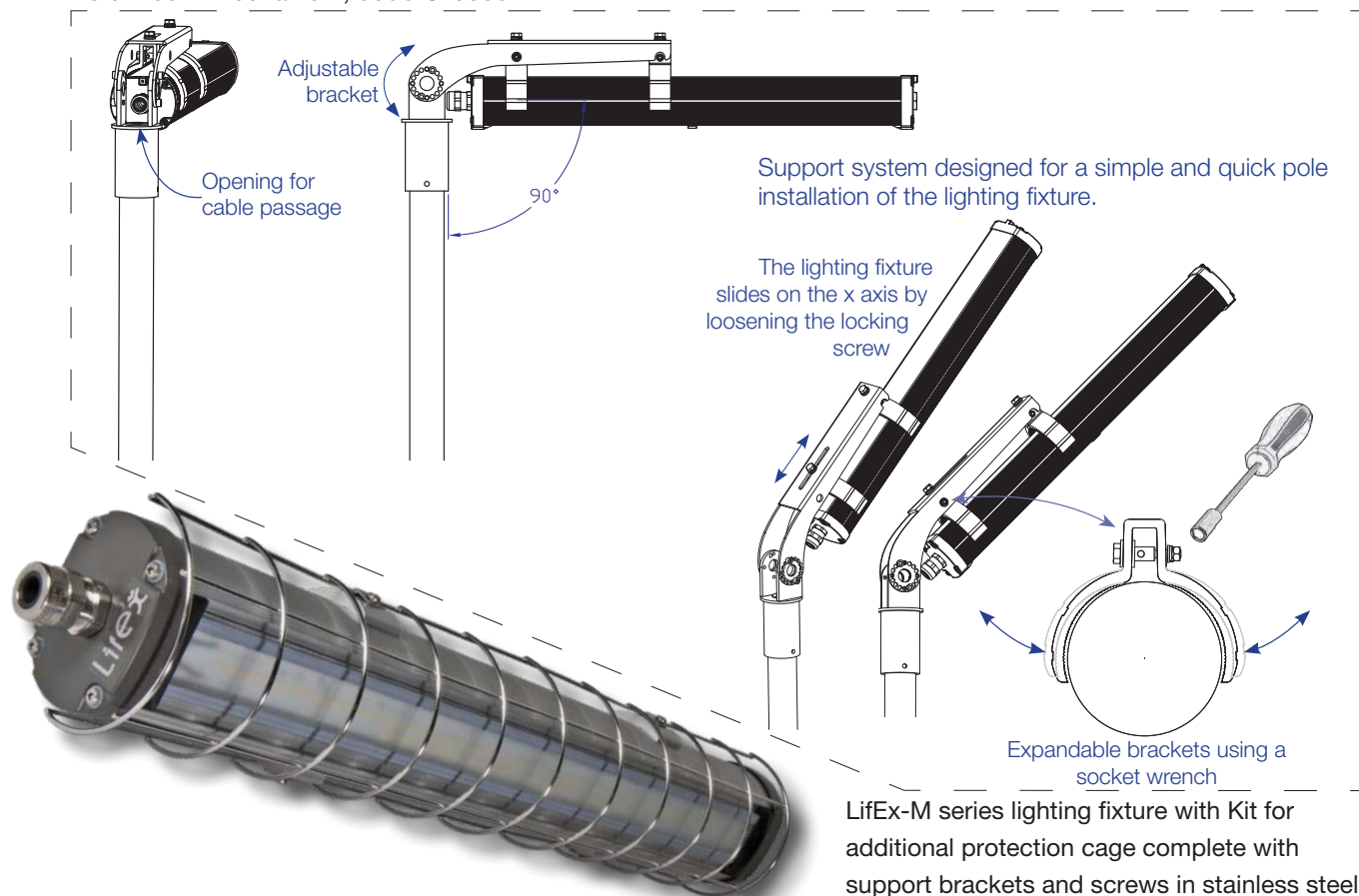
## LifEx-M series Linear LED lighting fixture in aluminum

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	Rod	Length: 250 mm	Material: stainless steel	<b>BRF8MIN/250</b>	 
	O-type eye bolt		Material: galvanized steel	<b>GOF-8</b>	 
	Bracket type U complete with screws		Material bracket: galvanized steel screws: stainless steel	<b>G-0609</b>	 
	Bracket type V complete with screws		Material bracket: galvanized steel screws: stainless steel	<b>G-0610</b>	 
	Bracket type D complete with screws		Material bracket: galvanized steel screws: stainless steel	<b>G-0611</b>	 
	Bracket type P		Material: galvanized steel	<b>G-0480</b>	 
	Cable gland		For cable gland models and codes, please see <a href="http://www.cortemgroup.com">www.cortemgroup.com</a>	<b>NAV20IB</b>	 
	Resinated electronic power unit	LifEx-ME-0315 LifEx-M..-0615 LifEx-MN-0615N..		<b>EBM-30L/350</b>	
		LifEx-ME-0330 LifEx-MN-0630N..		<b>EBM-30L/700</b>	
		LifEx-M..-0630 LifEx-M..-0645 LifEx-M..-0660 LifEx-M..-1230 LifEx-M..-1260 LifEx-M..-1290 LifEx-M..-1590 LifEx-ME-12120		<b>EBM-100L/350</b>	
		LifEx-ME-1230.. LifEx-ME-1260.. LifEx-ME-1590..			
		LifEx-MN-1230N.. LifEx-MN-1260N.. LifEx-MN-1590N..			
		LifEx-ME-0615N..		<b>EBL4040-2-15N</b>	
		LifEx-ME-0630N..		<b>EBL4040-2-30N</b>	
	Electronic power unit and inverter	LifEx-ME-0615N..		<b>EBL4040-2-15N</b>	
		LifEx-ME-0630N..		<b>EBL4040-2-30N</b>	
 	Resinated inverter(LifEx-ME)	LifEx-ME-1230N.. LifEx-ME-1260N.. LifEx-ME-1590N.. LifEx-ME-0615E.. LifEx-ME-1230E..		<b>EIM-30L</b>	
	Not resinated (LifEx-MN)	LifEx-MN-0615N.. LifEx-MN-1630N.. LifEx-MN-1230N.. LifEx-MN-1260N.. LifEx-MN-1590N.. LifEx-MN-0615E.. LifEx-MN-1230E..		<b>INVERTER/LED/NM</b>	

## LifEx-M series Linear LED lighting fixture in aluminum

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	Battery for -60°C	Duration 180 minutes	3 Ah	<b>G-0698</b>	
	Battery unit	LifEx-M...-...E LifEx-ME-06-...N	NiMH, 1.8Ah	<b>G-1096/B</b>	
		LifEx-MN-06...N LifEx-M...-12...N LifEx-M...-15...N	NiMH, 3Ah	<b>G-1097/F</b>	
	Battery box	Duration 180 minutes	3 Ah	<b>G-0707/3AH</b>	
		Duration 90 minutes	1.8 Ah	<b>G-0707/1.8AH</b>	
	Pole bracket Ø1 1/2"	LifEx-M....	Material: galvanized steel	<b>G-0686</b>	 
	Protective cage kit	LifEx-M...-03...	Material: Stainless steel AISI 316L with electropolishing treatment	<b>G01-0675</b>	 
		LifEx-M...-06...		<b>G1-0675</b>	
		LifEx-M...-12...		<b>G2-0675</b>	
		LifEx-M...-15...		<b>G3-0675</b>	
	Electrical connectors	LifEx-M....	For models and codes, visit <a href="http://www.cortemgroup.com">www.cortemgroup.com</a>	<b>FASTEX...</b>	 

### Pole mount mechanism, code G-0686



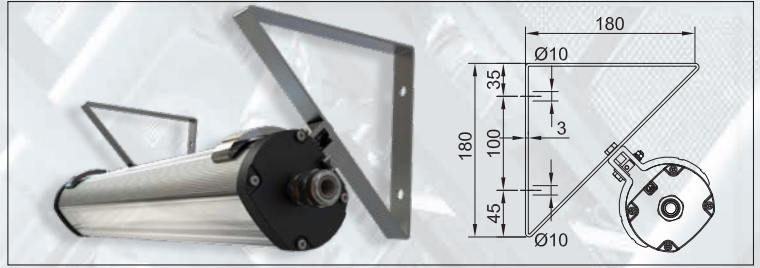
**Typical assemblies with installation accessories**



**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"**



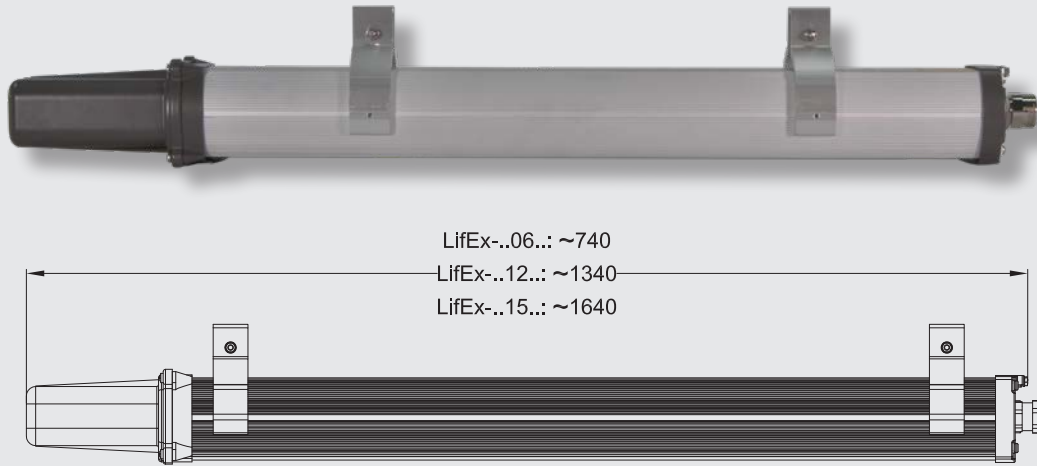
**Ceiling mount with 250 mm rod**



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

# LifEx-M series Linear LED lighting fixture in aluminum

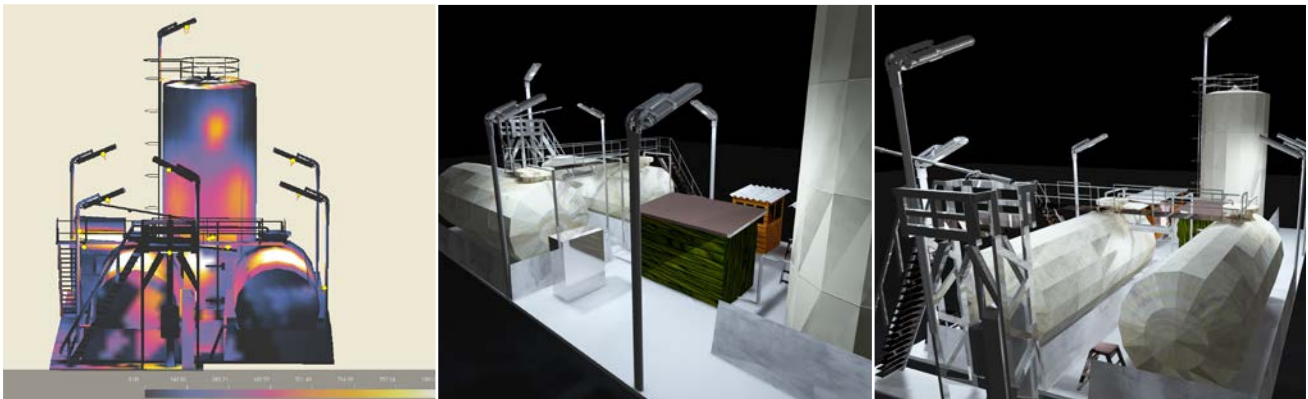
**Emergency lighting fixture with battery box**  
Version to facilitate battery maintenance/replacement operations.



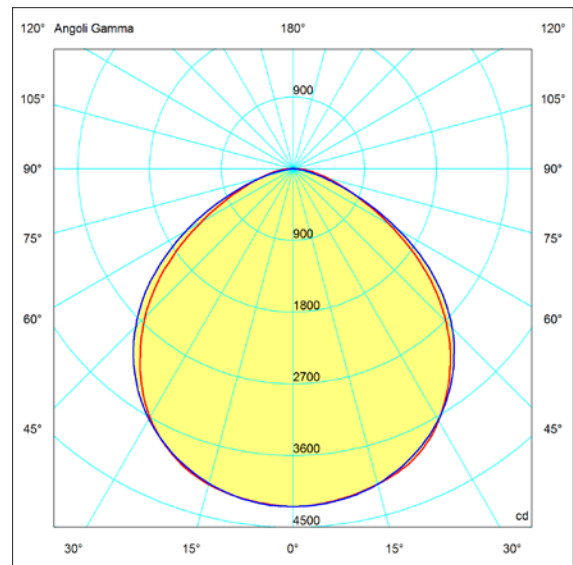
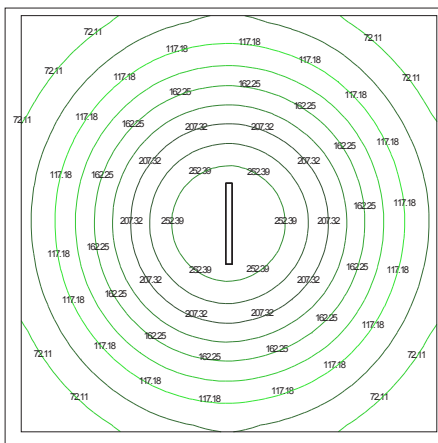
Versions available with cable entry in SIDE 1 only

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

## 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](http://www.cortemgroup.com).

— = level 90270  
— = level 0180