



LED MARINE LANTERN

MBL 160-Ex



The MBL 160-Explosion Proof lantern is a LED marine flashing lantern of short and medium range, with a great optical efficiency and low consumption, fitted with LED diodes of high intensity, reaching a maximum range of 14 nautical miles.

Its luminous source consists of an innovating lens system especially designed to take the maximum profit of LED diodes, thus obtaining an output of up to 180 Cd/W.

This lantern belongs to the ATEX Classification Group II, Category 2 assuring a high protection level. This allows the use of this lantern in potentially explosive atmospheres, classified for Zone 1 and Zone 2.

Designed according to IALA Recommendations.

FEATURES

- ✓ ATEX Classification:
GROUP II: Equipment on surface (no mining).
ZONE 1: Category 2.
ATMOSPHERE: GAS.
- ✓ High-efficiency luminous system.
Up to 10 nm (T=0.74), 14 nm (T=0.85).
- ✓ Vertical divergence of 5°.
- ✓ 360° horizontal output.
- ✓ Average operation lifetime over 10 years.
- ✓ Internal photocell adjustable in lux.
- ✓ IP 68 watertightness degree (immersion resistant).
- ✓ Linear adjustment of luminous intensity.
- ✓ RS-232 serial port for setting adjustments by PC.
- ✓ Short-circuit, reverse-polarity and transient overvoltage protections.
- ✓ **PATENTED OPTICAL SYSTEM.**

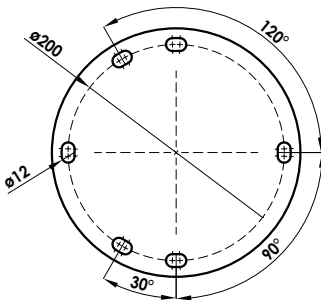
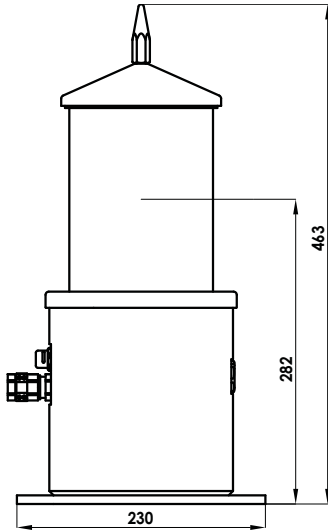


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Specifications subject to change without previous notice.



Optical System	
Light source:	3 to 9 nos. ultra-bright LED diodes, with high-precision acrylic lens.
Luminous range:	Up to 10 nm (T=0.74) 14 nm (T=0.85).
Colours available:	White, green, red and amber.
Vertical divergence:	5° (50% I ₀).
LED average life:	More than 100.000 hours.
Power supply:	From 10 to 25V.
Lantern consumption:	From 1 to 18W.
Idle current:	3 mA.

MF14-Ex Electronic Flasher	
Circuit based on microprocessor.	
256 flash characters, selectable by using minidips.	
Internal photocell.	
Adjustable day/night threshold between 10 and 400 lux.	
Integrated temperature sensor.	
Short-circuit protection.	
Reverse-polarity and transient overvoltage protections.	
RS-232 serial port for setting adjustments by PC.	
LED diode failure detection.	

Materials and environment	
Lantern:	L6063 aluminium with 70 µm hard anodized coat.
Lens cover:	Acrylic, UV stabilised.
Watertightness degree:	IP 68.
Fixings:	3 - 4 bolts in a 200mm diameter.
Humidity resistance:	100%. Pressure-compensation valve to avoid condensation.

ATEX Certification	
Group II: Equipment in surface (no mining).	
Zone 1: Category 2.	
Atmosphere: GAS.	

Standards and Methods of Protection	
General requirements: EN 60079-0 Standard.	
Equipment protection by Increased Safety: "e", EN 60079-7 Standard.	
Equipment protection by Encapsulation: "mb", EN 60079-18 Standard.	
Equipment protection by Intrinsic Safety: "ib", EN 60079-11 Standard.	
Temperature Class: T4. 135°C.	
Protection against Gas: (G).	

Options	
Other specifications available under request.	

MBL 160-Ex	VERTICAL DIVERGENCE 5° PEAK INTENSITIES (Cd)		
	6W	12W	18W
White	537	1,010	1,515
Green	439	681	1,022
Red	380	590	895
Amber	564	662	993



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