



HIGH-RESISTANCE LED MARINE LANTERN

MBL 160-HR



The MBL 160-HR is a LED flashing beacon 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 13 nautical miles.

It is our heaviest duty lantern, able to withstand continuously the most extreme conditions, both environmental (ice, immersion,...) and mechanical ones (shocks and vibrations).

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. Manufactured with high-quality and resistant materials, the MBL 160-HR provides a long service life under the harshest marine conditions.

Designed according to IALA Recommendations.

FEATURES

- ✓ Lantern made from marine aluminium with highest-resistance reinforced methacrylate, tested according to MIL-STD-202G Standard.
- ✓ IP 68 watertightness degree (immersion resistant).
- ✓ Average operation lifetime over 15 years.
- ✓ Vertical divergence up to 30°.
- ✓ High-efficiency luminous system.
Up to 9 nm (T=0.74), 13 nm (T=0.85).
- ✓ 360° horizontal output.
- ✓ Linear adjustment of luminous intensity.
- ✓ Programming, configuration and operating status via PC, IR programmer or Bluetooth.
- ✓ Ready to integrate remote monitoring via GSM, VHF or satellite, synchronization via GPS or AIS AtoN module.
- ✓ Short-circuit, reverse-polarity and transient over-voltage protections.
- ✓ **PATENTED OPTICAL SYSTEM.**

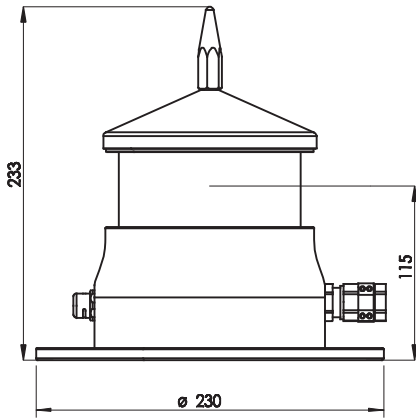


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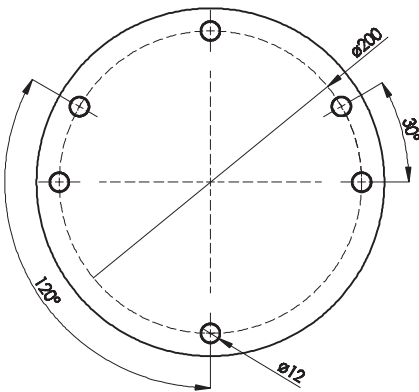
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Specifications subject to change without previous notice.



MBL 160-HR of 1 level.



Options

- Infrared (IR) programmer.
- PC programming kit.
- RS-485 MODBUS serial port.
- Other specifications available under request.
- MBL 160-HR-HD (up to 30° divergence).
- MBL 160-HR-SYNC (GPS synchronisation).
- MBL 160-HR-TG (GSM remote monitoring).
- MBL 160-HR-TR (Radio remote monitoring).
- MBL 160-HR-TS (Satellite remote monitoring).
- MBL 160-HR-AIS (AIS AtoN).

Optical System	
Light source:	3 to 6 nos. ultra-bright LED diodes, with high-precision acrylic lens.
Luminous range:	Up to 9 nm (T=0.74) 13 nm (T=0.85).
Colours available:	White, green, red, amber and blue.
Vertical divergence:	From 5° to 30° (50% lo).
LED average life:	More than 100,000 hours.
Power supply:	From 9 to 36V.
Lantern consumption:	From 3 to 12W.
Idle current:	2 mA.

Electronic control	
Flash rhythms:	256 (6 nos. user selectable).
Day/night threshold:	Adjustable between 10 and 400 lux.
Solar charge regulation function:	Regulation in 3 phases.
Settings:	PC / IR programmer / Bluetooth.
Luminous intensity adjustment:	Linear, between 10 and 100%.
Light intensity reduction due to low battery:	Configurable by the user.

Materials and environment	
Lantern:	Marine grade aluminium.
Lens cover:	Reinforced methacrylate, UV stabilised.
Vibration resistance:	MIL-STD-202G, Method 204D (5G).
Shock resistance:	MIL-STD-202G, Method 213B.
Watertightness degree:	IP 68.
Fixings:	3 - 4 bolts in a 200mm diameter.
Humidity resistance:	100%. Pressure-compensation valve to avoid condensation.
Temperature range:	From -40° to 70°C.

MBL 160-HR	PEAK INTENSITIES (Cd)			
	VERTICAL DIVERGENCE 5°		VERTICAL DIVERGENCE 12°	
COLOUR	6W	12W	6W	12W
White	537	1,010	338	676
Green	439	681	290	580
Red	380	550	204	408
Amber	564	662	235	470

Other divergences available.



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