

MEL 500L

High-resolution LED Sector
Light



The MEL 500L Port Entry Light (PEL) is a sector leading light of maximum resolution between its colour sectors, made up of a LED light source, able to provide a day range of up to 5 nm and a nominal night range of 23 nm.

The main advantage of this beacon is its accuracy between its colour sector boundaries ($<0.05^\circ$). Light emission generates an unidirectional beam in three colours, with a horizontal divergence between 1° and 15° . Colour sector configuration is expressly done for every case. The use of high-intensity LED diodes ensures minimum consumption, maintenance free.

MEL 500L light is designed according to IALA Recommendations and Guidelines, providing a great aid to the navigator to know its position in the channel. As an option, it can be delivered with oscillating boundaries, thus offering accurate information on his lateral distance from the leading axis.

Features:

- State-of-the-art LED technology.
- Custom-made configurable colour sectors, maximum definition between its boundaries ($<0.05^\circ$).
- High-efficiency luminous system of minimum consumption (70W), stabilised against vibrations.
- Day range up to 5 nm.
- Nominal night range up to 23 nm ($T=0.74$).
- Beam width: from 1° to 15° .
- Average operation lifetime over 25 years.
- Stainless-steel and marine-aluminium housing, with polyurethane finishing.
- Double RS-232 serial port for setting adjustments by PC and remote monitoring system.
- Anti-humidity device to avoid condensation.
- Oscillating boundaries as an option.
- Easy alignment by gunsight.

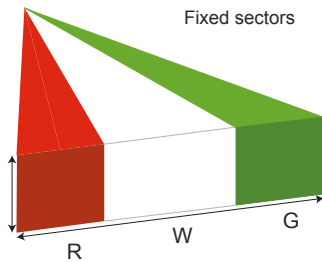
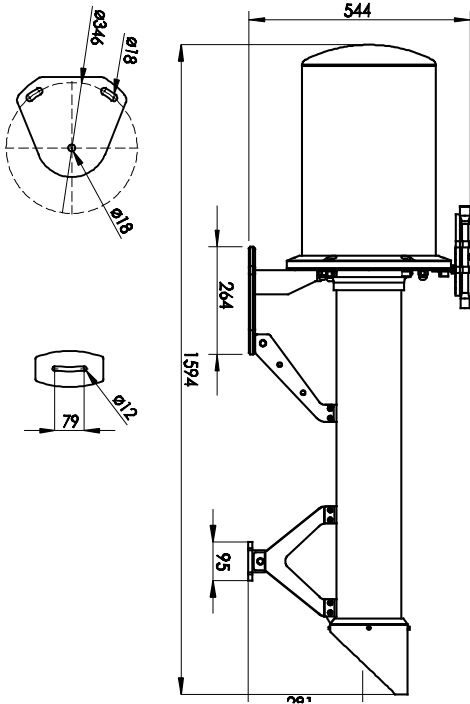


Leading & Range Lights

High-resolution LED Sector Light

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Specifications subject to change without previous notice.



Fixed sectors



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Optical system

Light source:	3 nos. high-intensity LED diodes.
Lens:	Glass aspheric condenser.
Day range:	Up to 5 nm.
Nominal night range:	Up to 23 nm (T=0.74).
Power supply:	Up to 70W.
Sector accuracy:	< 0.05°.
Beam width:	From 1° to 15°.
Colour sectors:	Custom-made.
LED average life:	More than 100,000 hours.

Options

A.c. operation.
Programmable by IR programmer.
Synchronization by cable or GPS receiver.
Remote monitoring module via GSM, radio or satellite.
RS-485 MODBUS serial port.
MEL 500L-Osc (with Oscillating Boundaries).

Materials and environment

Stainless-steel and marine-aluminium housing.
Outer painting with polyurethane finishing.
Inner painting resistant to high temperatures.
Easy alignment gunsight.
Eyeshade to avoid reflections.
Stainless-steel fixing and levelling kit.
Watertightness degree: IP 66.
Temperature range: from -30° to 70°C.

Electronic control

Circuit:	Microprocessor controlled.
Settings:	By microswitches or PC.
Input voltage:	From 9 to 36V d.c.
Day/night threshold:	Adjustable between 10 and 400 lux.
Power supply:	Individual for each LED.
Automatic & programmable luminous intensity reduction at night.	
Reverse-polarity, short-circuit, over-temperature and transient over-voltage protections.	

Oscillating boundaries

FI R Isolated flashes RED	R Fixed light RED	Alt R/W Alternate flashes RED/ WHITE	W Fixed light WHITE	Alt G/W Alternate flashes GREEN/ WHITE	G Fixed light GREEN	FI G Isolated flashes GREEN

Peak intensities

Colour	Horizontal divergence (°) 70W LED source			Horizontal divergence (°) 5% night reduction		
	3°	7°	10°-15°	3°	7°	10°-15°
White	320,000	200,000	82,000	19,500	10,000	4,100
Green	114,500	90,000	38,500	5,720	4,500	1,925
Red	195,000	112,000	50,000	9,750	5,600	2,500

(*) Other custom-made divergences under request.

Physical data

	3°	7°	10°-15°
Length (mm)	2,622	1,594	946
Width (mm)	404	404	404
Height (mm)	544	544	544