

Medium-Intensity Red Obstruction Light

FAA L-864, L-885

OBELUX
AVIATION LIGHTS

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Optical characteristics

- ▶ 2 000 cd
- ▶ color aviation RED
- ▶ NVG compliant infrared (850nm)
- ▶ Horizontal beam 360°
- ▶ Vertical beam > 3°



Medium-Intensity Red Obstruction Light

LED Aviation Obstruction Lights

Obelux medium-intensity stand-alone red 2 000 cd model is used for marking tall structures, such as wind turbines, transmission masts, chimneys, broadcast masts, bridges, etc. It is designed for demanding offshore conditions, for instance for use in offshore wind turbines. The product offers unique features such as integrated fault monitoring, photocell, GPS synchronization and cold climate version. It supports both stand-alone and RS-485 Modbus operation as a part of Obelux aviation light system network.

Specifications met

FAA Advisory Circular
AC 150/5345-43J:
Specification for Obstruction Lighting
Equipment, 3/11/2019
FAA L-864, L-885

CASA Australia
Part 139, Chapter 9.33 from 13 March
2024, Characteristics of medium-
intensity obstacle lights

Key Features

- ▶ Based on LED technology
- ▶ 2 000 cd RED flashing
- ▶ Supports both stand-alone and RS-485 Modbus operations
- ▶ Suitable for Offshore environment
- ▶ Built-in GPS synchronisation, photocell, and fault monitoring
- ▶ Built-in cold climate version (CCV), i.e. temperature-controlled smart heater
- ▶ Dry contact alarm relay
- ▶ Visibility sensor interface controlled luminous output levels 10%, 30%, and 100%
- ▶ Hot start feature for radar-controlled systems
- ▶ Easy to chain (no need for junction box)
- ▶ Embedded Web Server
- ▶ Design lifetime more than 20 years
- ▶ 5-year warranty (option for 10 years, longest in the industry)

Electrical Characteristics

- ▶ Operating voltage (AC):
Nominal 100-240V_{AC} ± 10%, 50Hz / 60Hz ± 6%
- ▶ Operating voltage (DC): 10-30 V_{DC} and 20-60 V_{DC}
- ▶ Flash rates: 20/30/40/60 fpm
- ▶ Meets standards
 - EMC (Emissions): EN 61000-6-4
 - EMC (Immunity): EN 61000-6-2
- ▶ Overvoltage protection Type 2
(varistors between L – PE, N – PE and L – N)
- ▶ Alarm relay output NO/NC dry contact
Switch voltage / max current: 50 V_{DC} / 1 A, 250 V_{AC} / 6A
- ▶ Modbus RS-485 isolated

Power Consumption

- ▶ Power consumption for AC/DC versions (excluding heater consumption):
 - 11W @ Night (RED+IR, 30 fpm)
 - 21W @ Night (RED+IR, 60 fpm)

Recommended Cables:

- ▶ Power (L-N-PE): 3x1,5mm² or 3x2,5mm² shielded
- ▶ Power + Data/ Relay: 6x1,5mm² or 6x2,5mm² shielded

Smart Heater

- ▶ 15W, thermostat controlled, used in cold climates
- ▶ Prolongs the life of the obstruction light
- ▶ Input voltage monitoring for DC models: heater will be turned off, if battery voltage drops below a threshold voltage (can be adjusted in the settings)

Mechanical Characteristics

- ▶ Anodized, marine grade aluminum body and end parts
- ▶ AISI 316 acid-proof stainless-steel screws
- ▶ Glass dome
- ▶ Degree of protection IP66
- ▶ Operating temperature range -40...+55 °C
- ▶ Storage temperature range -40...+55 °C
- ▶ Height 347 mm, width 180 mm, depth 160 mm
- ▶ Weight 4,3 kg (without mounting set)
- ▶ Cable glands:
2 x M25 for Ø11-17 mm cables (Ø6-13 rubber incl.)
2 x M20 for Ø6-12 mm cables
- ▶ Easy to chain via Data cable and via Power cable (no need for junction box)

Options

- ▶ Add-on cards (see order code selection)
 - 4 Input and 4 Output (IO) interface
 - Ethernet interface (1 x RJ-45)
 - 4-port Ethernet switch (2 x RJ-45, 2 x Fiber)
- ▶ 10-year warranty (see order code section)
- ▶ Mounting sets (see appendix A)
- ▶ Optional controllers:
 - CP-series (Ethernet TCP/IP, RS-485 Modbus)
 - CP-M1-series (RS-485 Modbus)

Order code:	Output:	FAA:	Operating voltage:	Nominal voltage:	GPS:	Infrared:	CCV:	Photocell and Fault monitoring:	RS-485 Modbus:
MI-FAA-AC[-x][-y]	2 000 cd	L-864, L-885	90-265 V _{AC}	100-240 V _{AC}	Yes	Yes	Yes	Yes	Yes
MI-FAA-AC-B[-x][-y]	2 000 cd	L-864, L-885	90-265 V _{AC}	100-240 V _{AC}	No	Yes	Yes	Yes	No
MI-FAA-DC1224[-x][-y]	2 000 cd	L-864, L-885	10-30 V _{DC}	12/24 V _{DC}	Yes	Yes	Yes	Yes	Yes
MI-FAA-DC1224-B[-x][-y]	2 000 cd	L-864, L-885	10-30 V _{DC}	12/24 V _{DC}	No	Yes	Yes	Yes	No
MI-FAA-DC2448[-x][-y]	2 000 cd	L-864, L-885	20-60 V _{DC}	48 V _{DC}	Yes	Yes	Yes	Yes	Yes
MI-FAA-DC2448-B[-x][-y]	2 000 cd	L-864, L-885	20-60 V _{DC}	48 V _{DC}	No	Yes	Yes	Yes	No

B = Basic model (no GPS, no Modbus)

[-x]: Optional add-on card

-IO = 4 Input 4 Output (IO) interface

-E = Ethernet interface (1 x RJ45 connector)

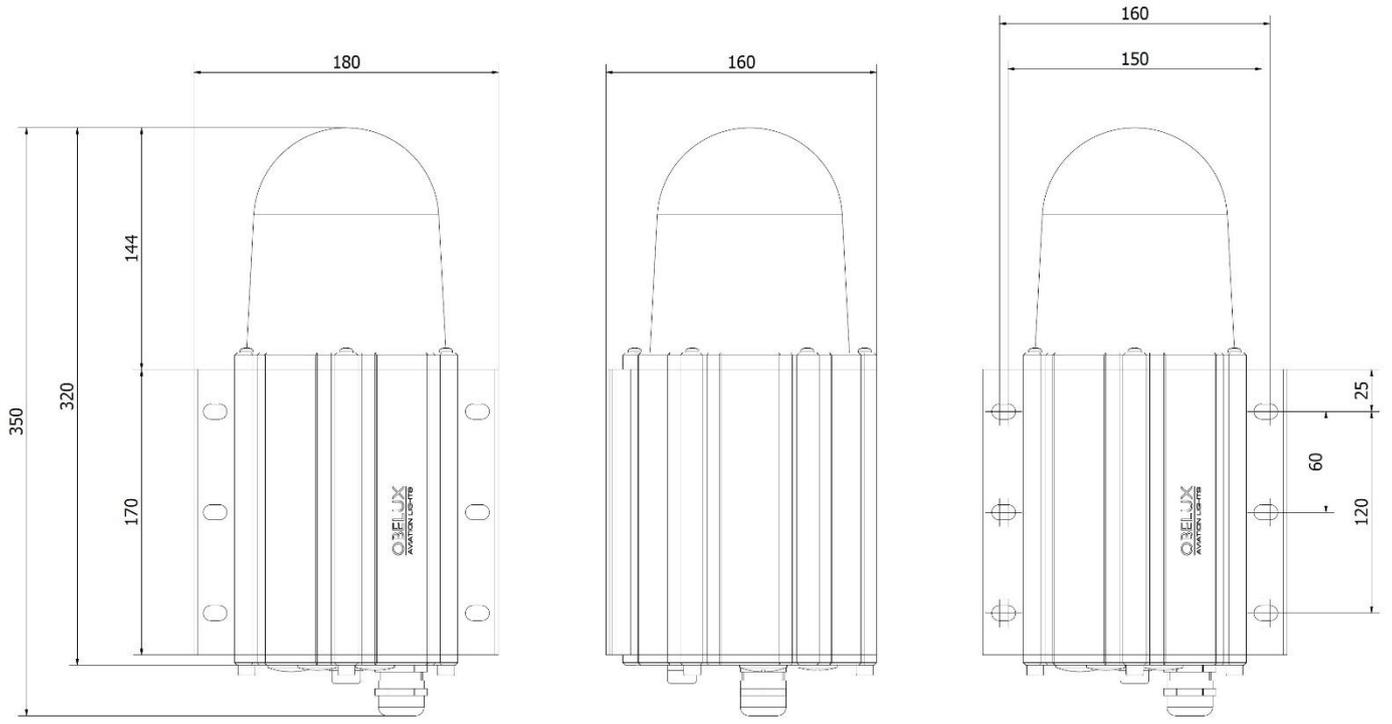
-EF = 4-port switch (2 x RJ-45 connectors + 2 x Fiber SC Multimode female connectors)

Example: MI-FAA-AC-IO (AC model with IO add-on card)

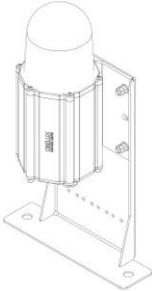
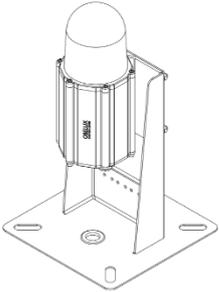
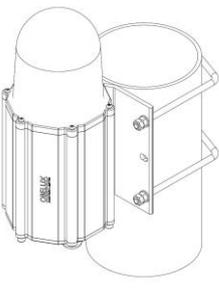
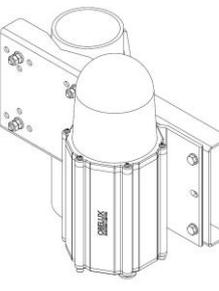
[-y]: Warranty option

-10 = 10-year warranty

Example: MI-FAA-AC-10 (AC model with 10-year warranty)



Appendix A: Available mounting sets

	<p>Obelux MS-MI-H01/02:</p> <ul style="list-style-type: none"> ▶ Mounting set for horizontal plane mounting. ▶ Mounting set includes bracket and fasteners. ▶ Mounting bracket AISI 304 stainless steel or AISI 316 acid-proof steel, other parts AISI 316 acid-proof steel. <p>More detailed mechanical data: see MS-MI-H01/02 datasheet.</p>
<p>▶ Order Code: MS-MI-H01 (AISI 304 stainless steel bracket)</p> <p>▶ Order Code: MS-MI-H02 (AISI 316 acid-proof steel bracket)</p>	
	<p>Obelux MS-MI-H03:</p> <ul style="list-style-type: none"> ▶ Mounting set for horizontal plane mounting. ▶ Mounting set includes bracket and fasteners. ▶ All parts AISI 316 acid-proof steel. <p>More detailed mechanical data: see MS-MI-H03 datasheet.</p>
<p>▶ Order Code: MS-MI-H03</p>	
	<p>Obelux MS-MI-V01:</p> <ul style="list-style-type: none"> ▶ Mounting set for vertical pipe mounting. ▶ Mounting set includes U-bolts and fasteners. ▶ All parts AISI 316 acid-proof steel. <p>More detailed mechanical data: see MS-MI-V01 datasheet.</p>
<p>▶ Order Code: MS-MI-V01</p>	
	<p>Obelux MS-MI-V02:</p> <ul style="list-style-type: none"> ▶ Mounting set for vertical pipe mounting. ▶ Mounting set includes bracket, U-bolts, and fasteners. ▶ Mounting bracket AISI 304 stainless steel, other parts AISI 316 acid-proof steel. <p>More detailed mechanical data: see MS-MI-V02 datasheet.</p>
<p>▶ Order Code: MS-MI-V02</p>	