

DATASHEET

Low-Intensity SAL Series

CASA Manual of Standards Part 139
100 cd OBSTRUCTION LIGHT

OBELUX
AVIATION LIGHTS

Obelux Oy, Kutumotie 6 B, 00380 Helsinki FINLAND | The information in this document is subject to change without notice. © Obelux Oy 2015

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Optical characteristics

- ▶ 100 cd fixed or flashing
- ▶ Colour aviation RED
- ▶ Horizontal beam 360°
- ▶ Vertical beam spread 10°
- ▶ Vertical distribution with 100 cd (min.) at +6° and +10° above the horizontal
- ▶ Vertical distribution 10 cd (min.) at all elevation angles between -3° ... +90° above the horizontal

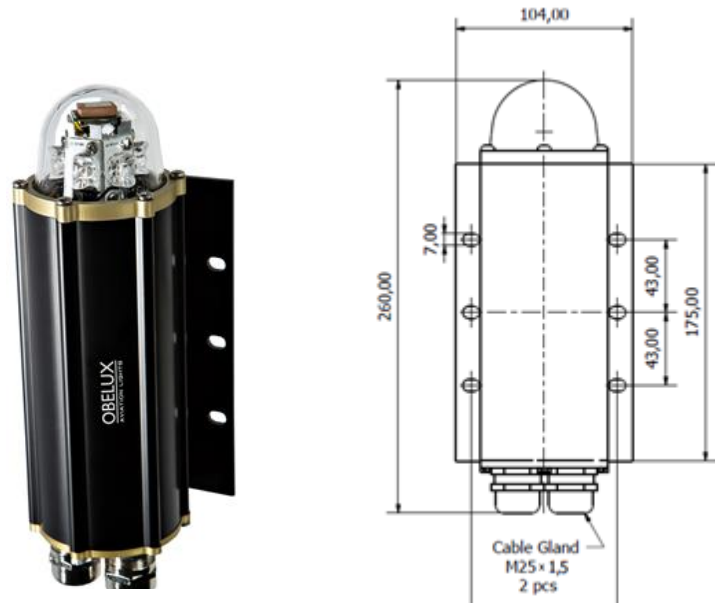


Photo only for illustration.

Low-Intensity 100 cd Stand-alone Series

LED Aviation Obstruction Lights

Obelux low-intensity stand-alone series is designed for marking tall structures such as wind turbines, chimneys, masts, and towers. The product offers unique features such as fault monitoring, photocell and switcher incorporated in the light.

Design to meet

The Civil Aviation Safety Authority (CASA) of Australian Government: Manual of Standards, Part 139 - Chapter 9.4.6 (Characteristics of Low Intensity Obstacle Lights)

(AUSTRALIA)

Key Features

- ▶ Based on LED-technology
- ▶ 100 cd RED fixed and flashing light
- ▶ Incorporated photocell and fault monitoring
- ▶ Extremely low-power consumption
- ▶ More than 10 years of maintenance free operating time
- ▶ 5 year warranty- the longest in the industry
- ▶ 10 years warranty for the optics!
- ▶ Communication Modbus RS-485 (LI-xxx-xxx-I)

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Electrical Characteristics

- ▶ ACW- models, wide AC voltage range:
Nominal 100...240 V_{AC}, Nominal 50 ... 60 Hz
- ▶ DCW- models, wide DC voltage range:
Nominal 10...60 V_{DC}
- ▶ Overvoltage protection
- ▶ Constant power input by active PFC
- ▶ Day/Night switch (400/800/1600lux)
- ▶ Flash rates: 20/40/60fpm
- ▶ Power consumption 7 W (11 VA)

Mechanical Characteristics

- ▶ Anodized, marine grade aluminium body and end parts
- ▶ AISI 316 acid-proof stainless steel screws
- ▶ Glass cover, degree of protection IP65
- ▶ Operating temperature range -40...+55 °C
- ▶ Height 255 mm, diameter 104 mm
- ▶ Weight 1,3 kg (without mounting set)
- ▶ Terminal block for 1.5 ... 4 mm² wires

Mounting Set Options

- ▶ MS-HV80
- ▶ MS-EV60
- ▶ MS-EV100
- ▶ MS-EV150
- ▶ MS-DEV60
- ▶ MS-DEV100
- ▶ MS-RW
- ▶ MS-LVU
- ▶ MS-N1B



Order code		Output	Op. volt.	Power cons.	Fault monitoring	Built-in photocell	Packing dimensions
LI-100-DCW-A	CASA 139	100 cd	16-60 V _{DC}	7 W	Yes	Yes	280x130x100, 1,5kg
LI-100-ACW-A	CASA 139	100 cd	100-240 V _{AC}	7 VA	Yes	Yes	280x130x100, 1,5kg
LI-100-DCW-I	CASA 139	100 cd	16-60 V _{DC}	7 W	Data RS-485	Yes	280x130x100, 1,5kg
LI-100-ACW-I	CASA 139	100 cd	100-240 V _{AC}	7 VA	Data RS-485	Yes	280x130x100, 1,5kg

Mounting sets

MS-HV80	Mounting set, basic model for 33 to 80 mm pipes
MS-EV60	Mounting set with extension plate for 30 to 60 mm pipes
MS-EV100	Mounting set with extension plate for 60 to 100 mm pipes
MS-EV150	Mounting set with extension plate for 100 to 150 mm pipes
MS-DEV60	Mounting set for double lights with extension plate for 30 to 60 mm pipes
MS-DEV100	Mounting set for double lights with extension plate for 60 to 100 mm pipes
MS-RW	Mounting set with extension plate for roof or wall mounting
MS-LVU	Mounting set with extension plate for L, V, and U-profiles, galvanized
MS-N1B	Mounting set with 1" NPT at bottom

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Installation specifications

- ▶ Cable gland M25
- ▶ Cable diameter 11 to 17 mm (includes cable gland seal 6-13mm)
- ▶ Wire diameter max. 6 mm²
- ▶ Recommended cable
- ▶ 3x1.5 mm² or 3x2.5 mm²

Options

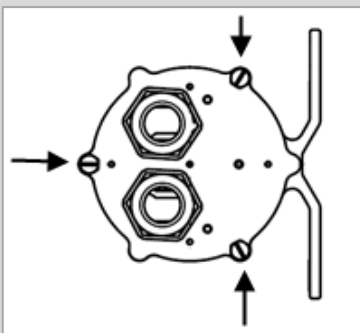
- ▶ C CGS-20 smaller cable glands set (includes 2pcs M20 cable glands with M25-M20 adapters for 7-13 mm cables)

Electrical installation instructions

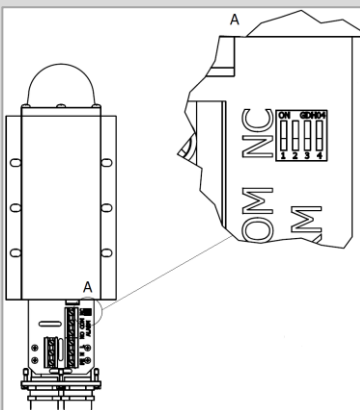
Obelux LI SAL Series have two cable glands for easy chaining without external distribution boxes. Connection can be protected with a 6A or 10A fuse or with a circuit breaker (C curve: C6A or C10A).

Configuring Obelux LI SAL Series

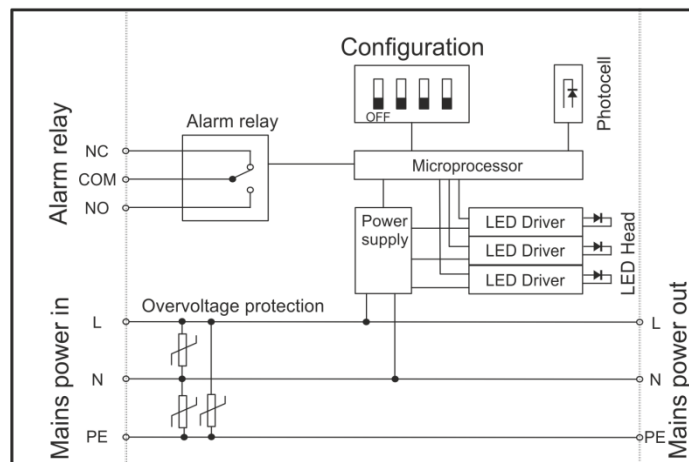
Photocell mode (enabled/disabled) and threshold (400 lux, 800 lux or 1600 lux) can be selected by the user using DIP configuration switches. Open three screws on the bottom of Obelux light to gain access to DIP switches. We recommend using a socket wrench but the screws can also be opened with a suitable flat-head screwdriver. Holding the aviation obstacle light glass dome pointing upwards, the individual DIP switches are numbered 1-4 from left to right.



1. Bottom plate screws



2. Location of DIP switches



3. Block diagram of Obelux LI-xxx-xxx-A stand-alone light.

DIP Switch Settings–Photocell mode			DIP Switch Settings–Flash mode		
1	2	Operating mode	3	4	Operating mode
OFF	OFF	Photocell disabled	OFF	OFF	Steady-burning i.e.fixed
ON	OFF	400 lx	ON	OFF	20 flashes per minute
OFF	ON	800 lx	OFF	ON	40 flashes per minute
ON	ON	1600 lx	ON	ON	60 flashes per minute

Factory default setting is all switches in OFF (steady-burning mode without photocell control). Turn-off time in 3 min, turn-on time is 10 sec. When the photocell operation is enabled, the obstruction light turns on when the ambient light level has dropped below selected level for ten seconds. Light turns off when the ambient light level has exceeded the selected value for more than three minutes

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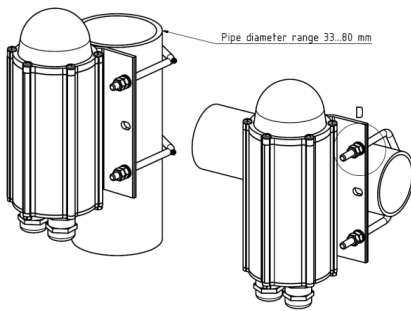
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Obelux MS-HV80

Mounting set for 33-80 mm vertical or horizontal pipe.

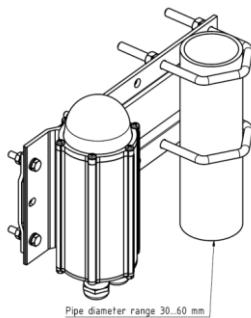
This mounting set includes:

- ▶ 2 pcs M6 U-bolt
- ▶ 8 pcs M6 hex nut
- ▶ 4 pcs 6/12 mm washer

All parts are AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-HV80 datasheet

▶ Order Code MS-HV80



Obelux MS-EV60

Mounting set with extension plate for 30-60 mm vertical pipe installation.

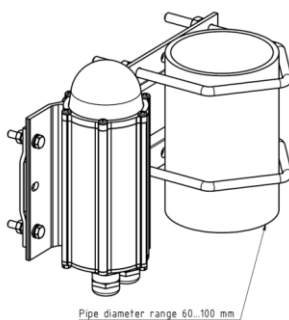
This mounting set includes:

- ▶ 2 pcs M8 U-bolt, 8 pcs M8 hex nut
- ▶ 4 pcs M6x30 bolt, 8 pcs M6 hex nut, 4 pcs 6/12 washer
- ▶ 1 pcs extension plate

Extension plate marine grade anodized aluminium, other parts AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-EV60 datasheet

▶ Order Code: MS-EV60



Obelux MS-EV100

Mounting set with extension plate for 60-100 mm vertical pipe installation.

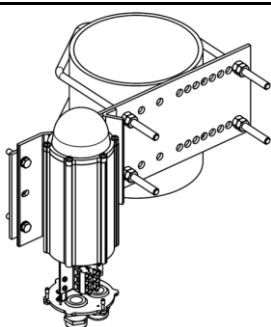
This mounting set includes:

- ▶ 2 pcs M8 U-bolt, 8 pcs M8 hex nut
- ▶ 4 pcs M6x30 bolt, 8 pcs M6 hex nut, 4 pcs 6/12 washer
- ▶ 1 pcs extension plate

Extension plate marine grade anodized aluminium, other parts AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-EV100 datasheet

▶ Order Code: MS-EV100



Obelux MS-EV150

Mounting set with extension plate for 100-150 mm vertical pipe installation.

This mounting set includes:

- ▶ 2 pcs M8 U-bolt, 8 pcs M8 hex nut
- ▶ 4 pcs M6x30 bolt, 8 pcs M6 hex nut, 4 pcs 6/12 washer
- ▶ 1 pcs extension plate

Extension plate hot dipped galvanised steel, other parts AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-EV150 datasheet

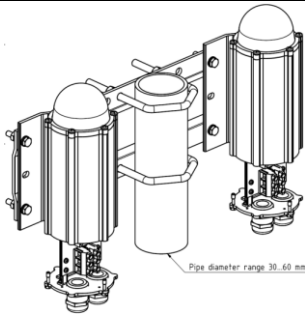
▶ Order Code: MS-EV150

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Obelux MS-DEV60

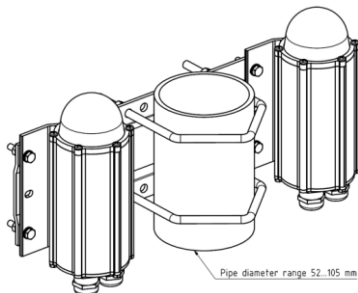
Double mounting set with extension plate for 30-60 mm vertical pipe installation. Mounting set include:

- ▶ 2 pcs M8 U-bolt, 8 pcs M8 hex nut
- ▶ 8 pcs M6x30 bolt, 16 pcs M6 hex nut, 8 pcs 6/12 washer
- ▶ 1 pcs extension plate

Extension plate marine grade anodised aluminium, other parts AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-DEV60 datasheet

▶ Order Code: MS-DEV60



Obelux MS-DEV100

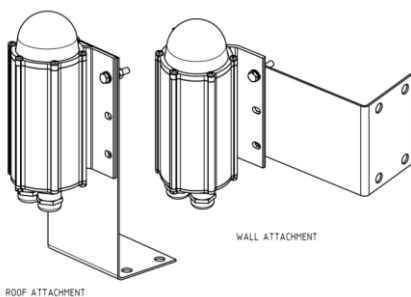
Double mounting set with extension plate for 60-100 mm vertical pipe installation. Mounting set include:

- ▶ 2 pcs M8 U-bolt, 8 pcs M8 hex nut
- ▶ 8 pcs M6x30 bolt, 16 pcs M6 hex nut, 8 pcs 6/12 washer
- ▶ 1 pcs extension plate

Extension plate marine grade anodised aluminium, other parts AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-DEV100 datasheet

▶ Order Code: MS-DEV100



Obelux MS-RW

Mounting set for horizontal plate or wall installation.

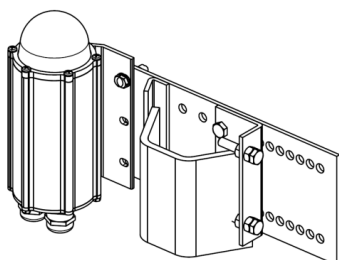
Mounting set includes:

- ▶ 4 pcs M6x30 bolt, 8 pcs M6 hex nut, 4 pcs 6/12 washer
- ▶ 1 pcs L-shape 2 mm plate

All parts AISI 316 acid-proof stainless steel.

More detailed mechanical data: see MS-RW datasheet

▶ Order Code: MS-RW



Obelux MS-LVU

Mounting set for L and V -shape profiles

Mounting set includes:

- ▶ 1 set accessories for light unit fitting to plate
- ▶ 1 pcs extension plate with adjusting plate and accessories

Extension plate hot dip galvanized steel, other parts AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-LVU datasheet

▶ Order Code: MS-LVU (with galvanized extension plate)

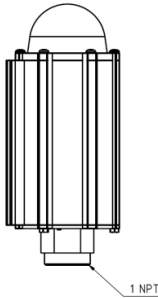
▶ Order Code: MS-LVA (with AISI316 extension plate)

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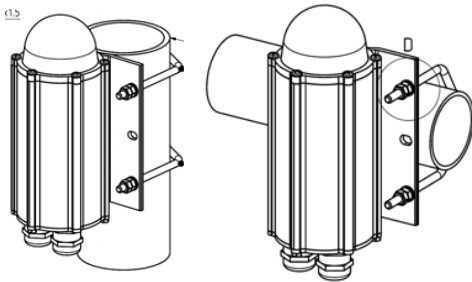


Obelux MS-N1B :

Mounting set for 1" NPT at bottom

More detailed mechanical dimensions: see MS-N1B datasheet.

► Order Code: MS-N1B



Obelux MS-HV80 :

Mounting set for 33 – 80 mm vertical or horizontal pipe.

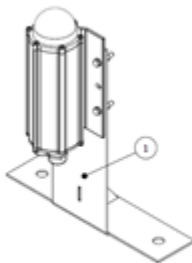
Mounting set include:

- 2 pcs M6 U-bolt
- 8 pcs M6 hex nut
- 4 pcs 6/12 mm washer

All parts AISI 316 acid proof steel

More detailed mechanical data: MS-HV80 datasheet

► Order Code: MS-HV80



Obelux MS-WT5:

Mounting set for LI series

Mounting holes 2 x Ø17, 240mm.

► Order Code: MS-WT5