Photocell and GPS PC-AC / PC-DC

Day/night switching with photocell
GPS (GAM models)
Modbus via isolated RS-485
AC 100–250 V / DC 10–60 V

OBELUX AVIATION LIGHTS

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Functions

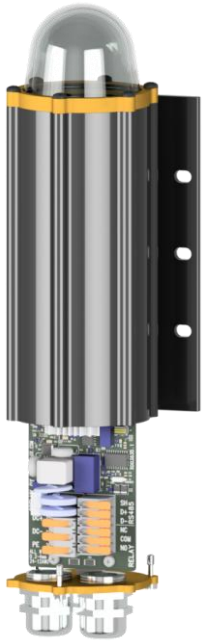
- Photocell for day/night detection and switching
- GPS (GAM models)
- Modbus operation via isolated RS-485
- Alarm relay output
- Thermostat-controlled heater
- Smart heater (DC models, battery-powered operation)

Compatible controllers

- CP Series
- CP-M1 Series

Mounting set options

- MS-HV80
- MS-EV60
- MS-EV100
- MS-EV150
- MS-DEV60
- MS-DEV100
- MS-RW
- MS-LVU / MS-LVA
- MS-WT5



Photocell and GPS unit
(photo for illustration only)

Photocell and GPS

The Obelux Photocell and GPS unit is an accessory for Obelux LED aviation obstruction light systems. It provides photocell-based day/night switching and, in GAM models, GPS.

The unit is connected to the Obelux aviation light system through a Modbus serial line (isolated RS-485). It is available for AC (100–250 VAC) and DC (10–60 VDC) power supply.

Key Features

- Photocell for day/night switching
- GPS (GAM models)
- Modbus operation
- Extremely low power consumption (0.3–0.5 VA / W)
- Long maintenance-free operating time
- Thermostat-controlled heater; smart heater in DC models for battery-powered operation
- AC (100–250 VAC) and DC (10–60 VDC) models
- IP65 as standard, IP67 optional
- 5-year warranty, optional 10-year warranty

Electrical Characteristics

Power Supply:

- AC models: 100–250 V_{AC}, 50–60 Hz
- DC models: 10–60 V_{DC}
- Power consumption 0.3–0.5 VA (AC) / 0.3–0.5 W (DC), see Product codes
- Robust overvoltage protection (Type II)

Interfaces:

- Isolated RS-485 (Modbus)
- Alarm relay output, maximum loads 250 V_{AC} @ 8 A; 50 V_{DC} @ 1 A

Heater:

- Thermostat-controlled heater, increases power consumption by 7 W
- Turns on when temperature drops below +10 °C; can be set ON/OFF
- Smart heater in DC models (battery-powered operation)

Mechanical & Environmental Characteristics

Mechanical Characteristics:

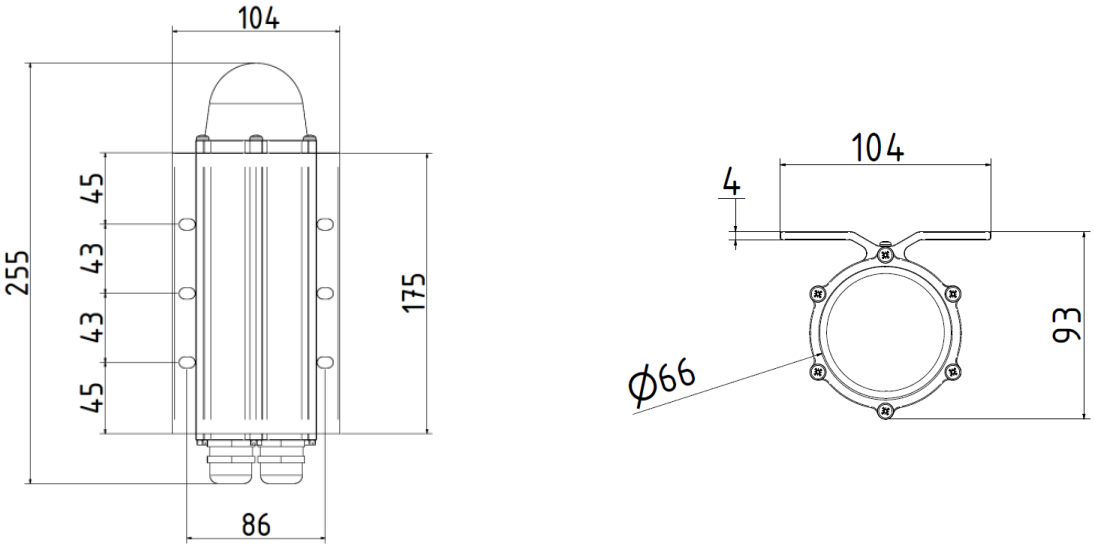
- Anodized, marine-grade aluminium body and end parts
- AISI316 acid-proof stainless steel screws
- Glass cover
- Height 255 mm, diameter 104 mm
- Weight 1.3 kg (without mounting set)
- Terminal blocks for 0.2…4 mm² (24–12 AWG) wires

Environmental Characteristics:

- Operating temperature range −40…+55 °C
- Degree of protection IP65 [1)]
- IP67 available for all models (append -67 to the product code)

[1)] IP65 applies when the device is mounted vertically, glass cover facing up.

Dimensions:

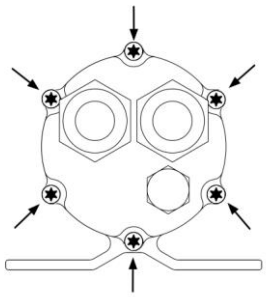


Dimensions in mm

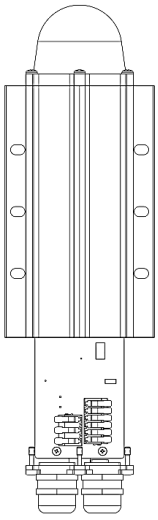
Installation and connections

Cabling specifications

- Cable gland M25
- Cable diameter 11–17 mm (includes cable gland seal 6–13 mm)
- Wire diameter max. 4 mm²
- Recommended cable 3 × 1.5 mm² or 3 × 2.5 mm²

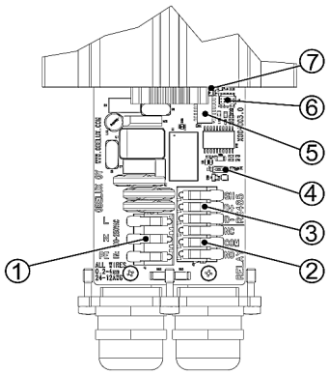


Back plate screws

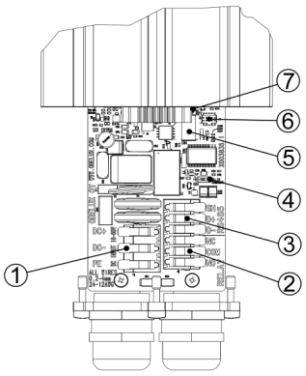


Unit opened up

Open the back plate screws. The bottom plate and the main circuit board slide out. Route power and data cables using the cable gland(s) on the back side of the unit. Connect the cable wires securely to the appropriate terminal block connectors. Slide the bottom plate properly into place and securely tighten all screws. Make sure that all unused glands or gland holes are sealed.



AC models



DC models

1 Power input – AC models

Mark	Description	Information
L	Live	Connect to power supply live terminal
N	Neutral	Connect to power supply neutral terminal
PE	Ground	Protective earth

1 Power input – DC models

Mark	Description	Information
DC+	Positive	Connect to power supply positive terminal
DC−	Negative	Connect to power supply negative terminal
PE	Ground	Protective earth

2 Alarm relay output

Mark	Description	Information
NO	Normally open	Relay contact, open in normal state
COM	Common	Relay common contact
NC	Normally closed	Relay contact, closed in normal state

3 RS-485 port

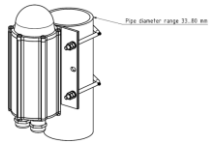
Mark	Description	Information
D+	Data+	RS-485 non-inverting pin
D−	Data−	RS-485 inverting pin
SH	Shield	Cable shield connection

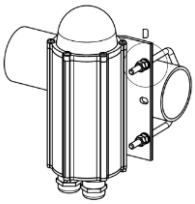
4 RS-485 termination DIP switch
5 Configuration DIP switches
6 Programming terminal
7 Reset button

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Mounting sets

Obelux MS-HV80





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

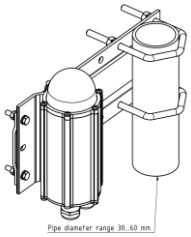
This mounting set includes:
- 2 pcs M6 U-bolt
- 8 pcs M6 hex nut
- 4 pcs 6/12 mm washer

All parts 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.

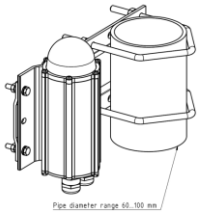
This mounting set includes:
- 2 pcs M8 U-bolt, 8 pcs M8 hex nut
- 4 pcs M6x30 bolt, 8 pcs M6 hex nut, 4 pcs 6/12 washer
- 1 pcs extension plate

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.

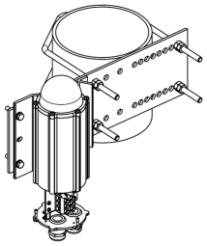
This mounting set includes:
- 2 pcs M8 U-bolt, 8 pcs M8 hex nut
- 4 pcs M6x30 bolt, 8 pcs M6 hex nut, 4 pcs 6/12 washer
- 1 pcs extension plate

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.

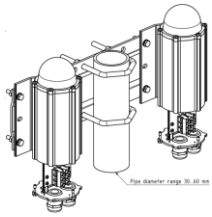
This mounting set includes:
- 2 pcs M8 U-bolt, 8 pcs M8 hex nut
- 4 pcs M6x30 bolt, 8 pcs M6 hex nut, 4 pcs 6/12 washer
- 1 pcs extension plate

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

More detailed mechanical data: see MS-EV150 datasheet.

► **Order code: MS-EV150**

Obelux MS-DEV60



Double mounting set with extension plate for 30–60 mm vertical pipe installation.

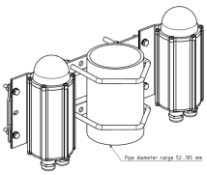
This mounting set includes:
- 2 pcs M8 U-bolt, 8 pcs M8 hex nut
- 8 pcs M6x30 bolt, 16 pcs M6 hex nut, 8 pcs 6/12 washer
- 1 pcs extension plate

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

More detailed mechanical data: see MS-DEV60 datasheet.

► **Order code: MS-DEV60**

Obelux MS-DEV100



Double 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
- 8 pcs M6x30 bolt, 16 pcs M6 hex nut, 8 pcs 6/12 washer
- 1 pcs extension plate

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

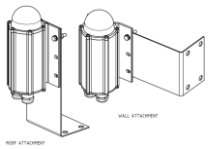
More detailed mechanical data: see MS-DEV100 datasheet.

► **Order code: MS-DEV100**

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Mounting sets (continued)

Obelux MS-RW



Mounting set for horizontal plate or wall installation.

This mounting set includes:

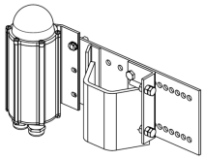
- 4 pcs M6x30 bolt, 8 pcs M6 hex nut, 4 pcs 6/12 washer
- 1 pcs L-shape 2 mm plate

All parts AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-RW datasheet.

► **Order code: MS-RW**

Obelux MS-LVU / MS-LVA



Mounting set for L- and V-shape profiles.

This mounting set includes:

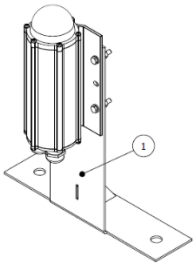
- 1 set accessories for fitting the unit to the plate
- 1 pcs extension plate with adjusting plate and accessories

Extension plate hot-dip galvanized steel (MS-LVU) or AISI316 (MS-LVA), other parts AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-LVU datasheet.

► **Order code: MS-LVU (galvanized extension plate)**
► **Order code: MS-LVA (AISI316 extension plate)**

Obelux MS-WT5



Mounting set for wind turbines.

Mounting holes 2 × Ø17 mm, 240 mm.

► **Order code: MS-WT5**

Product codes:

Order code	Operating voltage	Power consumption	Photocell	GPS	Modbus	Alarm relay	Heater [2]
PC-AC-AM [1]	100–250 V_{AC}	0.3 VA	Yes	No	Yes	Yes	Yes
PC-AC-GAM	100–250 V_{AC}	0.5 VA	Yes	Yes	Yes	Yes	Yes
PC-DC-AM [1]	10–60 V_{DC}	0.3 W	Yes	No	Yes	Yes	Yes
PC-DC-GAM	10–60 V_{DC}	0.5 W	Yes	Yes	Yes	Yes	Yes

[1] Basic version.

[2] Heater increases power consumption by 7 W; it turns on when the temperature drops below +10 °C and can be set ON/OFF.

IP65 applies when the device is mounted vertically, glass cover facing up.

All models are available with IP67 water protection class: append -67 to the product code (e.g. PC-AC-GAM-67).