DATASHEET

Low-Intensity 170cd German Series

W, Rot and W, Rot ES Low intensity 170cd

OBELUX AVIATION LIGHTS

Obelux Oy, Kutomotie 6 B, 00380 Helsinki FINLAND | The information in this document is subject to change without notice. © Obelux Oy 2016

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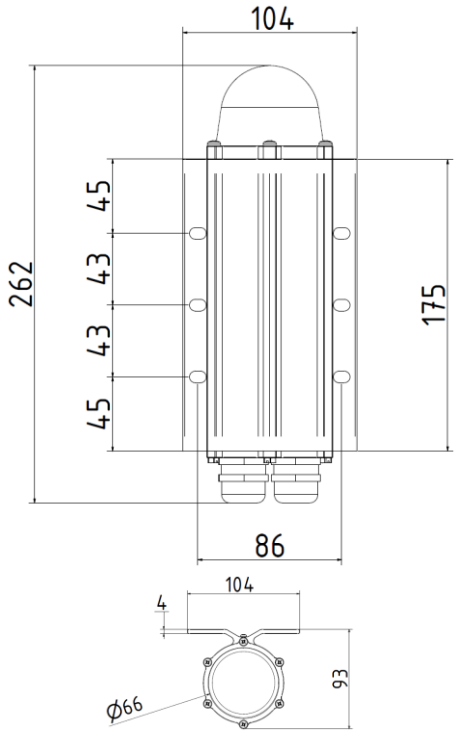
Optical characteristics

- 170cd (peak), 100cd (effective)
- Colour aviation RED
- Horizontal beam 360°
- Vertical beam (W, Rot ES)



Low-Intensity 170 cd Stand-alone Series, German model W, rot and W, rot ES model

LED Aviation Obstruction Lights

Obelux low-intensity stand-alone 170cd W, rot ES model is designed for wind turbines in the German market. The product offers unique features such as fault monitoring, photocell and switcher incorporated in the light.

Key Features

- Based on LED technology
- 170 cd (peak) RED flashing light (100 cd effective)
- German W, Rot flashing pattern
- Light intensity and vertical beam fulfilling W, Rot and W, Rot ES specifications
- Integrated GPS antenna for flash synchronization
- Incorporated photocell
- ModBUS communication with Obelux Local Controller (LC)
- More than 20 years of design lifetime
- 5-year warranty

Specifications

Einordnung als Feuer W, rot ES gemäß Allgemeine Verwaltungsvorschrift zur Kennzeichnung von Luftfahrthndernissen vom 26.08.2015

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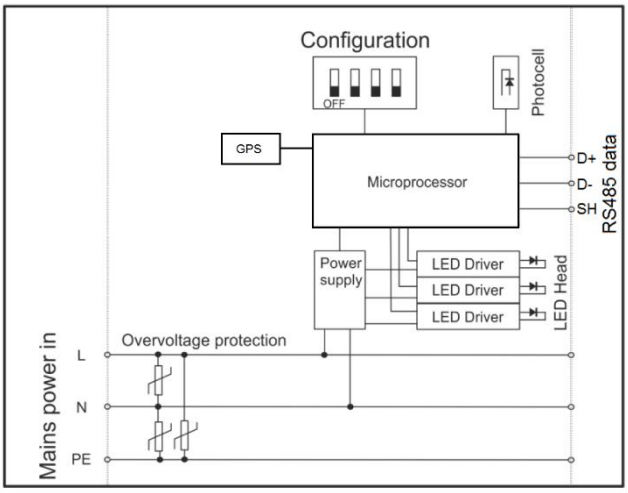
Electrical Characteristics

- DCW- models, wide DC voltage range: Nominal 10...60V_{DC}
- Overvoltage protection
- Constant power input by active PFC
- Power consumption 3,5W (average) 6W (peak)
- Integrated GPS antenna

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 262 mm, diameter 104 mm
- Weight 1,5 kg (without mounting set)
- Weight 3,5 kg (with horizontal mounting set)
- Terminal block for 1.5 ... 4 mm2 wires



1. Block diagram of Obelux LI light.

For illustration only

Order code	Output (peak)	Operating voltage	Power cons. (Avg.)	Fault monitoring	Built-in photocell	Packing dimensions
LI-170-WES-DCW-GI	170cd	10-60VDC	3,5 W	Yes	Yes	280x130x100, 1,5kg (450x320x240, 3,5kg with horizontal mounting set)

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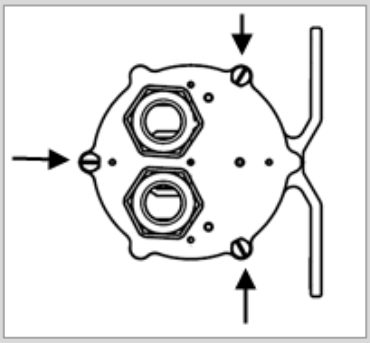
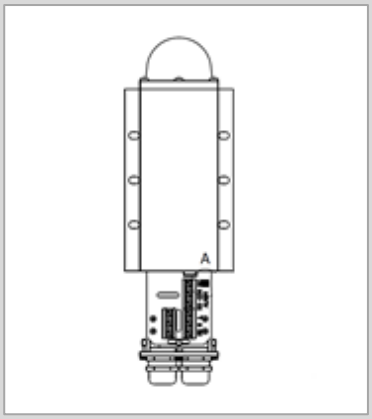
Installation specifications

- Cable gland M25
- Cable diameter 11 to 17 mm (includes cable gland seal 6-13mm)
- Wire diameter max. 6 mm^2
- Recommended cable
- 3x1.5 mm^2 or 3x2.5 mm^2



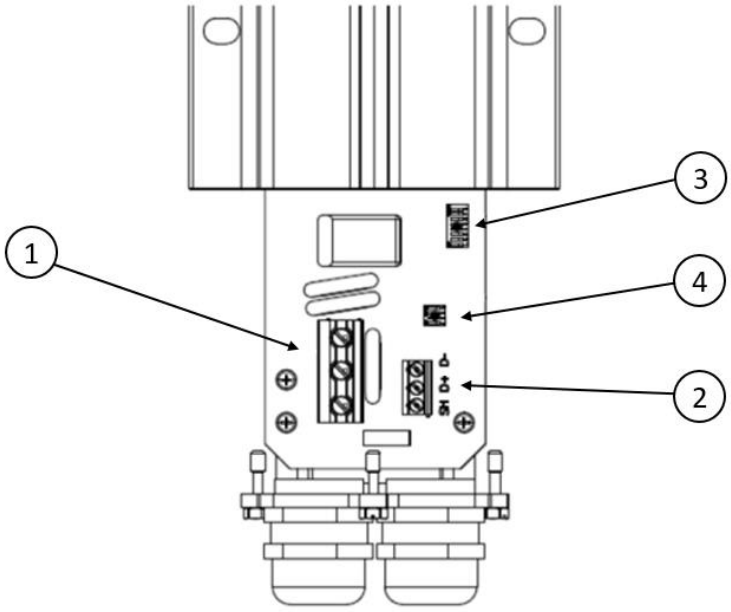
1. Bottom plate screws



2. Light unit opened up

Installation instructions

Open the three bottom plate screws. Bottom plate and the main circuit board slides out. Route power and data cables using cable gland(s) on the bottom side of light unit. Connect the cable wires securely to appropriate terminal block connectors. Slide the bottom plate properly in its place and securely tighten all screws.



1 Power input

Mark	Description	Information
+	Positive	Connect to power supply positive
-	Negative	Connect to power supply positive
PE	Ground	Protective earth

Tighten the connector screws using flat-head (straight) screwdriver.

2 RS485 input

Mark	Description	Information
D+	Data +	RS485 non-inverting pin
D-	Data -	RS485 inverting pin
SH	Shield	Shield

The RS-485 network (bus) input is connected to the Local Controller. Tighten connectors securely using flat-head (straight) screwdriver.

3 Configuration DIP switches

4 RS485 termination DIP switch (DIP4)

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Configuring Obelux LI Series

Turn on DIP 8 to configure the light in to Modbus (RS-485) operation. Configuration DIP switches 1-4 are used to give the light RS485 bus address. Duplicate addresses on the same bus are not allowed.

DIP switch				Modbus Address
1	2	3	4	
on	off	off	off	Address 01
off	on	off	off	Address 02
on	on	off	off	Address 03
off	off	on	off	Address 04
on	off	on	off	Address 05
off	on	on	off	Address 06
on	on	on	off	Address 07
off	off	off	on	Address 08
on	off	off	on	Address 09
off	on	off	on	Address 10
on	on	off	on	Address 11
off	off	on	on	Address 12
on	off	on	on	Address 13
off	on	on	on	Address 14
on	on	on	on	Address 15

RS-485 bus should be terminated with on-board 120 ohm resistors on both ends of the communications bus. Turn on DIP4 on from the termination DIP switches.