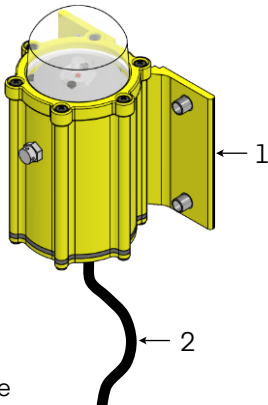


Pulsar

Low Intensity Obstruction Lighting

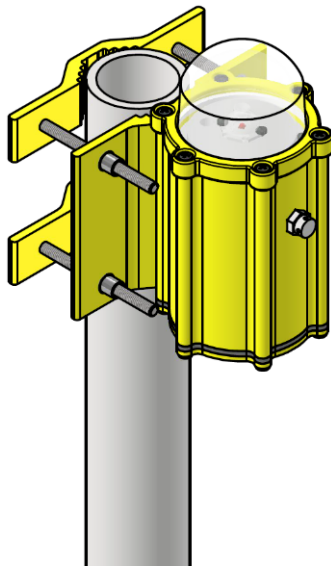


Compliance to Standards	ICAO: International Civil Aviation Organization, Aerodromes, Annex 14, Vol. 1 - Aerodrome Design and Operations, Paragraph 6 Romania CAA (Romanian Civil Aeronautical Authority): No. 12408 from 30.05.2008																												
Application	Marking of aerial obstacles, such as: towers, buildings, antennas.																												
Features	Designed and built with simplicity and ease of maintenance in mind. High power LED technology in 100000 hours estimated lifetime. Lightweight, low-energy and environment friendly lighting fitting. Extensive use of aluminum alloys reduces fitting weight and eases handling in the field.																												
Product Code	AL - OBS - XX - XXX <table> <tr> <td>Series Indicator (Airfield Lighting)</td><td>AL</td></tr> <tr> <td>Category (Obstruction Lighting)</td><td>OBS</td></tr> <tr> <td>Product Indicator</td><td>XX</td></tr> <tr> <td> 05 - Low Intensity Obstruction Lighting Type A Single</td><td></td></tr> <tr> <td> 06 - Low Intensity Obstruction Lighting Type A Double</td><td></td></tr> <tr> <td> 07 - Low Intensity Obstruction Lighting Type B Single</td><td></td></tr> <tr> <td> 16 - Low Intensity Obstruction Lighting Type B Double</td><td></td></tr> <tr> <td>Power Supply</td><td>XXX</td></tr> <tr> <td> 230 - Power Supply: 100-230 VAC</td><td></td></tr> <tr> <td> 048 - Power Supply: 48 VDC</td><td></td></tr> <tr> <td> 024 - Power Supply: 24 VDC</td><td></td></tr> <tr> <td> 012 - Power Supply: 12 VDC</td><td></td></tr> <tr> <td> 700 - Power Supply: 700 mA</td><td></td></tr> <tr> <td>Infrared (optional)</td><td>IR</td></tr> </table>	Series Indicator (Airfield Lighting)	AL	Category (Obstruction Lighting)	OBS	Product Indicator	XX	05 - Low Intensity Obstruction Lighting Type A Single		06 - Low Intensity Obstruction Lighting Type A Double		07 - Low Intensity Obstruction Lighting Type B Single		16 - Low Intensity Obstruction Lighting Type B Double		Power Supply	XXX	230 - Power Supply: 100-230 VAC		048 - Power Supply: 48 VDC		024 - Power Supply: 24 VDC		012 - Power Supply: 12 VDC		700 - Power Supply: 700 mA		Infrared (optional)	IR
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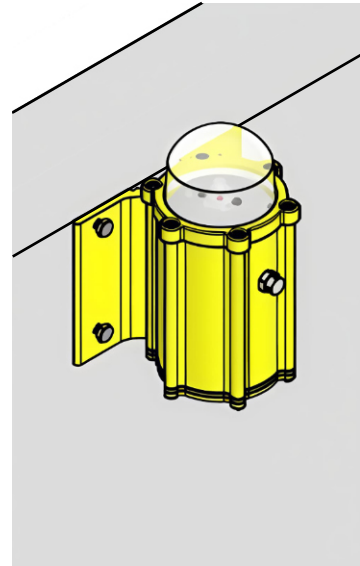
Description	Housing - Powder coated aluminum RAL 1004 (aviation yellow)  Disperser - Hardened glass Cable gland - Nickel-plated brass Fasteners - Stainless steel Light fixtures are provided with anti-condensation valve.		
Environment	Temperature range:	-55° to +55°	
	Degree of protection:	IP67	
Electrical Characteristics	Light Fixture Type	Type A	Type B
	Power Consumption	1.5 W	2.5 W
	Power Supply	100-230 VAC 48 VDC; 24 VDC; 12 VDC 700 mA - constant current	
	Electrical Connections 1. Light Fixture 2. Cable - 2m		
	Types of power supply:		
	• Low intensity obstruction light - Simple: 230 VAC power supply - 3 core cable 12 VDC, 24 VDC, 48 VDC power supply - 2 core cable 700 mA power supply - 2 core cable • Low intensity obstruction light - Double - with alarm and redundancy: 700 mA power supply - 3 core cable: V+ LED 1 V+ LED 2 Ground 12 VDC, 24 VDC, 48 VDC power supply - 4 core cable: + 12/24/48 Ground NO/NC - Alarm Com - Alarm 230 VAC power supply - 5 core cable: L N PE NO/NC - Alarm Com - Alarm		

Mounting

Ø30 mm up to Ø80 mm pole



Vertical flat surface

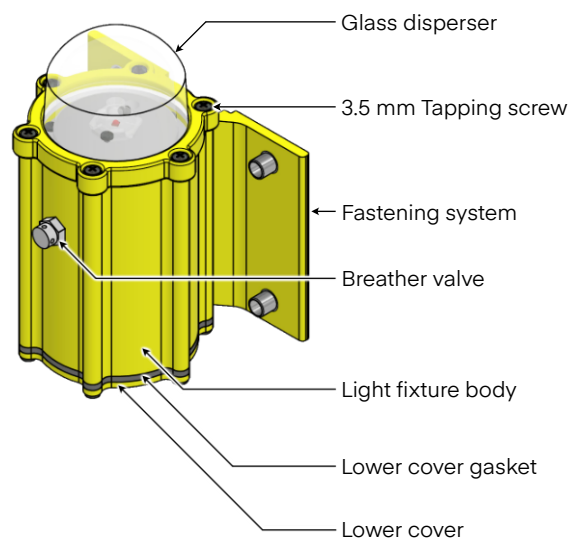
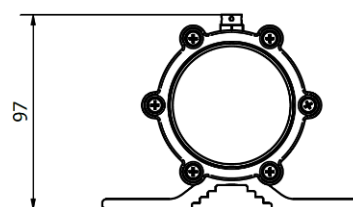
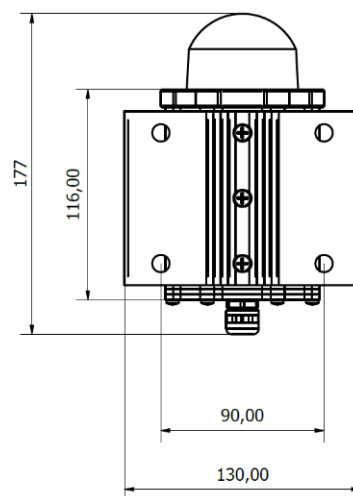


Mechanical Characteristics

Length / Width: 130 mm / 97 mm

Total height: 177 mm

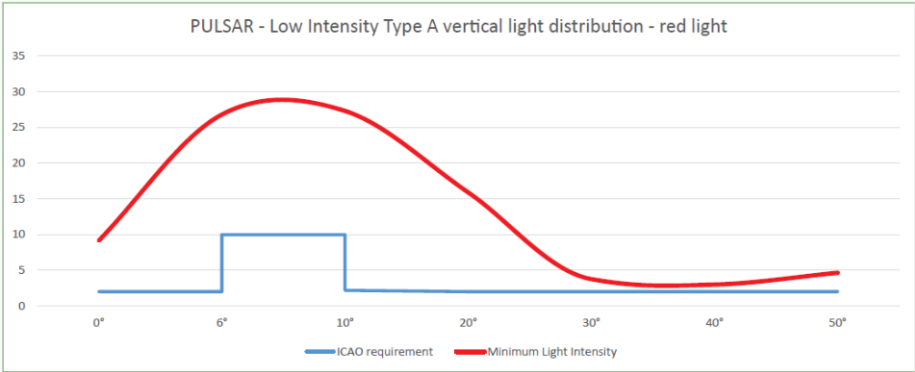
Weight: 1.2 kg



Photometric Characteristics

Horizontal output: 360°
Light color: Red light

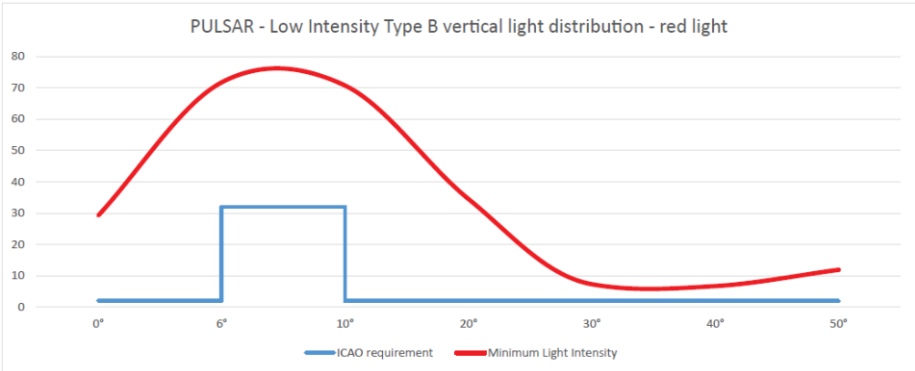
Pulsar - Low Intensity Type A Single or Double



The brightness intensity values comply with:
ICAO requirements Annex 14 Vol.1 table. 6-3

Vertical elevation angle	0°	6°	10°	20°	30°	40°	50°
Required minimum intensity [cd]	Visible enough	≥10	≥10	Visible enough	Visible enough	Visible enough	Visible enough
Measured minimum intensity [cd]	9,14	26,8	27,3	15,9	3,76	3,00	4,54

Pulsar - Low Intensity Type B Single or Double

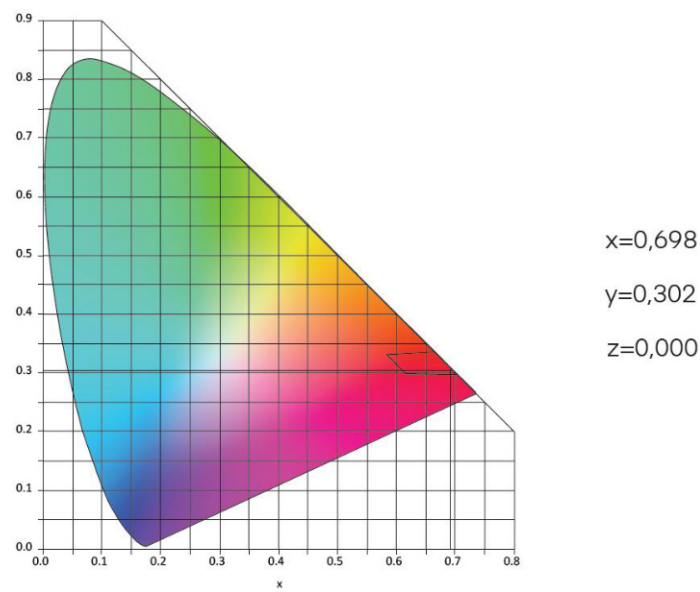


The brightness intensity values comply with:
ICAO requirements Annex 14 Vol.1 table. 6-3

Vertical elevation angle	0°	6°	10°	20°	30°	40°	50°
Required minimum intensity [cd]	Visible enough	≥32	≥32	Visible enough	Visible enough	Visible enough	Visible enough
Measured minimum intensity [cd]	29,20	71,70	70,70	34,50	7,30	6,70	11,90

Photometric Characteristics

Red light color emitted by the light fixture, with the following trichromatic coordinates:



The measured trichromatic coordinates correspond to color range requirements in:

ICAO Annex 14 - Aerodromes Vol.1, fig. A1-1b. Colors for aeronautical ground lights (solid state lighting)

Type	Type A Single	Type A Double	Type B Single	Type B Double
Image				
Led/Lens	1 × high-power LED & 1 × EMA lens	2 × high-power LEDs & 2 × EMA lenses	1 × high-power LED & 1 × KHATOD lens	2 × high-power LEDs & 2 × CARCLO
Signal Type	Fixed			

Alarm and Redundancy Configurations

Pulsar Type A/B Double V1 - no automated redundancy

Product code:

- Pulsar Type A Double: AL-OBS-06-XXX V1
- Pulsar Type B Double: AL-OBS-16-XXX V1

Default operation:

- Both LEDs ON, providing **2 x 32cd** (minimum) light output, (in accordance with ICAO standards).
- In the event of a LED failure, the remaining LED continues to provide at least **32 cd** (minimum) light output, (in accordance with ICAO standards).

Electrical connections:

- A 3-core cable is used for the **230 VAC** supply, consisting of: Live (**L**), Neutral (**N**) and Ground (**PE**)
- **12/24/48 VDC** - available upon request

Pulsar B Double with Internal Redundancy & Alarm Module & Twilight Sensor - automated redundancy and alarm module included

Product code:

- Pulsar Type A Double + Internal Module: AL-OBS-06-XXX + AL-158-AX
- Pulsar Type B Double + Internal Module: AL-OBS-16-XXX + AL-158-AX

Default operation:

- The primary LED is ON, providing a minimum light output of **32 cd** (in accordance with ICAO standards).
- In the event of a primary LED failure, the secondary LED automatically turns ON, and a wired fail alarm signal is generated (dry contacts: **NO/COM** or **NC/COM**).
- The alarm wiring must be connected to an existing dry-contact compatible system (e.g., BMS infrastructure).

Electrical connections:

A 5-core cable is used:

- 3 cores for the **230 VAC** supply consisting of: Live (**L**), Neutral (**N**), Ground (**PE**) and 2 cores for the fail alarm signal

Pulsar B Double with External Redundancy & Alarm Module & Twilight Sensor - automated redundancy and alarm module included

Product code:

- External Redundancy & Alarm Module: AL-OBS-08-XXX-FT-AT compatible with AL-OBS-XXX-700 only (2 x Type A/B SINGLE or 1 x A/B DOUBLE)

Default operation:

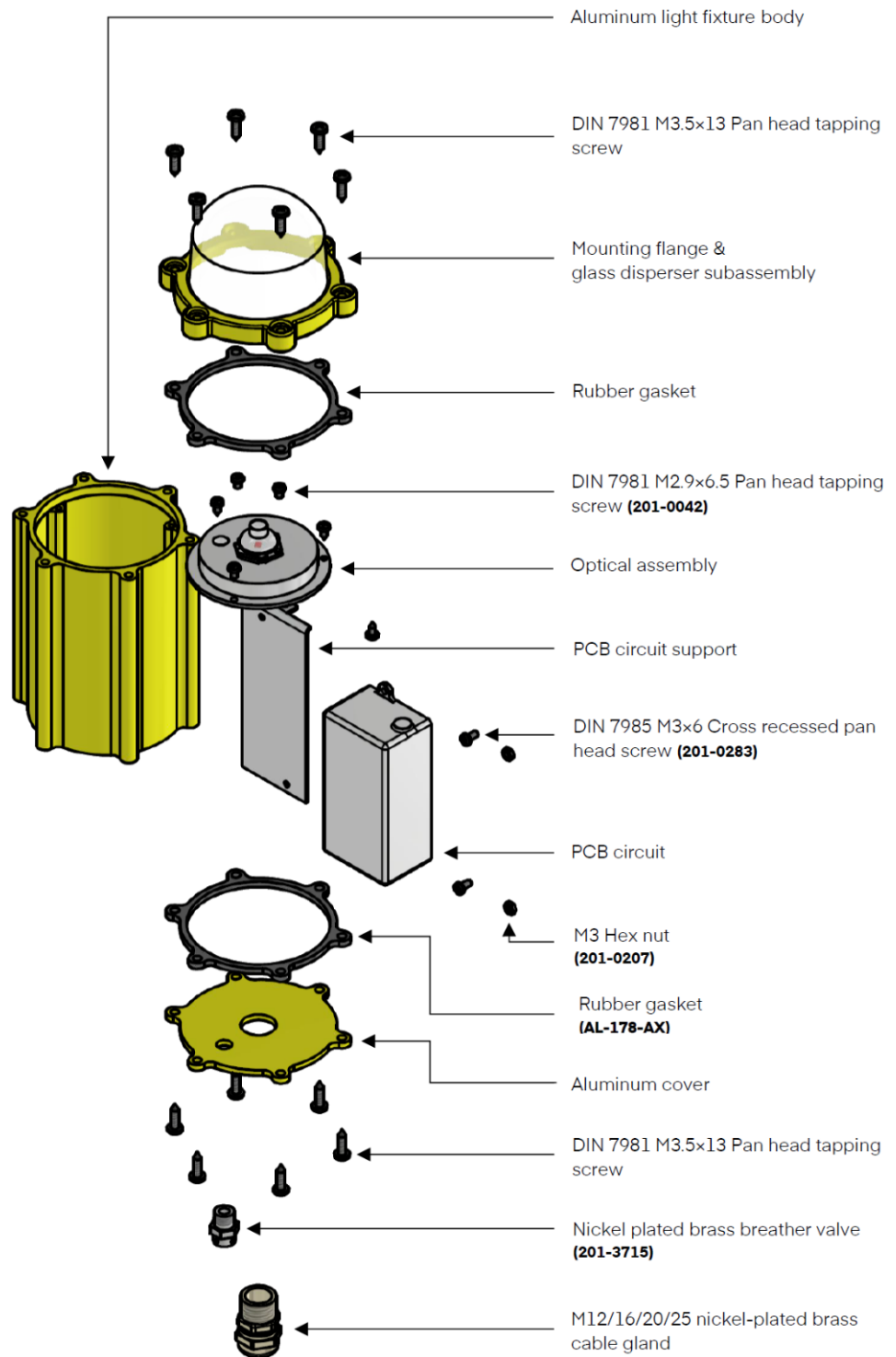
- The primary LED is ON, providing a minimum light output of **32 cd** (in accordance with ICAO standards).
- In the event of a primary LED failure, the secondary LED automatically turns ON, and a wired fail alarm signal is generated (dry contacts: **NO/COM** or **NC/COM**).
- The alarm wiring must be connected to an existing dry-contact compatible system (e.g., BMS infrastructure).
- integrated photocell: for day (**off**) / night (**on**) automated switching.
- integrated over-current protection

Electrical connections:

Two types of cables are used:

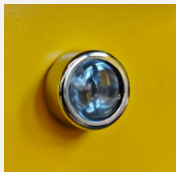
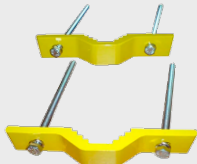
- 3-core cable for the **230 VAC** supply consisting of: Live (**L**), Neutral (**N**), Ground (**PE**)
- 2-core cable for the fail alarm signal

Spare Parts



Accessory

To order accessories please call our customer support.
For contact details please refer to our website - www.signalight.com

Product Code	Description	Image
AL-OBS-08-XXX	Basic controller, alarm and redundancy device (48 V DC or 230V AC power supply)	
AL-OBS-08-XXX-FT-AT	Advance controller, alarm and redundancy device (with integrated twilight switch and overload protection)	
AL-OBS-09-048	External twilight switch	
AL-OBS-10-XXX	Internal twilight sensor	
AL-OBS-11-AX	Solar panel power supply	
AL-158-AX	Internal alarm and redundancy module	
AL-OBS-02-AX	Fastening System	



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