



## DATASHEET

05 Feb 2016

# ICAO Low-intensity Type A (10cd) + Infrared 850nm ICAO Low-intensity Type B (32cd) + Infrared 850nm

Low-Intensity Infrared - LED Aircraft Warning Light

## Low-Intensity 10cd and 32cd with Infrared 850nm Stand-alone

#### **LED Aviation Obstruction Lights**

Low-intensity red aviation warning light incorporates an element of infrared creating a Night Vision Goggle (NVG) compatible obstruction light. The light is designed for marking tall structures such as wind turbines, chimneys, masts, and towers. Including functionality such as volt free fault monitoring, photocell and flash controller incorporated in the light.

#### **Key Features**

- Based on LED-technology
- 10cd and 32cd RED fixed and flashing light
- Incorporated infrared 850nm light
- Incorporated photocell and fault monitoring
- Extremely low-power consumption
- More than 10 years of maintenance free operating time
- 5 year warranty

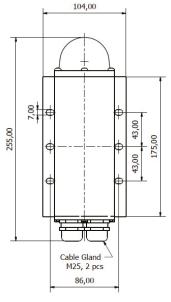
#### **Optical characteristics**

- 10cd fixed or flashing
- 32cd fixed or flashing
- Colour aviation RED
- Horizontal beam 360°
- Vertical beam +6°...+10°
- Infrared 850nm

#### Specifications met

- ICAO International Standards and Recommended Practices:
- Aerodromes Annex 14 Volume 1,
- 5th Edition, July 2009, Chapter 6: Low-intensity Type A Low-intensity Type B FAA Advisory Circular AC 150/5345-43G: L-810
- Finnish Civil Aviation Authority, TraFi





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#### **Electrical Characteristics**

- ACW- models, wide AC voltage range: Nominal 100...240V<sub>AC</sub>, Nominal 50 ... 60Hz
- DCW- models, wide DC voltage range: Nominal 10...60 V<sub>DC</sub>
- Overvoltage protection
- Constant power input by active PFC
- Day/Night switch (400/800/1600lux)
- Flash rates: 20/40/60fpm
- Power consumption 4-7W

#### Mounting Set Options

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

#### **Mechanical Characteristics**

- Anodised, marine grade aluminium body and end parts
- AISI316 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 ...4mm<sup>2</sup> wires



Order code	ICAO / FAA	Output	Op. volt.	Power cons.	Fault monitoring	Built-in photocell	Packing dimensions
CEL-LI-10+IR-DCW-A	Type A	10 cd	10-60VDC	4 W	Yes	Yes	280x130x100, 1,5kg
CEL-LI-10+IR-ACW-A	Type A	10 cd	100-240 VAC	7 VA	Yes	Yes	280x130x100, 1,5kg
CEL-LI-32+IR-DCW-A	Type B / L-810	32cd	10-60VDC	7 W	Yes	Yes	280x130x100, 1,5kg
CEL-LI-32+IR-ACW-A	Type B / L-810	32cd	100-240 VAC	9 VA	Yes	Yes	280x130x100, 1,5kg
Mounting sets							
CEL-MS-HV80	Mounting set, basic model for 33 to 80 mm pipes						
CEL-MS-EV60	Mounting set with extension plate for 30 to 60 mm pipes						
CEL-MS-EV100	Mounting set	Mounting set with extension plate for 60 to 100 mm pipes					
CEL-MS-EV150	Mounting set	Mounting set with extension plate for 100 to 150 mm pipes					
CEL-MS-DEV60	Mounting set	Mounting set for double lights with extension plate for 30 to 60 mm pipes					
CEL-MS-DEV100	Mounting set for double lights with extension plate for 60 to 100 mm pipes						
CEL-MS-RW	Mounting set with extension plate for roof or wall mounting						
CEL-MS-LVU	Mounting set	Mounting set with extension plate for L, V, and U-profiles, galvanized					
CEL-MS-N1B	Mounting set	Mounting set with 1" NPT at bottom					



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#### Electrical installation instructions

CEL 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 CEL 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.

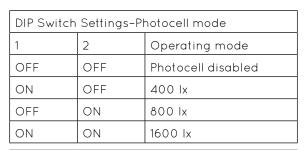
Open three screws on the bottom of CEL light to gain access to DIP switches. We recommend using a socket wrench but the screws can also be opened with a suitable flat-head screwdriver. Holding the aviation obstacle light glass dome pointing upwards, the individual DIP switches are numbered 1-4 from left to right.

#### Installation specifications

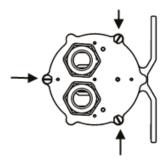
- Cable gland M25
- Cable diameter 11 to 17mm
- Wire diameter max. 6mm<sup>2</sup>
- Recommended cable 3x1.5mm<sup>2</sup> or 3x2.5mm<sup>2</sup>

#### **Options**

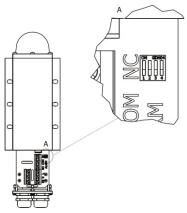
CGS-20 Smaller cable glands
Set includes 2 pcs M20 cable glands with M25-M20 adapters for
7-13 mm cables



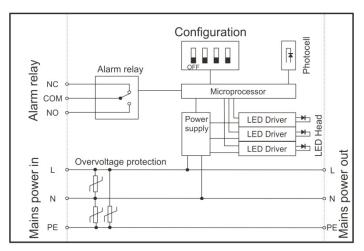
DIP Switch Settings-Flash mode				
3	4	Operating mode		
OFF	OFF	Steady-burning i.e.fixed		
ON	OFF	20 flashes per minute		
OFF	ON	40 flashes per minute		
ON	ON	60 flashes per minute		



1. Bottom plate screws



2. Location of DIP switches



3. Block diagram of CEL LI+IR stand-alone light.

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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#### CEL MS-HV80

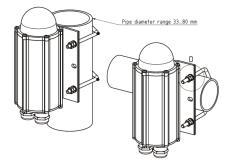
Mounting set for 33-80 mm vertical or horizontal pipe.

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

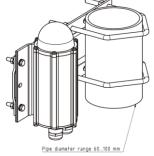






Order Code: MS-EV100

# Order Code: MS-EV60



Order Code: MS-EV150

#### **CEL 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 anodised aluminium, other parts AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-EV60 datasheet

#### CEL 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 anodised aluminium, other parts AISI316 acid-proof stainless steel.

More detailed mechanical data: see MS-EV100 datasheet

#### CEL 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



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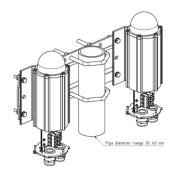
#### **CEL MS-DEV60**

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

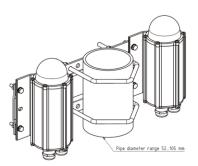
#### **CEL MS-DEV100**

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

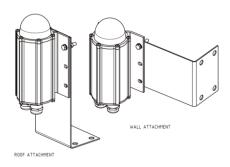
#### CEL MS-RW

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



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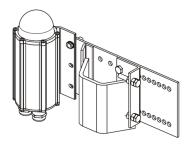
#### **CEL MS-LVU**

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)

#### CEL MS-N1B:

Mounting set for 1" NPT at bottom

More detailed mechanical dimensions: see MS-N1B datasheet.



Order Code: MS-N1B

