

29 Mar 2016

$12V_{DC}$ Combo: MOD compatible Infra-Red and Visual Red Obstruction Light

CEL-IR850-R-12-CST - LED Aircraft Warning Light

Application

Night vision goggles compatible 850nm infrared and visual red obstruction light for wind turbines and other vertical structures that cause aviation safeguarding concerns

Key features

- Based on LED technology
- Combo IR and Red led light
- IR and Red light can be Controlled separately
- Extremely reliable
- Very long life time
- Low power consumption
- 12V_{DC} operating voltage
 Stabilised light output
- Easy to install
- Mounting set and terminal box included

Benefits

- Long maintenance intervals
- Low energy costs
- Input power voltage variations do not affect to light output
- Very low lifetime costs

Specification met

MOD Obstruction Lighting Guidance, Low Flying Operations Sqn (MOD CAS-AS LFOS) - 21 Nov 2014

Radiometric characteristics IR

- -Typical intensity 300mW/sr, Peak 600mW/sr
- Colour Infrared 850nm
- Horizontal radiation pattern 360°
- Vertical radiation pattern -15° ... +30°
- Current for the LEDs is stabilised by constant current generator
- Expected lifetime without light output falling 25% >100,000hrs

Optical characteristics Red

- Intensity >40cd
- Colour aviation red
- Horizontal radiation pattern 360°
- Vertical radiation pattern 0° ... +15°
- Current for the LEDs is stabilised by constant current generator - Expected lifetime without light output falling 25% >100,000 hrs

Electrical characteristics

IR

- Nominal operating voltage $12V_{DC}$
- Operating voltage range 11.5 ... $18V_{DC}$
- Power consumption (15,5) ((1,3) constant current)
- Average power consumption with 60 fpm, 250 ms flashing mode ${<}3{,}8\,{\rm W}$

Red

- Nominal operating voltage $12V_{DC}$
- Operating voltage range 11.5 ... $\tilde{1}\,V_{\text{DC}}$
- Power consumption <5W (<0,4A constant current)

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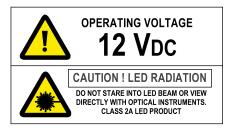
Mechanical characteristics

- Black anodised aluminium light unit body
- Galvanised mounting arm
- Acid proof U-bolts and hex nuts
- Uncoloured glass cover
- Degree of protection IP65
- Operating temperature range -55 ... +55°C
- Height 200mm, diameter 140mm
- Total weight with mounting set 3.4kg
- 5 year warranty

Order Code: CEL-IR850-R-12-CST

Options

- CSW-12-16-GPS, flash controller and fault monitoring unit with GPS-synchronisation



T: +44 (0)20 8540 1034 F: +44 (0)20 8543 3058 E: info@contarnex.com

Contarnex Europe Limited 252 Martin Way, Morden, Surrey SM4 4AW United Kingdom



www.contarnex.com

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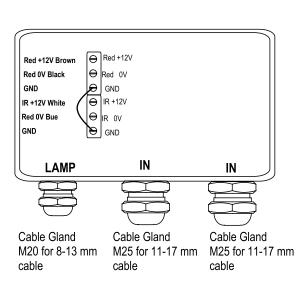
CEL LED obstacle lights cabling and installation principles are similar to those of conventional obstacle lights, the only exception being the correct polarity required by DC feed.

Terminal box include screw terminals and overvoltage protectors.

All connection alternatives can be protected with a 6A or 10A fuse or with a circuit breaker (C curve).

Installation specifications

- Cable gland for lamp: M20, 8-13mm cable
- Cable gland for IN T: M25, 11-17mm cable
- Wire diameter: max. 6mm²
- Recommended cable: 3 x 1.5mm2, 3 x 2.5mm²
- 5 x 1.5mm² or 5 x 2.5 **29 Mar 2016** mm²



Over voltage protectors Metal Oxide Varistor

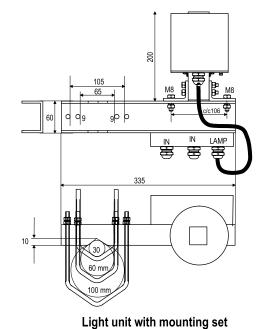
Red +12V

4.5 kA (8/20 us)

⊖ ir ov ⊖ gnd

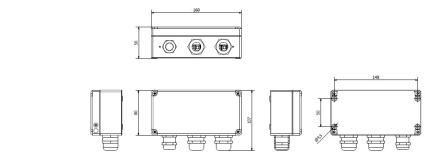
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Connection Terminal Box Dims 160 x 107 x 56mm



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