

LLO Outside Light Level Sensor

OUTSIDE LIGHT LEVEL SENSOR



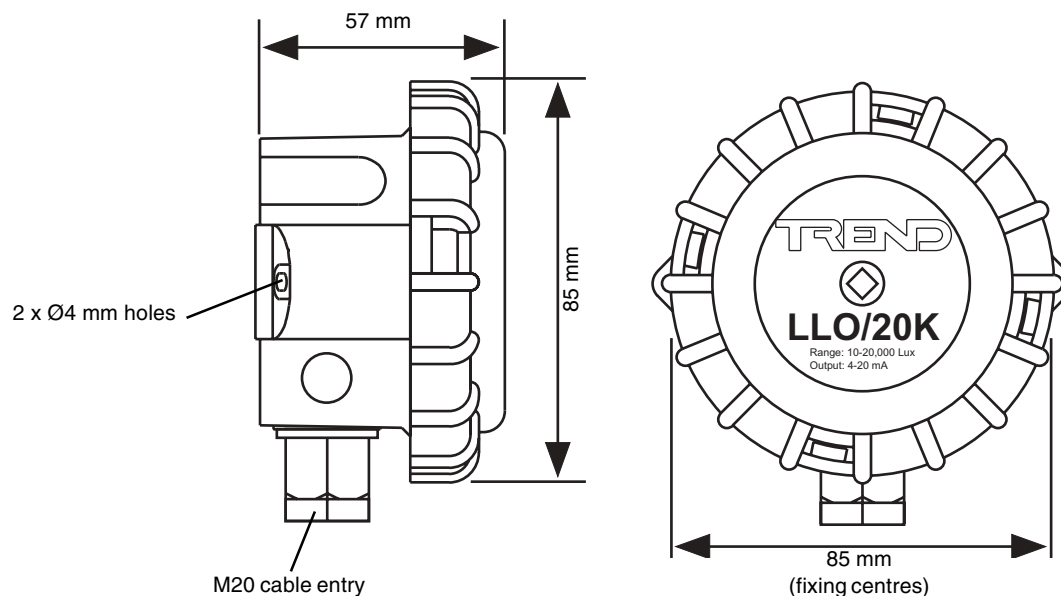
Description

The Outside Light Level Sensor is an accurate lux calibrated light level sensor for monitoring and control applications. Enclosed in an IP67 housing with M20 cable entry, it is ideal for external mounting. It has a ranges of 200, 2000, 4000, or 20000 lux, each providing a 4 to 20 mA output signal.

Features

- precalibrated (in lux)
- 4 to 20 mA output
- IP67 housing
- ideal for outside light level measurement

Physical



FUNCTIONALITY

The sensor is hermetically sealed into the lid of an IP67 housing. The sensor is polarity independent, loop powered, giving a 4 to 20 mA signal proportional to light intensity (lux).

OPERATIONAL DATA

Typical Daylight Conditions

illuminance (lux)	Description
15 to 20	dusk
2000	reasonable daylight
20000+	bright sunlight

Recommended Service Illuminations

illuminance (lux)	Description
20	minimum service illuminance in outside circulation areas
30	outdoor stores, stockyards
50	exterior walkways, and car parks
75	docks and quays
150	circulation areas in industry, stores, and stockrooms
200	minimum service illuminance on task
500	general office and retail sales areas
1500	fine bench and machine work, and precision assembly

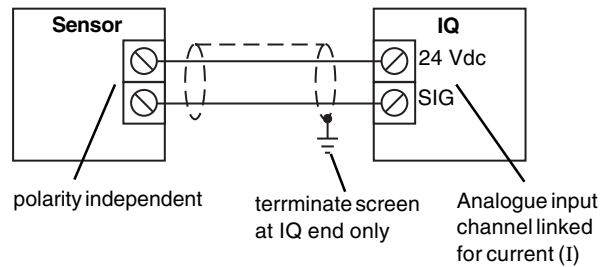
Note that hand held meters generally have a ±10% error.

INSTALLATION

The sensor should be mounted on a north facing wall, out of direct sunlight. It should not be close to a light source such as street lighting.

- Choose location
- Fix to the wall using two screws.
- Remove Lid.
- Route cable through cable gland.
- Connect to IQ controller via 2 part terminals
- Replace Lid
- Set up strategy
- Test

CONNECTIONS



Full installation details are given in the LLO Installation Instructions TG100153A.

PRODUCT CODE

LLO/[range]

[range]	Light Intensity
0K2	0 to 200 lux
2K	10 to 2000 lux
4K	10 to 4000 lux
20K	10 to 20000 lux

SPECIFICATIONS

- Range
 - 0K2 :0 to 200 lux
 - 2K :10 to 2000 lux
 - 4K :10 to 4000 lux
 - 20K :10 to 20000 lux
- Output :4 to 20 mA
- Accuracy :±5% across range
- Power supply :10 to 33 Vdc
- Span adjustment range :±10%
- Zero adjustment range :±10%
- Field of view :124 ° maximum
- Ambient limits : -25 to +70 °C
- :0 to 95 %RH
- Connections :two part screw terminals for 0.5 to 2.5 mm² cross section area cable
- Dimensions :85 x 85 x 57 mm
- Weight : 154 gms
- Enclosure material :impact resistant ABS
- Environment protection :IP67

IQ Scaling

For IQ controllers the input channel must be set up correctly and the sensor type module must be set up with the correct scaling. For all IQ2 series controllers with firmware of version 2.1 or greater use the following table; for all other IQ controllers see the Sensor Scaling Reference Card TB100521A.

Link input channel for current I, use sensor type scaling mode 5, characterise, with input type set to 2 (current) and the table below:

Range	Y	E	U	L	P	I ₁	I ₂	O ₁	O ₂
0K2	2	3	200	0	2	4	20	0	10
2K	2	4	2000	10	2	4	20	10	2000
4K	2	5	4000	10	2	4	20	10	4000
20K	2	5	20000	10	2	4	20	10	20000

System Accuracy (including controller)

- 0K2 :± 10 lux
- 2K :± 100.5 lux
- 4K :± 201 lux
- 20K :± 1005 lux

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