External Light Level Transmitter

LOC LOV

Nov.09

LOC
LOV

Features

- **Active control of artificial lighting**
- **0-10Vdc or 4-20mA output**
- **Maximum energy efficiency**
- **Three selectable ranges:**
  0-500lux
  0-20klux
  0-60kllux
- **Optimise light levels**
- **Precalibrated in Lux for ease of installation**
- **Special calibration on request**

Technical Data

Power supply	24Vac/dc current consumption max.10mA at 24Vdc
Sensor	photodiode
Measuring range	0-500Lux/20klux/60klux switchable via jumpers. Other ranges optional e.g.0-100lux
Output	4-20mA (active) 0-10Vdc (linearised)
Ambient temp.	-10...+50degree
Electrical connect.	0.14...1,5mm2 via terminal screws on circuit board
Measuring error	< +/- 10% of final value
Temperature drift	< +/- 5% of final value/ 10K
Enclosure	plastic, material polyamide 30% glass-glove-reinforced, with quick-locking screws colour pure white (similar to RAL9010)
Dimensions	72x64x29,4
Installation	on-wall
Cable entry	M16, including strain relief
Protection class	III according to EN 60 730
Protection type	IP65 according to IEC529
Standards	CE conformity, electromagnetic compatibility according to EN 61326+A1+A2 EMC directive 89/336/EWG

Application

LOC/LOV is an external light level transmitter designed for use in the active control of artificial ligting.

LOC/LOV is made to optimise light levels and to achieve maximum energy.

LOC/LOV is build and dseigned for outdoor facilities.

The high levels of lux is used for sunshade systems.

The light level increases or decreases automatically via control equipment depending on the level of light alternative swicth off/ on depenping on lux value.

Design Features

LOC/LOV transmitters use photo-diode cells to detect light levels in a selection of lux ranges, providing a linear 0-10Vdc or 4-20mA signal.

The measuring range for LOC/LOV is easily set by a jumpers.

Ordering Codes

LOC	External light level transmitter 4-20mA selecteable ranges
LOC 100KL	External light level transmitter 4-20mA 0-100klux
LOV	External light level transmitter 0-10Vdc selecteable ranges
LOV 100KL	External light level transmitter 0-10Vdc 0-100klux

Other options on request

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Installation and Connection Details

All connections to BEMS controllers, data recorders etc. should be made using screened cable.

Normally, the screen should be earthed at one end only (usally the controller end) to avoid earth hum loops which can create noise.

Low voltage signal and supply cables should be routed separately from high voltage or mains cabling.

Seperate conduit or cable tray should be used.

Where possible, the controller´s earth should be connected to a FUNCTIONAL EARTH, rather than the mains safety earth.

This will provide better immunity to high frequency noise.

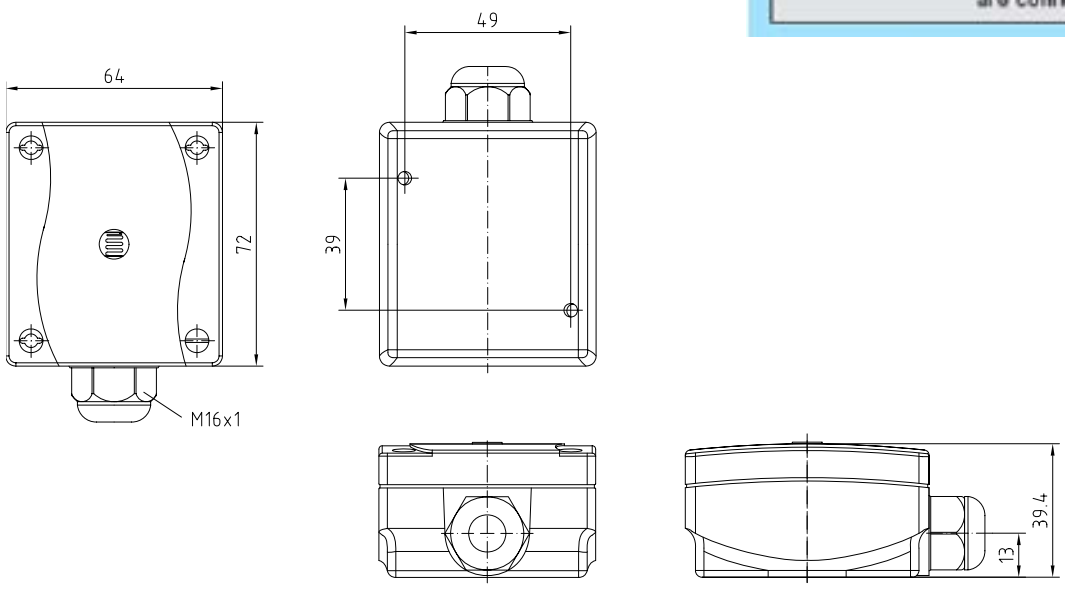
Most modern buildings have a seperate earth for this purpose.

Connecting Diagram

1	UB-GND
2	UB+supply voltage 24V AC / DC
3	GND
4	Output light intensity 4-20mA (linearised)

1	UB-GND
2	UB+ supply voltage 24V AC / DC
3	GND
4	Output light intensity 0-10V (linearised)

Dimensions



Operational Data

Typical Daylight Conditions:

Dusk	15-20lux
Average daylight	2000lux
Bright sunlight	20000+lux

Service Illuminations:

Minimum for outdoor areas	25lux
Exterior walkways & carparks	50lux
Industrial circulation areas, stores etc	150lux
Minimum task lighting	200lux
General officies & retail areas	500lux
Fine task, machine operation, precision ass.	1500lux