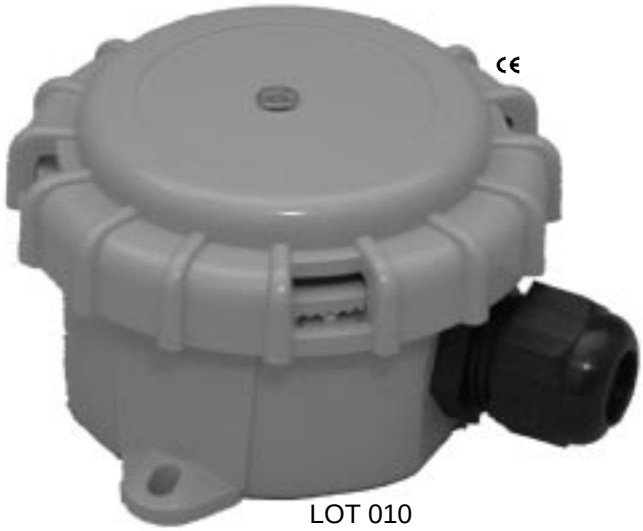
EXTERNAL LIGHT LEVEL TRANSMITTER LOT 010

AUG.01



LOT 010

FEATURES

- **Active control of artificial lighting**
- **0-10 Vdc output**
- **Maximum energy efficiency**
- **Photo-diode measurement cell**
- **5.0 % accuracy**
- **Four selectable ranges LOT:**
  0 - 2 000 Lux
  0 - 4 000 Lux
  0 - 10 000 Lux
  0 - 20 000 Lux
- **60 degrees field of view**
- **Optimise light levels**
- **Precalibrated in Lux for ease of installation**
- **Special calibration on request**

APPLICATION

LOT 010 is a external light level transmitters designed for use in the active control of artificial lighting.
LOT 010 is made to optimise light levels and to achieve maximum energy efficiency.
LOT 010 is build and designed for outdoor facilities.
The high levels of lux is used for sunshade systems.
LOT 010 have selectable slug link to prevent spurions reaction as passing clouds etc.
The light level increases or decreases automatically via control equipment depending on the level of light alternative switch off/on depending on lux value.

TECHNICAL DATA

Sensor reference	Photo diode
Accuracy	±5% across range
Field of view	60 degrees
Housing	
Material	Polycarbonate
Dimensions	84 x 84 x 36 mm
Ambient range	
Temperature	0...+50°C
RH	0-100 % non-condensing
Power supply	24 Vac/dc (±10 %)
Connections	3-wire
Output	0-10 Vdc
Protection	IP65
EMC	EN-50081-1 Emmission EN-50082-1 Immunity
Weight	250 g

DESIGN FEATURES

LOT 010 transmitters use photo-diode cells to detect light levels in a selection of lux ranges, providing a linear 0-10 Vdc.
The measuring range for LOT 010 is easily set by a DIP-switch.

ORDERING CODE

LOT 010	External light level 0-10 Vdc, selectable lux ranges

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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 (usually 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. Separate conduit or cable trays 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 separate earth for this purpose.

MOUNTING

It is recommended that the unit be mounted with the cable entry at the bottom. If the cable is fed from above then into the cable gland at the bottom, it is recommended that a rain loop be placed in the cable before entry into the transmitter.
Remove the front cover by twisting the lid and separating from the main body. Using the base of the housing as a template mark the hole centres. Drill two pilot holes at 85mm centres in the surface on which the transmitter is to be mounted, and fix the transmitter with appropriate screws. The housing is designed to make it easy for an electric screwdriver to be used if desired.
Feed the cable through the waterproof gland and terminate the cores at the terminal block. Leaving some slack inside the unit, tighten the cable gland onto the cable to ensure watertightness. Replace the lid after the electrical connections have been made.

SETTING THE LIGHT LEVEL RANGE

The range of the light level is selected by moving the light level jumper to the required 2-way header.
Four ranges are available:

- 0 - 2000 Lux
- 0 - 4000 Lux
- 0 - 10000 Lux
- 0 - 20000 Lux

CONNECTIONS

Terminal 1: +V = Supply
Terminal 2: 0V = Gnd
Terminal 3: O/P = 0-10 Vdc output

OPERATIONAL DATA

Typical Daylight Conditions:	**Lux**
Dusk	15-20
Average daylight	2 000
Bright sunlight	20 000+

Service Illuminations:	**Lux**
Minimum for outdoor areas	25
Exterior walkways & carparks	50
Industrial circulation areas, stores etc.	150
Minimum task lighting	200
General offices & retail areas	500
Fine task, machine operation, precision assembly etc.	1 500

DIMENSIONS