

TWN-LUX Light Sensor.

Light Intensity (LUX)
Sensor and 3 Wire
Output Transmitter.

Description.

The TWN-LUX incorporates a silicon photodiode light sensor, in a hermetical sealed case, especially designed for high precision linear applications. The sensor has a flat glass window with a built in colour correction filter, giving an approximation to the spectral response in the human eye. As an aid in adjustment an LED is mounted next to the sensor, with a gradual turn on at approx. 30% FSO.

Ordering Information.

TWN-LUX Standard Calibration: 0~1000lux Nominal.
Special Calibration Ranges available from 0~1lux to 0~5000lux.

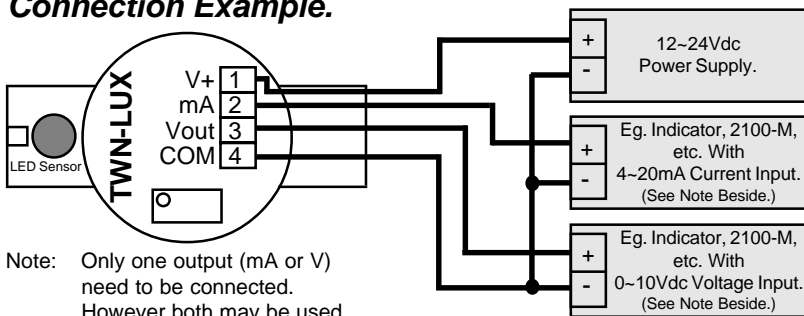
Specifications.

Input		Adjustable from 1~10lux to 0~1000lux Nominal, Standard Calibration. Turn Pot fully clockwise = 0~10lux Nominal, Standard Calibration. Turn Pot fully anticlockwise = 0~1000lux Nominal, Standard Calibration. (Note: Pot requires 25 turns to go from one end to the other.)
Output	-Voltage	0~10Vdc. Output Impedance = 1kΩ (Note: With a 12Vdc power supply output may only rise within approx. 95% FSO.)
	-Current	4~20mA, 3 wire. Max Load = 300Ω @ 12Vdc. Max Load = 900Ω @ 24Vdc.
Power Supply		12~24Vdc.
Current Draw	-Voltage Output	20mA @ 24Vdc P/S with 10Vdc out.
	-Current Output	40mA @ 24Vdc P/S with 20mA out.
Operating Temperature & Humidity		0~60C. (Storage Temp. -20~80C.) 5~85% RH Max. Non-Condensing.
Enclosure		Conduit Two Way J-Box 20mm.

Product Liability. This information describes our products. It does not constitute guaranteed properties and is not intended to affirm the suitability of a product for a particular application. Due to ongoing research and development, designs, specifications, and documentation are subject to change without notification. Regrettably, omissions and exceptions cannot be completely ruled out. No liability will be accepted for errors, omissions or amendments to this specification. Technical data are always specified by their average values and are based on Standard Calibration Units at 25C, unless otherwise specified. Each product is subject to the 'Conditions of Sale'.

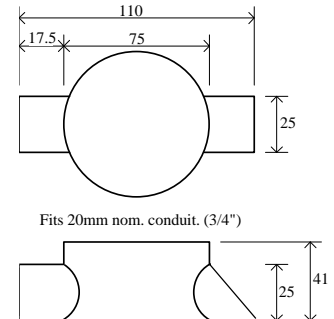
Warning: These products are not designed for use in, and should not be used for patient connected applications. In any critical installation an independent fail-safe back-up system must always be implemented.

Connection Example.



Note: Only one output (mA or V) need to be connected. However both may be used.

Dimensions.



The Proper Installation & Maintenance of TWN-LUX.

MOUNTING.

- (1) Mount in a clean environment away from power control equipment. Be mindful of positioning the light sensor, (mounted at the end of the enclosure) so that the desired level of illumination reaches the sensor. Do Not mount the sensor in direct light or sunlight - measure reflected light.
- (2) Do not subject to vibration or excess temperature or humidity variations.

WIRING.

- (1) All cables should be good quality overall screened INSTRUMENTATION CABLE with the screen earthed at one end only.
- (2) Signal cables should be laid a minimum distance of 300mm from any power cables.
- (3) For 2 wire current loops Austral Standard Cables B5102ES is recommended. For three wire transmitters, RTD's and Resistance Probes, Austral Standard Cables B5103ES is recommended.
- (4) It is recommended that you do not ground current loops and use power supplies with ungrounded outputs.
- (5) Lightning arrestors should be used when there is a danger from this source.
- (6) Refer to diagrams for connection information.

COMMISSIONING.

- (1) Once all the above conditions have been carried out and the wiring checked apply power to the TWN-LUX and allow five minutes for it to stabilize.
- (2) It is advised to adjust the output of the TWN-LUX to the lux level required using a calibrated lux meter, once the "room" being measured is complete. This is necessary as every installation has a unique reflective pattern, depending on colours, windows, positioning of walls, furniture, etc.
Turn the Pot clockwise to increase the output reading, and anticlockwise to decrease the output reading.

MAINTENANCE.

- (1) Repeat (3) of the commissioning instructions. Do it regularly - at least once every 12 months.

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