



Long range Luminiscence Sensor

Series LuS-100

- UV label detection
- Switching frequency 6 kHz
- Detection range ≤ 120 mm
- UV LED 370 nm

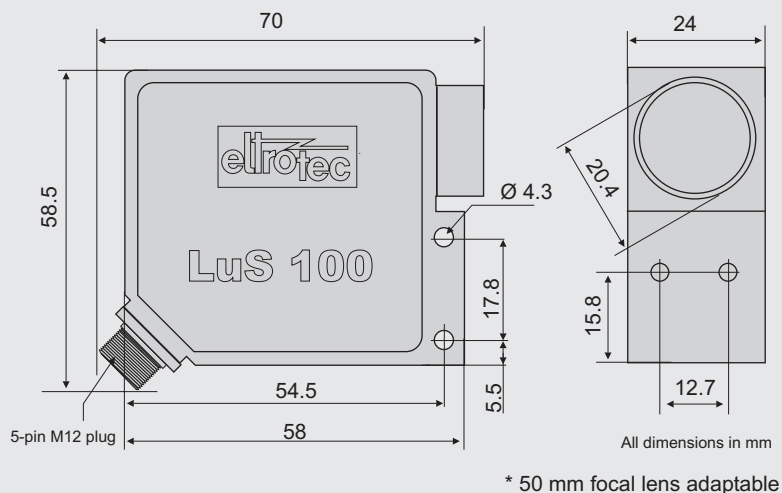
Advantages:

- Long range sensing capability.
- High detection speed.
- 370 nm UV LED light source allows detection of UV luminescent materials and markers.
- Two gain settings and three light source intensity settings allow a wide range of adjustment capability.
- Easy-to-use operator adjustable threshold.
- Fast and convenient integration. In one sensor you get both analogue and discrete output, auto-detect for PNP/NPN configuration.
- Unique numerical display indicates measured levels making process setup easy.
- Circular spot allows for any orientation of sensor to marks

Applications

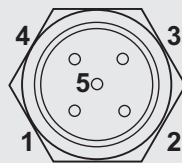
- Unmatched detection of UV fluorescent materials
- Break in a seal
- Grease, Oil, Glue, Labels, Epoxies, UV ink, Varnish, Wood, Textiles, UV Crayons, Paper, Adhesive, Paint
- Pharmaceuticals and Packaging industry

Dimensions



Wiring connections

M12 Connector	Wire color	Description
1	brown	Supply (+) 10 -24 VDC
2	white	Switching output (PNP/NPN)
3	blue	GND
4	black	Analogue output 0-5 VDC
5	grey	Remote lock / unlock



Display elements

Numeric display of 50 intensity levels

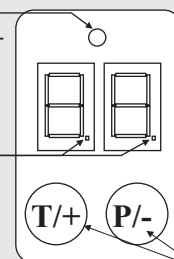
Indicator LED

Green: Threshold Mode while in UNDETECT
Red: DETECT
Yellow: Threshold Mode while in DETECT

Display decimal points

None illuminated: LED low intensity
One illuminated: LED medium intensity
Two illuminated: LED high intensity

Display range 00-50



LED intensity
Threshold setting
Local lock
Hysteresis level
Teach function

Technical data

Electrical data	Supply Voltage	10 to 24 VDC
	Current consumption	~ 60 mA
	Data retention	non-volatile EE-Prom memory
	On / Off delay	< 200 µs
	Switching frequency	6kHz
	Sensitivity	x1, x10
Optical data	Sensing distance	up to 120 mm (50 mm focal lens available)
	Spot size at 20 mm distance at 100 mm distance	~ 8 mm Ø ~ 13 mm Ø
Light source	LED	370 nm UV LED
	Life cycle	min 100.000 h
	LED intensity	3 levels (low, medium, high)
Receiver	Spectral response	350 -1000 nm
Output	Switching output current	max. 60 mA, short circuit protected NO/NC selectable, auto-detect PNP/NPN
	Analog output	0...5 V (% of full scale, 20 mV resolution)
Temperature	Operating	-20 to 55 °C
	Storage	-20 to 70 °C
Protection	Supply	reverse polarity protected
	Output	permanent short-circuit protected
	Degree of protection	IP 67
Housing	Material	Metal alloy
	Weight	approx. 95 g

Ordering information

Product	Part No.
Sensor LuS-100	10423722
Mounting bracket KS-300	11303680
Connection cable, M12 straight 5pin, length 2 m	11231168
Connection cable, M12 straight 5pin, length 5 m	11232536

Quickstart guide

1. The display range is 00 through 50. The decimal points indicate the LED intensity level. The RED LED above the display indicates that the intensity level exceeds the threshold setting.
2. Connect cable to power supply observing correct polarity. Reference wiring diagram.
3. NOTE: The remote lock input, pin 5 on the connector (grey wire), must be left unconnected or pulled to ground to allow operation of keys on sensor.
4. Apply power; sensor will initialize and perform its power up sequence.
5. The relative intensity will be displayed. By aiming the sensor away from any objects the display will indicate 00. Aim the sensor at your target or a white piece of paper and the display will indicate an intensity measurement. Move the target further away from the sensor to decrease the intensity level.
6. Press and release either key located below the display to view the current threshold setting. While the current threshold is shown on the display, press the + or - key to increase or decrease the setting, then wait several seconds for the sensor to return to the normal intensity display mode.
7. To enter programming mode press and hold **P/-** key for several seconds. The LED intensity level will be displayed at first (U1, U2, U3).