



Luminescence sensors LUT1

LUT1U-11331



Model Name > **LUT1U-11331**
Part No. > **1024128**



At a glance

- Infinite switching threshold adjustment using touch-sensitive keypad
- Long sensing distances up to 150 mm
- Transmitter LED UV (375 nm) or blue (470 nm)
- Fast switching speed 600 Hz or 6 kHz

Your benefits

- Robust metal housing is reliable and ideal for tough environment conditions
- High detection reliability ensures the process: Blue transmitter LED excites red luminophores especially well. The UV LED is well-suited for blue, green or yellow marks.
- Visible light spot of the LUT1B version makes accurate alignment easy



Features

Dimensions (L x W x H):	60 mm x 23 mm x 70 mm
Sensing distance ¹⁾ :	150 mm
Operating range:	60 mm 160 mm
Light source ^{2), 3)} :	UV-LED
Light emission:	Long side
Light spot size:	12 mm x 12 mm
Receiving filters:	KV 418 (standard)
Receiving range:	450 nm ... 750 nm
Adjustment:	Manual ("+" / "-" button)
Output function:	Light switching

¹⁾ From front edge of lens ²⁾ Average service life of 100,000 h at T_A = +25 °C ³⁾ Wave length: 375 nm

Mechanics/electronics

Supply voltage V _s ¹⁾ :	DC 10 V ... 30 V
Ripple ²⁾ :	< 5 Vpp
Power consumption ³⁾ :	< 40 mA
Switching frequency ⁴⁾ :	6 kHz
Response time ⁵⁾ :	85 µs
Output type:	PNP: HIGH = V _S - ≤ 2 V / LOW approx. 0 V
Switching mode:	PNP
Output current I _{max} :	200 mA
Connection type:	Connector M12, 5-pin

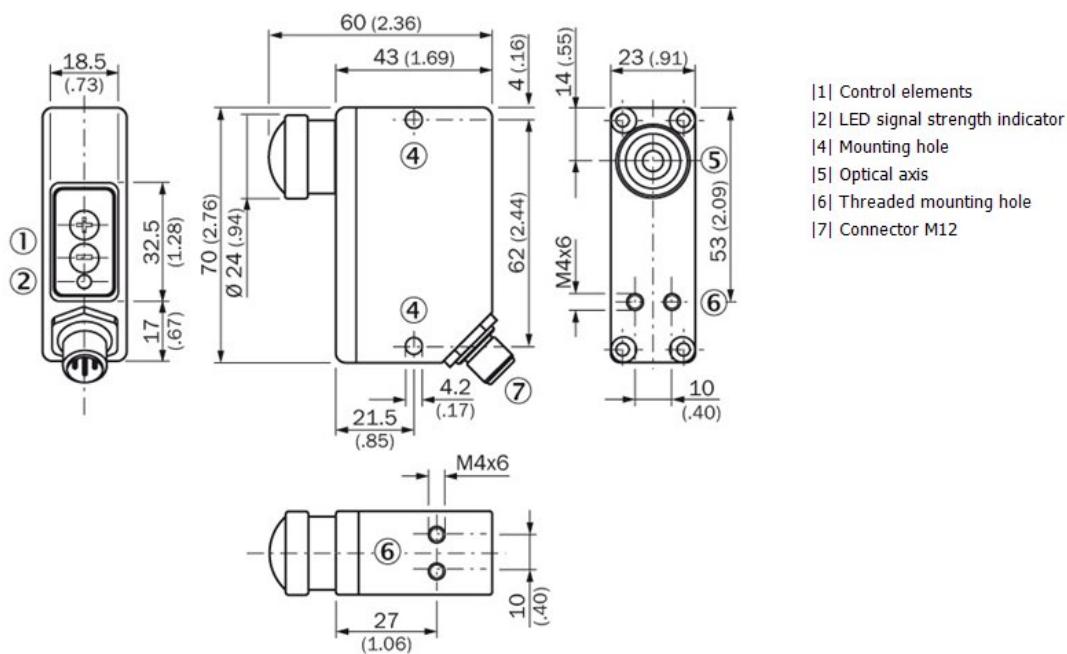
Protection class ⁶⁾ :	III
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	Ca. 240 g
Housing material:	Zinc diecast

¹⁾ Limit values: operation in short-circuit protected network max. 8 A
 ²⁾ May not exceed or fall short of V_S tolerances
 ³⁾ Without load
 ⁴⁾ With light/dark ratio 1:1, no time delay
 ⁵⁾ Signal transit time with resistive load
 ⁶⁾ Reference voltage DC 50 V

Ambient data

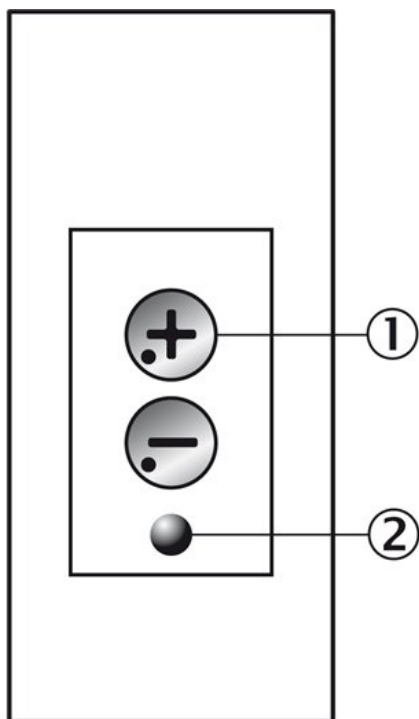
Ambient temperature:	Operation: -20 ... 60 °C Storage: -40 ... 70 °C
Shock load:	According to IEC 60068

Dimensional drawing



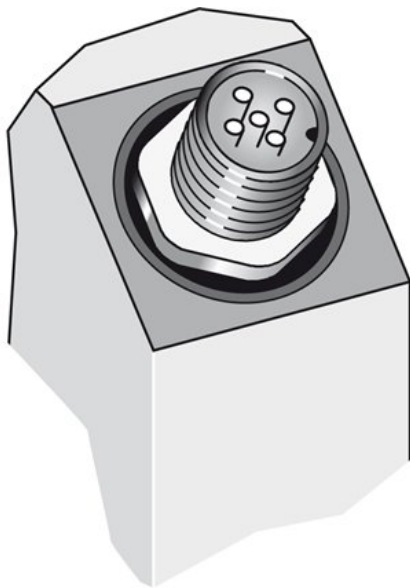
All dimensions in mm (inch)

Adjustments

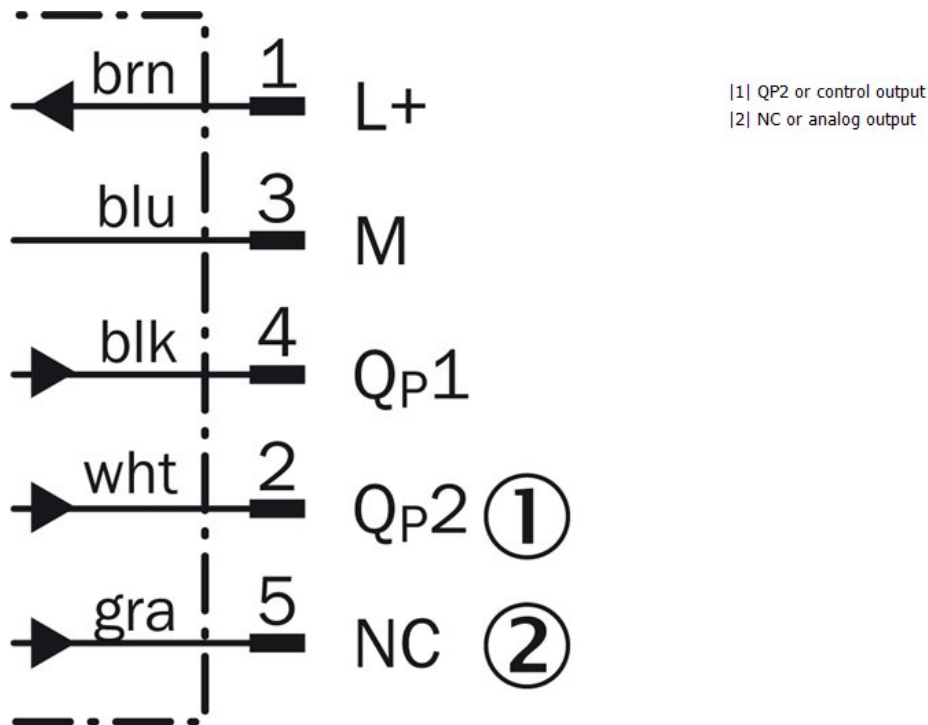


- |1| Control elements
- |2| LED signal strength indicator

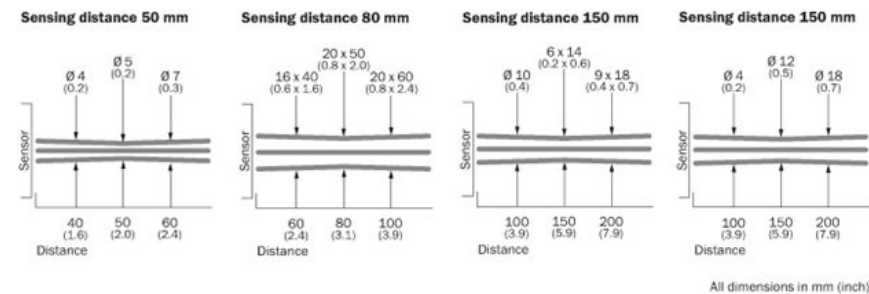
Connection type



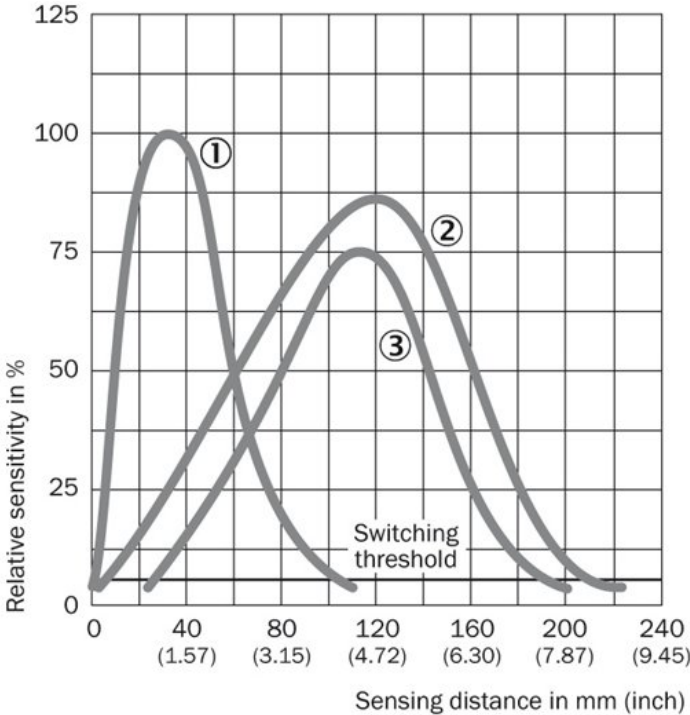
Connection diagram



Light spot size



Sensing distance



- [1] LUT1B sensing distance 50 mm; scan material: acryl orange
- [2] LUT1B sensing distance 150 mm; scan material: acryl orange
- [3] LUT1U sensing distance 150 mm; scan material: SICK Luminescence reference 100 %

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