



## Luminescence sensors LUT1

LUT1B-31325



**Model Name** > LUT1B-31325  
**Part No.** > 1027593



**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):	47.5 mm x 23 mm x 70 mm
Sensing distance <sup>1)</sup> :	50 mm
Operating range:	15 mm 60 mm
Light source <sup>2), 3)</sup> :	Blue LED
Light emission:	Long side
Light spot size:	5 mm x 5 mm
Receiving filters:	OG 590
Receiving range:	590 nm ... 750 nm
Adjustment:	Manual ("+" / "-" button)
Output function:	Light switching

<sup>1)</sup> From front edge of lens    <sup>2)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C    <sup>3)</sup> Wave length: 470 nm

**Mechanics/electronics**

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

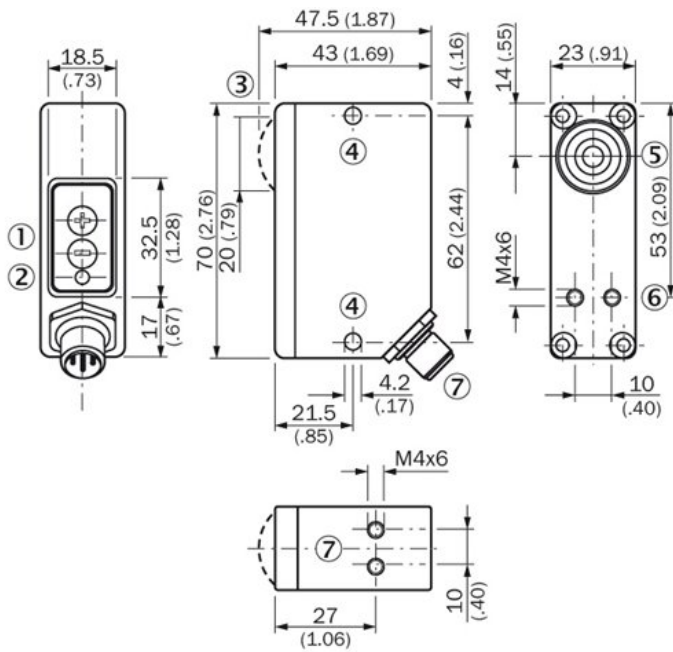
Protection class <sup>6)</sup> :	III
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	Ca. 240 g
Housing material:	Zinc diecast

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

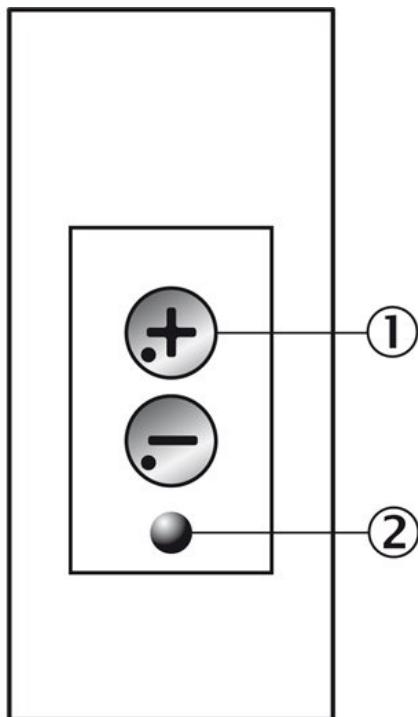


- [1] Control elements
- [2] LED signal strength indicator
- [3] Lens planar to surface for LUT1B-12205
- [4] Mounting hole
- [5] Optical axis
- [6] Threaded mounting hole
- [7] Connector M12

All dimensions in mm (inch)

## Adjustments

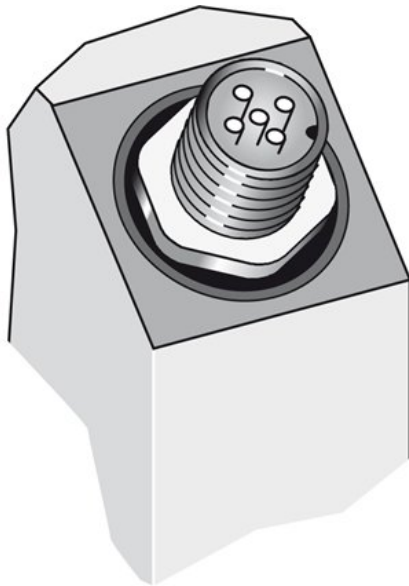
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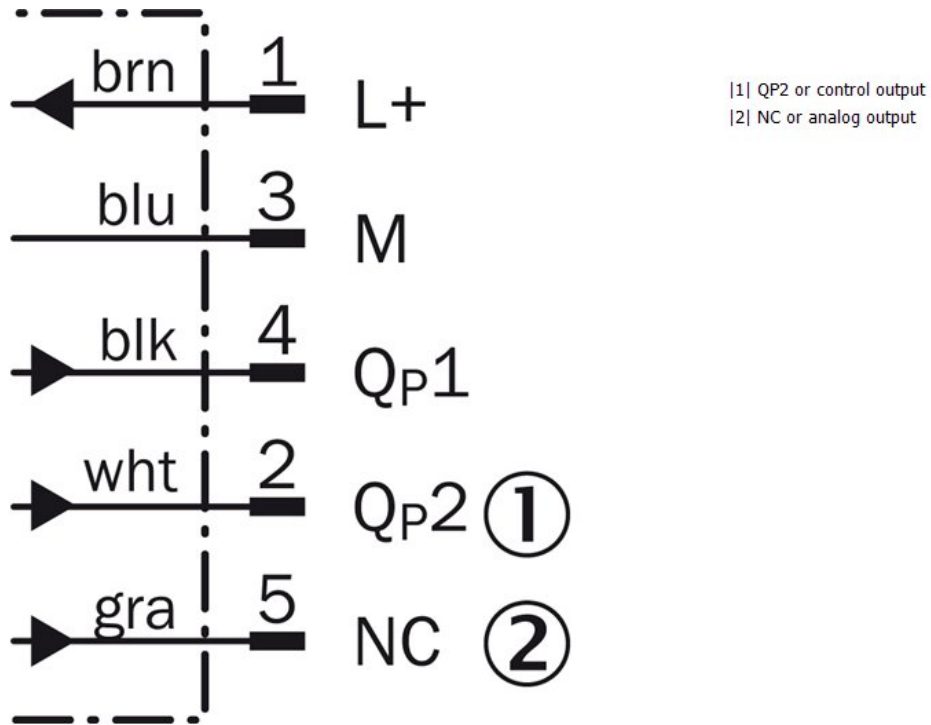
- |1| Control elements
- |2| LED signal strength indicator

## Connection type

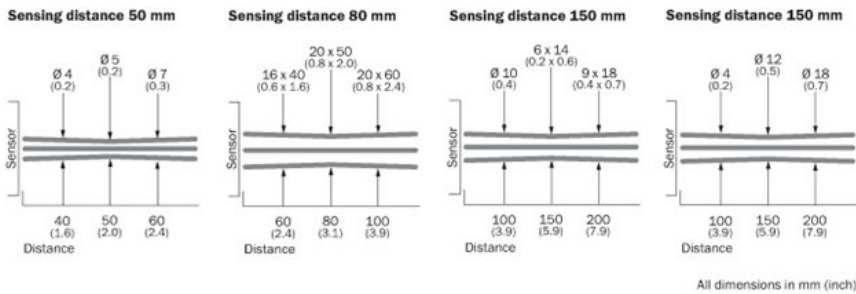
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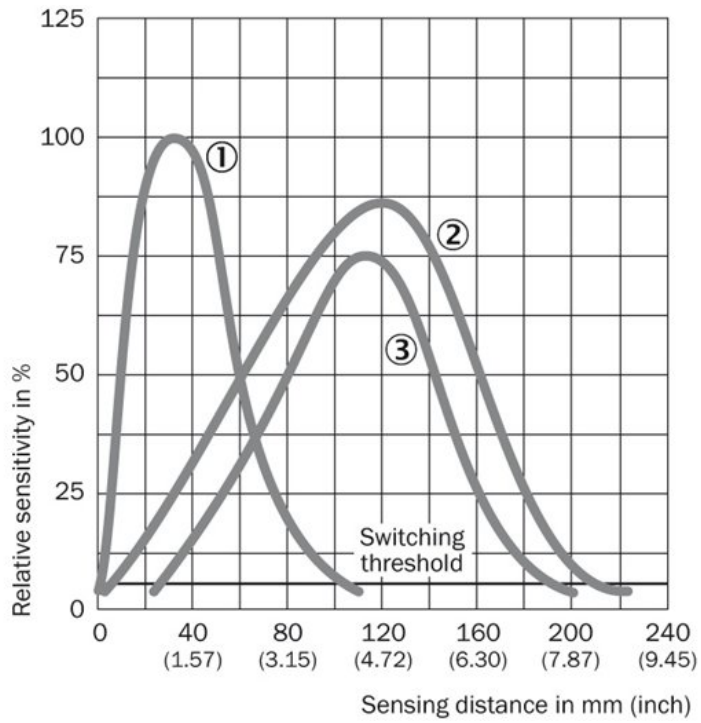
## Connection diagram



## 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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