



## Luminescence sensors LUT1

LUT1B-12205



**Model Name** > LUT1B-12205  
**Part No.** > 1027497



**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**

Sensing distance <sup>1)</sup> :	80 mm
Operating range:	60 mm 100 mm
Light source <sup>2)</sup> :	LED
Type of light:	Visible blue light
Wave length:	470 nm
Light emission:	Long side
Light spot size:	20 mm x 50 mm
Receiving filters:	OG 590
Receiving range:	590 nm ... 750 nm
Adjustment:	Manual ("+"/"-" button)
Output function:	Light switching
Dimensions (W x H x D):	23 mm x 70 mm x 47.5 mm
Housing design (light emission):	Rectangular

<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

**Mechanics/electronics**

Ripple <sup>1)</sup> :	< 5 Vpp
Power consumption <sup>2)</sup> :	< 40 mA
Switching frequency <sup>3)</sup> :	600 Hz
Response time <sup>4)</sup> :	850 µs
Output type:	PNP: HIGH = VS- ≤ 2 V/LOW approx. 0 V
Switching mode:	PNP

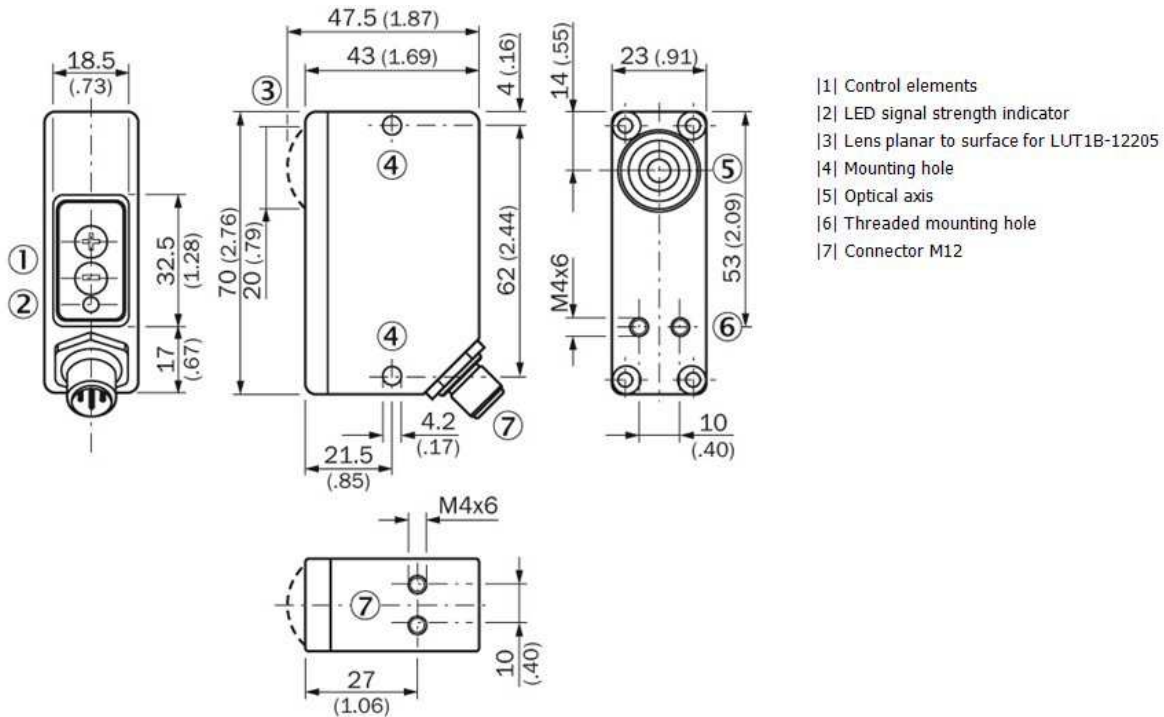
Analog output QA:	0.5 mA ... 10 mA <sup>5)</sup>
Output current I <sub>max.</sub> :	200 mA
Connection type:	Connector M12, 5-pin
Protection class <sup>6)</sup> :	III
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	240 g
Housing material:	Metal, Zinc diecast
Supply voltage:	10 V DC ... 30 V DC <sup>7)</sup>
Fieldbus interface:	-

<sup>1)</sup> May not exceed or fall short of V<sub>S</sub> tolerances <sup>2)</sup> Without load <sup>3)</sup> With light/dark ratio 1:1, no time delay <sup>4)</sup> Signal transit time with resistive load <sup>5)</sup> Only LUT1B-12205 <sup>6)</sup> Reference voltage DC 50 V <sup>7)</sup> Limit values; operation in short-circuit protected network max. 8 A

### Ambient data

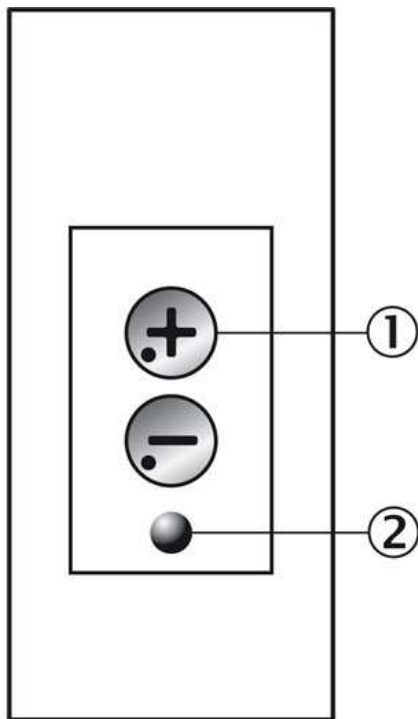
Shock load:	According to IEC 60068
Ambient operating temperature:	-20 °C ... +60 °C
Ambient storage temperature:	-40 °C ... +70 °C

### Dimensional drawing



## Adjustments

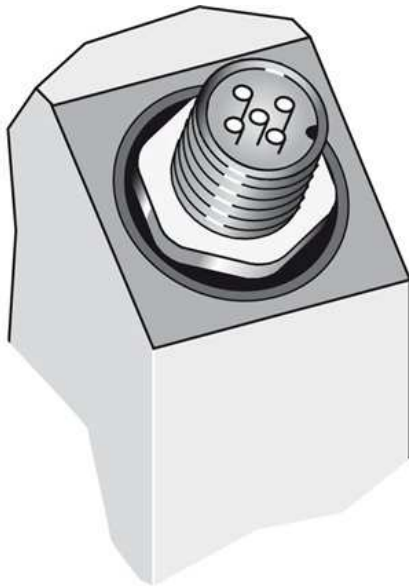
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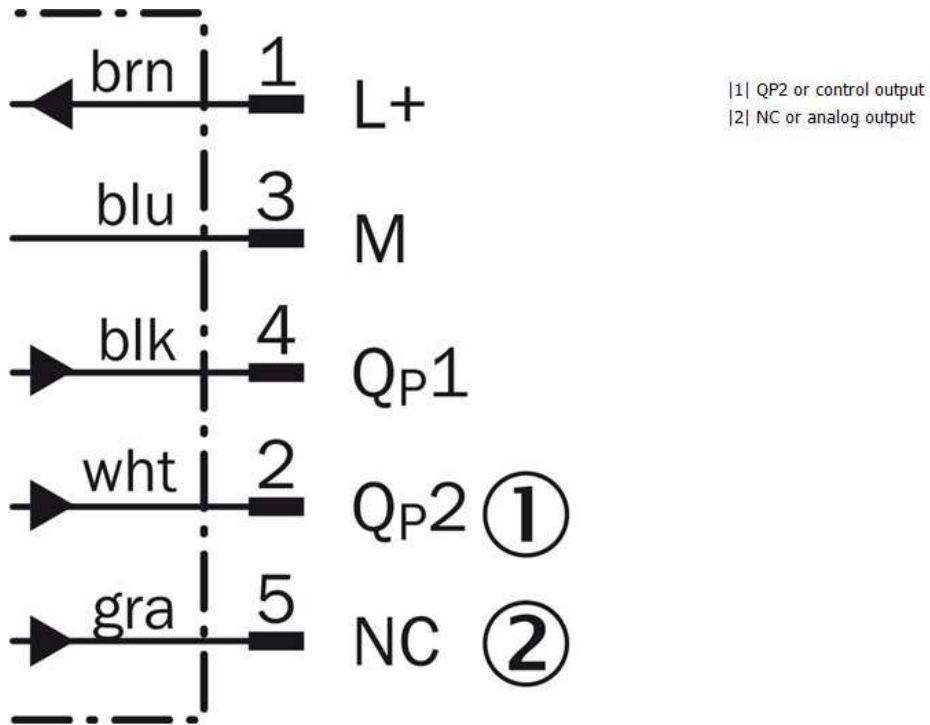
- |1| Control elements
- |2| LED signal strength indicator

## Connection type

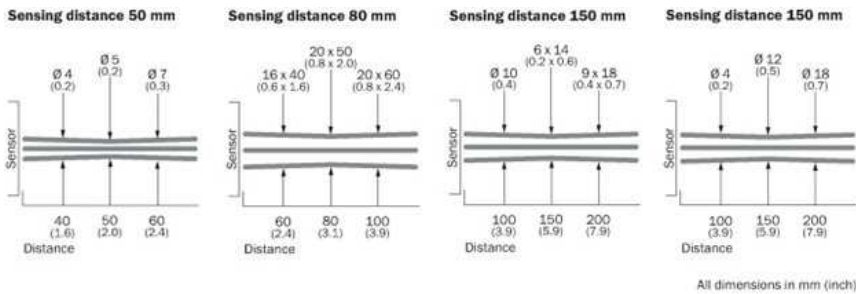
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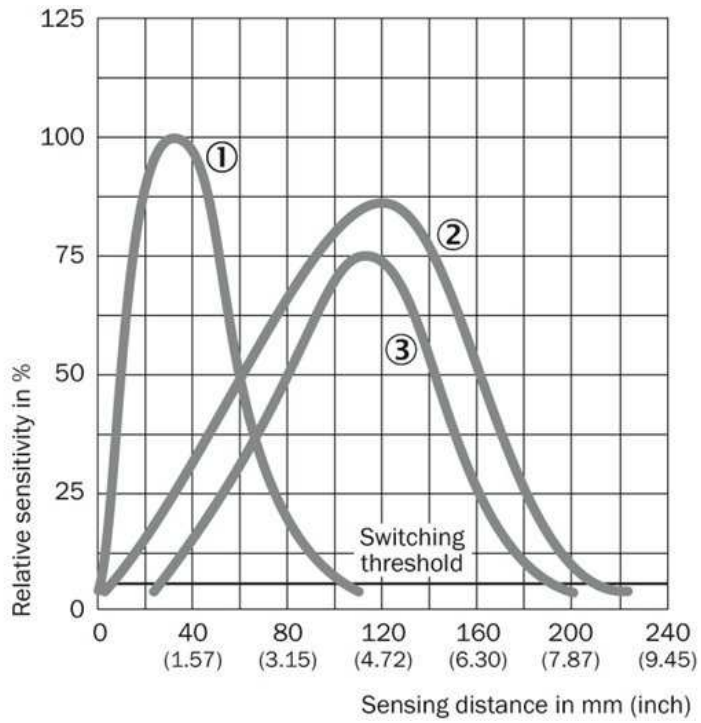
Connection diagram



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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