



## Luminescence sensors LUT3, LUT3-6

LUT3-650



**Model Name** > LUT3-650  
**Part No.** > 1015398



**At a glance**

- Tough metal housing
- Sensing distance: 10, 20 or 50 mm
- Sensing distances selectable through interchangeable lenses
- Transmitter LED UV (375 nm)

**Your benefits**

- Sensitivity of the sensor can be infinitely adjusted using a potentiometer, saves time and reduces costs
- Filters ensure that background luminescence is reliably suppressed, ensuring greater process reliability
- Interchangeable lenses for different sensing distances provide flexibility



**Features**

Dimensions (L x W x H):	80 mm x 30.4 mm x 53 mm
Sensing distance <sup>1)</sup> :	50 mm
Operating range:	30 mm 60 mm
Light source <sup>2), 3)</sup> :	UV-LED
Light emission:	Long side
Light spot size:	5 mm x 15 mm
Light spot direction:	Vertical
Receiving filters:	KV 418 (standard)
Receiving range:	450 nm ... 750 nm
Adjustment:	Manual (potentiometer)
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: 375 nm

**Mechanics/electronics**

Supply voltage V <sub>s</sub> <sup>1)</sup> :	DC 12 V ... 30 V
Ripple <sup>2)</sup> :	< 2 Vpp
Power consumption <sup>3)</sup> :	< 60 mA
Switching frequency <sup>4)</sup> :	1.5 kHz
Response time <sup>5)</sup> :	350 µs
Output type:	PNP: HIGH = V <sub>S</sub> - ≤ 3 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> :	100 mA

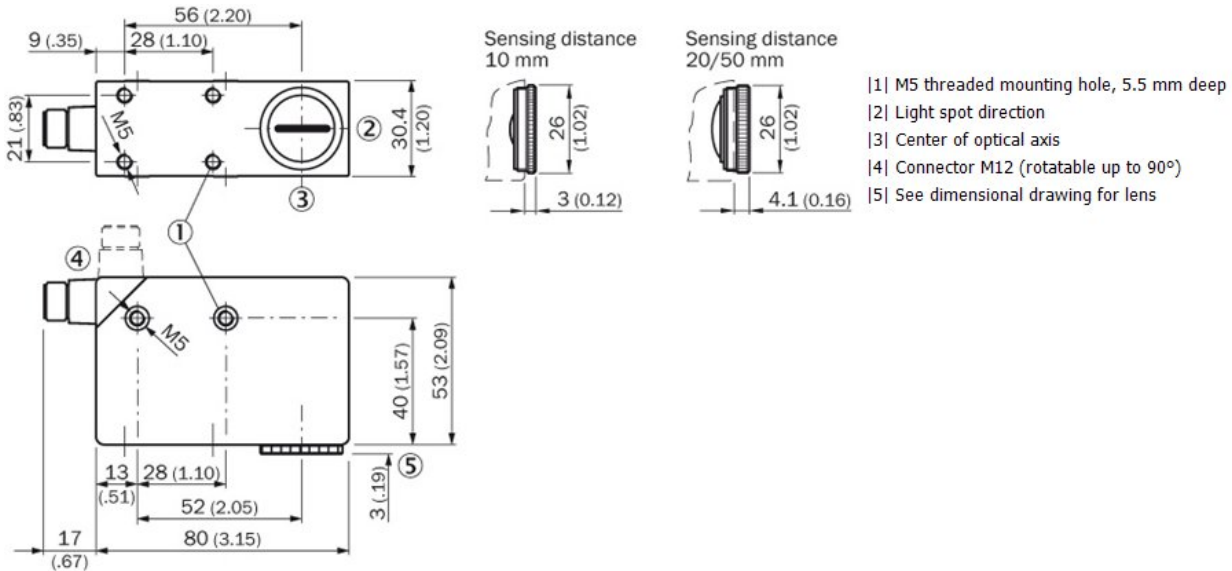
Connection type: Connector M12, 4-pin  
 Protection class <sup>6)</sup>: II  
 Circuit protection: Output Q short-circuit protected  
 Interference suppression  
 VS connections reverse-polarity protected  
 Enclosure rating: IP 67  
 Weight: Ca. 400 g  
 Housing material: Zinc diecast

<sup>1)</sup> Limit values: operation in short-circuit protected network max. 8 A <sup>2)</sup> May not exceed or fall short of  $V_S$  tolerances <sup>3)</sup> Without load <sup>4)</sup> With light/dark ratio 1:1 <sup>5)</sup>  
<sup>6)</sup> Reference voltage DC 50 V  
 Signal transit time with resistive load

**Ambient data**

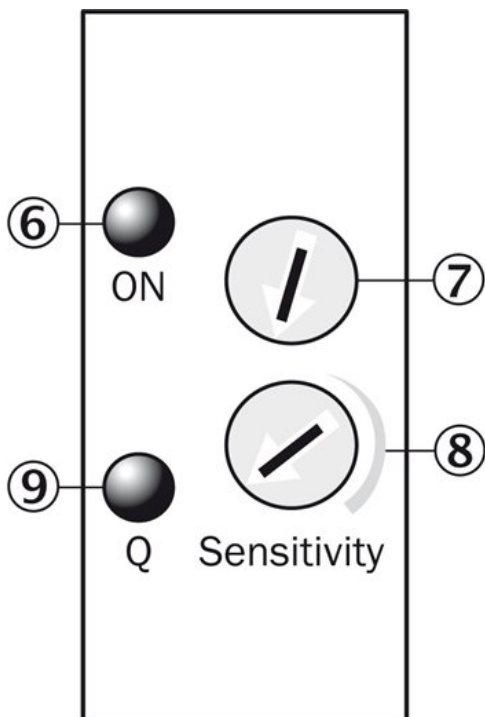
Ambient temperature: Operation: -10 ... 55 °C  
 Storage: -25 ... 75 °C  
 Shock load: According to IEC 60068

**Dimensional drawing**



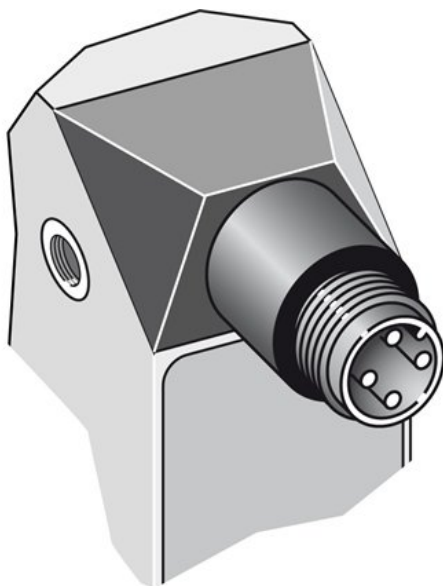
All dimensions in mm (inch)

## Adjustments

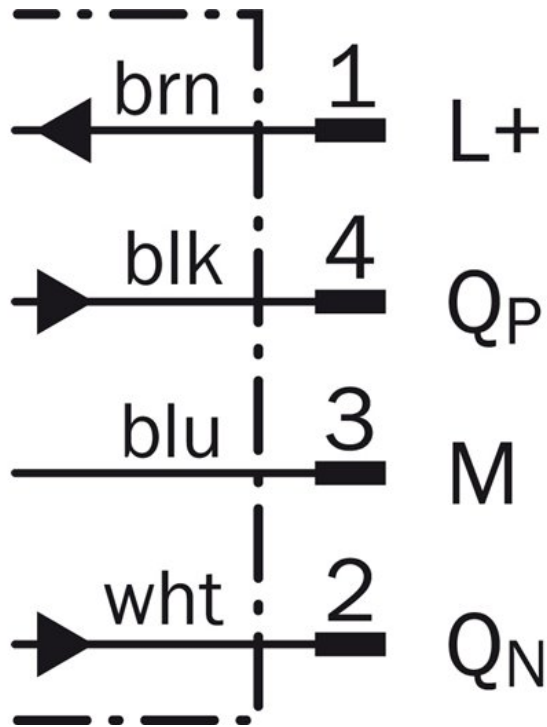


- |6| Function signal indicator (green)
- |7| not connected
- |8| Sensitivity adjustment
- |9| Function signal indicator (yellow), switching output

## Connection type

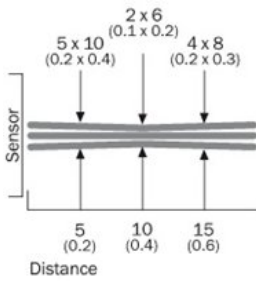


Connection diagram

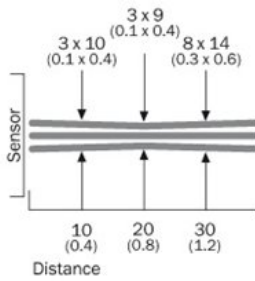


Light spot size

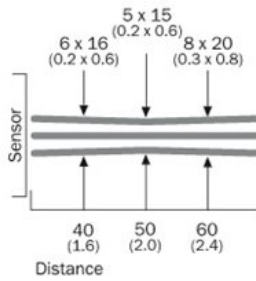
Sensing distance 10 mm



Sensing distance 20 mm

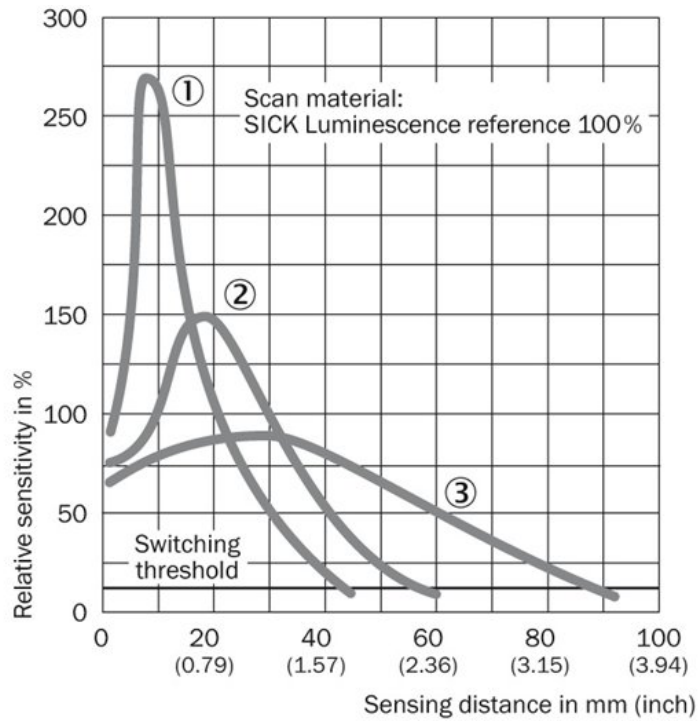


Sensing distance 50 mm



All dimensions in mm (inch)

## Sensing distance



- |1| Sensing distance 10 mm
- |2| Sensing distance 20 mm
- |3| Sensing distance 50 mm

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