



## Luminescence sensors LUT3, LUT3-6

LUT3-620



**Model Name** > LUT3-620  
**Part No.** > 1015397



**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**

Sensing distance <sup>1)</sup> :	20 mm
Operating range:	10 mm 35 mm
Light source <sup>2)</sup> :	LED
Type of light:	Ultraviolet light
Wave length:	375 nm
Light emission:	Long side
Light spot size:	3 mm x 9 mm
Light spot direction:	Vertical
Receiving filters:	KV 418 (standard)
Receiving range:	450 nm ... 750 nm
Adjustment:	Manual (potentiometer)
Output function:	Light switching
Dimensions (W x H x D):	30.4 mm x 53 mm x 80 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> :	< 2 Vpp
Current consumption <sup>2)</sup> :	< 60 mA
Switching frequency <sup>3)</sup> :	1.5 kHz
Response time <sup>4)</sup> :	350 µs
Output type:	NPN: HIGH = approx. VS / LOW ≤ 2 V PNP: HIGH = VS- ≤ 3 V / LOW = approx. 0 V

Switching mode:	PNP/NPN
Output current I <sub>max.</sub> :	100 mA
Connection type:	Connector M12, 4-pin
Protection class <sup>5)</sup> :	II
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	400 g
Housing material:	Metal, Zinc diecast
Supply voltage:	12 V DC ... 30 V DC <sup>6)</sup>
Fieldbus interface:	-

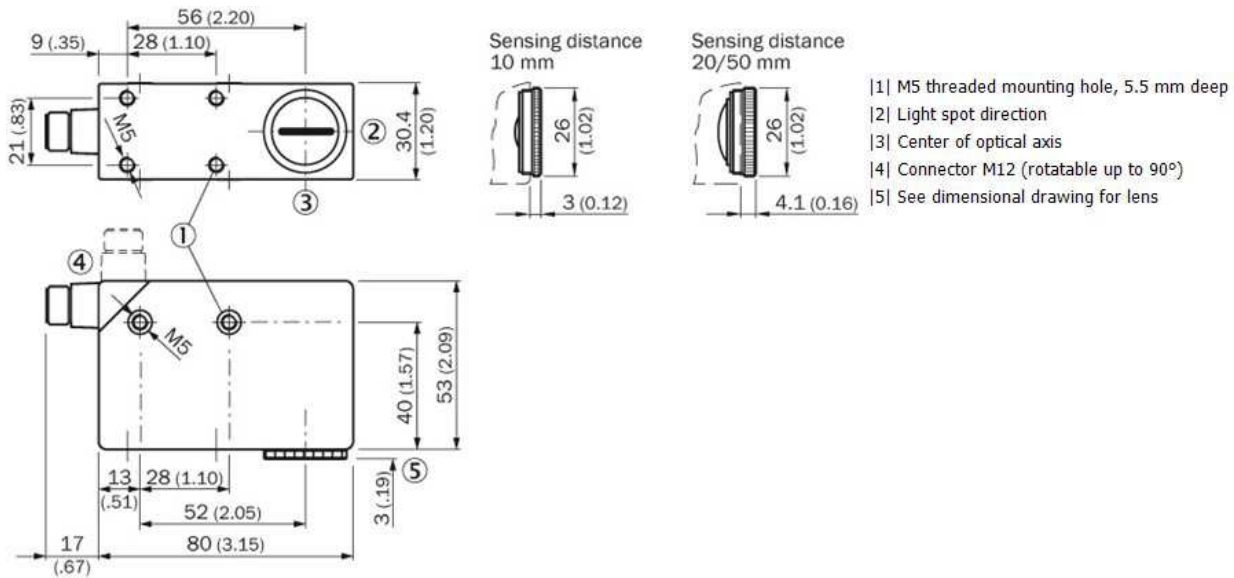
1) May not exceed or fall short of V<sub>S</sub> tolerances 2) Without load 3) With light/dark ratio 1:1 4) Signal transit time with resistive load 5) Reference voltage DC 50 V 6)

Limit values; operation in short-circuit protected network max. 8 A

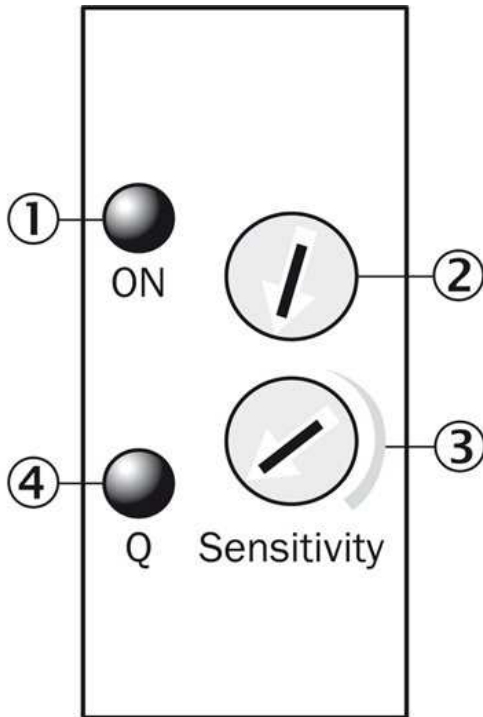
### Ambient data

Shock load:	According to IEC 60068
Ambient operating temperature:	-10 °C ... +55 °C
Ambient storage temperature:	-25 °C ... +75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493

### Dimensional drawing



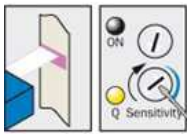
## Adjustments



- |1| Function signal indicator (green)
- |2| not connected
- |3| Sensitivity adjustment
- |4| Function signal indicator (yellow), switching output

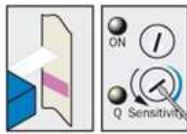
## Bedienhinweis

### 1. Position mark



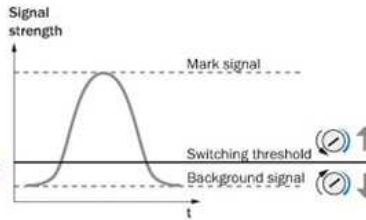
Turn "Sensitivity" rotary switch clockwise until yellow LED illuminates.

### 2. Position background



If yellow LED illuminates, turn "Sensitivity" rotary switch counter-clockwise until the yellow LED just goes out.

### Sensitivity setting

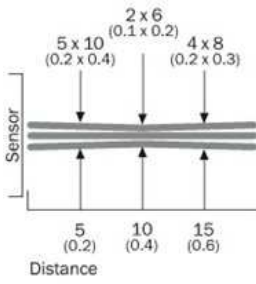


### Note

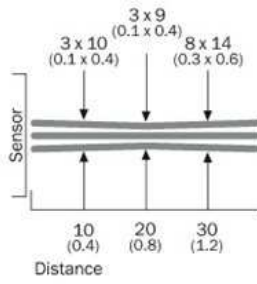
Adjustments are intended for luminescence background suppression.

## Light spot size

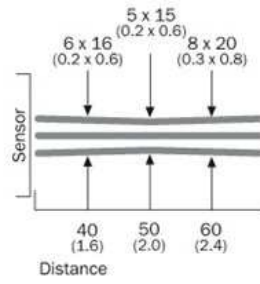
Sensing distance 10 mm



Sensing distance 20 mm

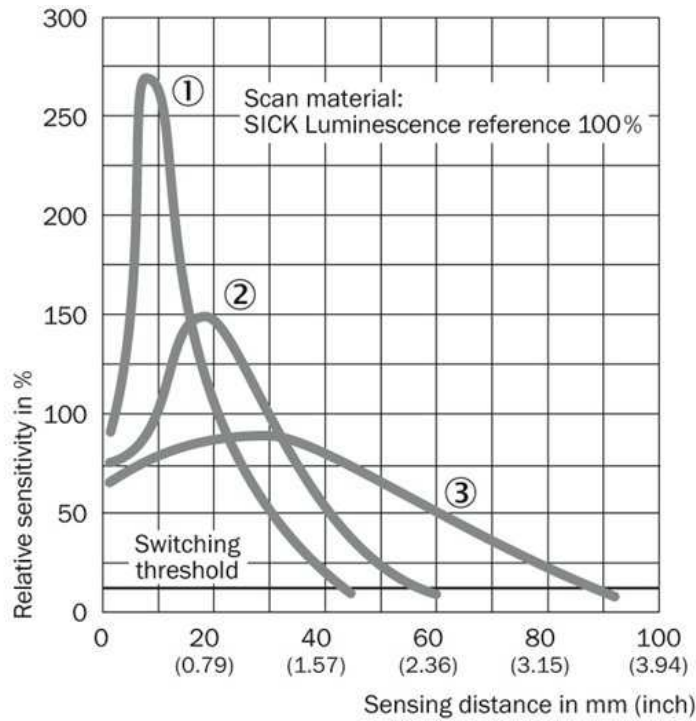


Sensing distance 50 mm



All dimensions in mm (inch)

## Sensing distance



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