



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

Sensing distance ¹⁾ :	50 mm
Operating range:	30 mm 60 mm
Light source ²⁾ :	LED
Type of light:	Ultraviolet light
Wave length:	375 nm
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
Dimensions (W x H x D):	30.4 mm x 53 mm x 80 mm
Housing design (light emission):	Rectangular

¹⁾ From front edge of lens ²⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

Ripple ¹⁾ :	< 2 Vpp
Current consumption ²⁾ :	< 60 mA
Switching frequency ³⁾ :	1.5 kHz
Response time ⁴⁾ :	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 _{max.} :	100 mA
Connection type:	Connector M12, 4-pin
Protection class ⁵⁾ :	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 ⁶⁾
Fieldbus interface:	-

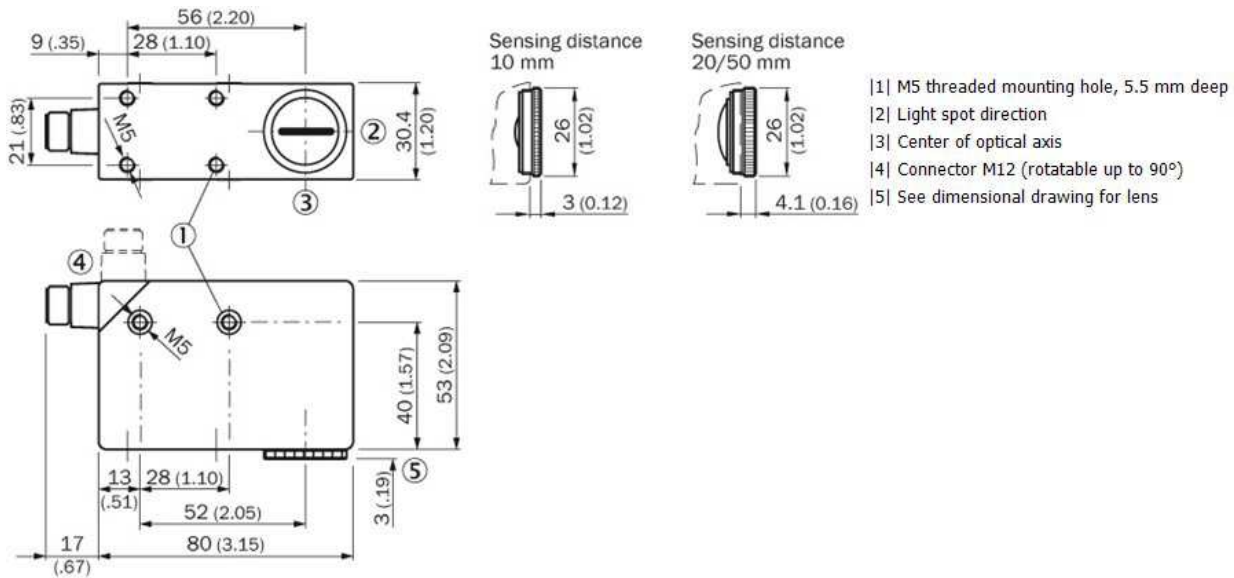
1) May not exceed or fall short of V_S tolerances 2) Without load 3) With light/dark ratio 1:1 4) Signal transit time with resistive load 5) Reference voltage DC 50 V 6)

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

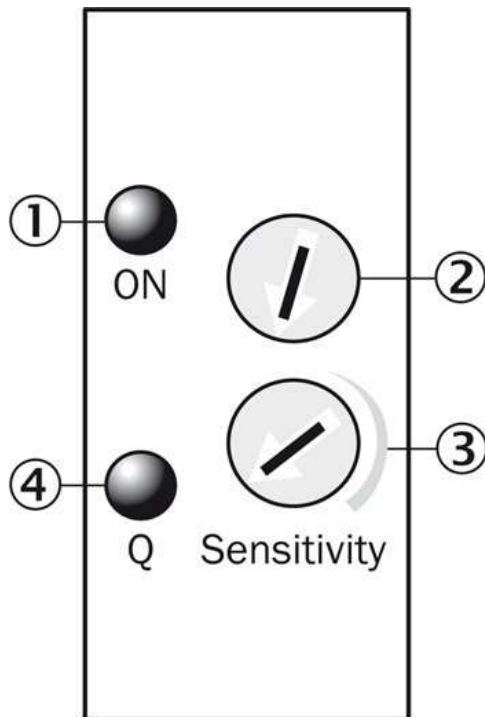
Ambient data

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



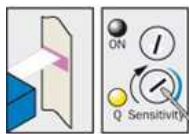
Adjustments



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

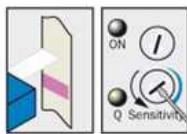
Bedienhinweis

1. Position mark



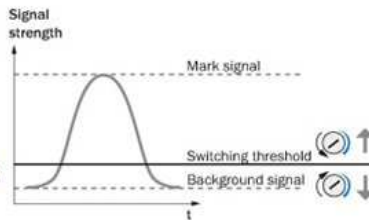
Turn "Sensitivity" rotary switch clockwise until yellow LED illuminates.

2. Position background



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

Sensitivity setting

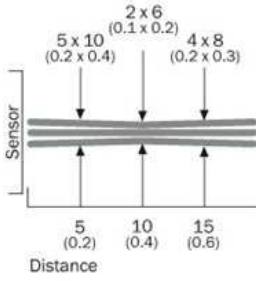


Note

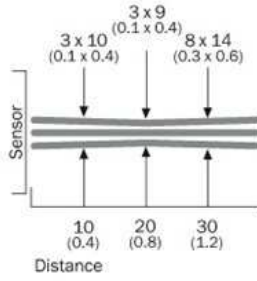
Adjustments are intended for luminescence background suppression.

Light spot size

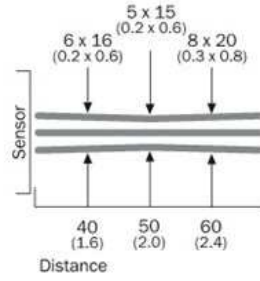
Sensing distance 10 mm



Sensing distance 20 mm

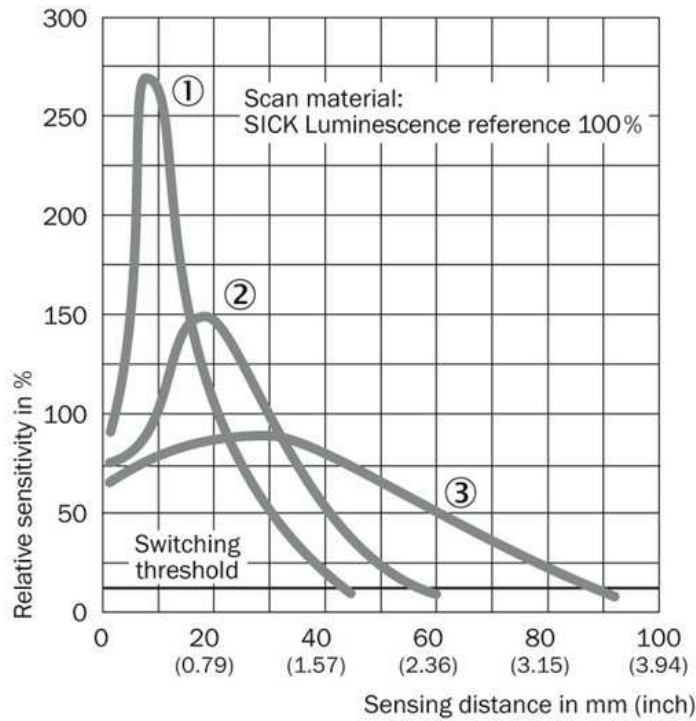


Sensing distance 50 mm



All dimensions in mm (inch)

Sensing distance



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