ONLINE DATA SHEET
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Luminescence sensors
LUT3, LUT3-8

LUT3-820

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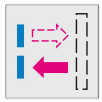
Luminescence sensors
LUT3, LUT3-8

Model Name > LUT3-820
Part No. > 1012868



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]:	20 mm
Light source [2]:	LED
Type of light:	Ultraviolet light
Wave length:	375 nm
Light spot size:	3 mm x 9 mm
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 Imax.:	100 mA
Connection type:	Connector M12, 5-pin

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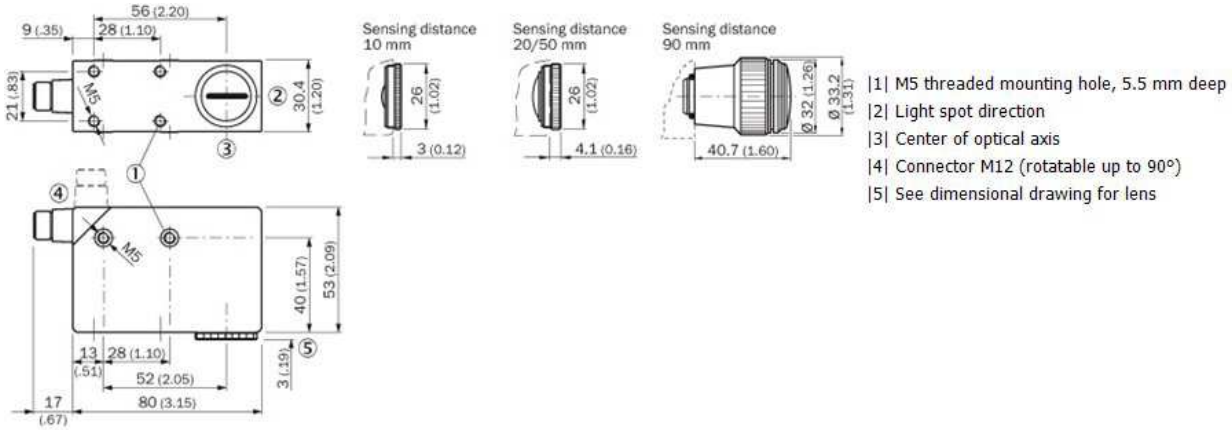
Protection class [5]:	II
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	400 g
Housing material:	Metal, Zinc diecast
Supply voltage:	12 V DC ... 30 V DC [6]
Fieldbus interface:	-

[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



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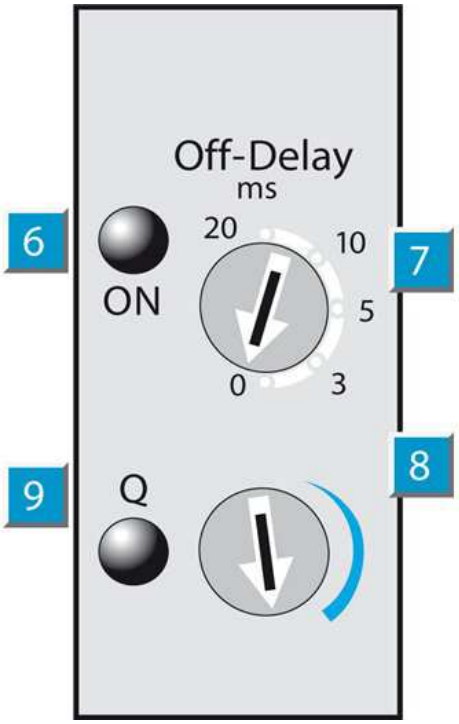
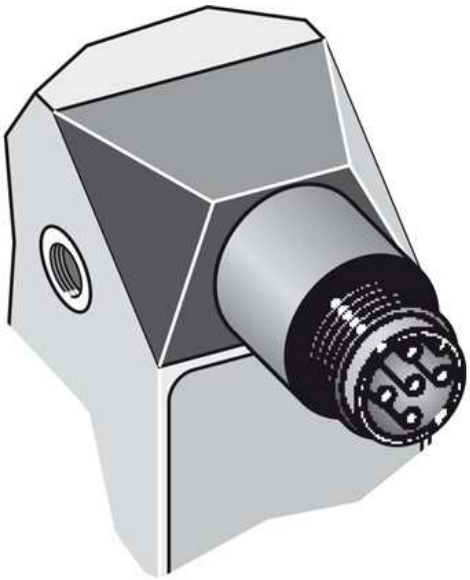
Adjustments



|6| Operating indicator
|7| time delay selector switch
|8| Sensitivity adjustment
|9| Output indicator

Connection type



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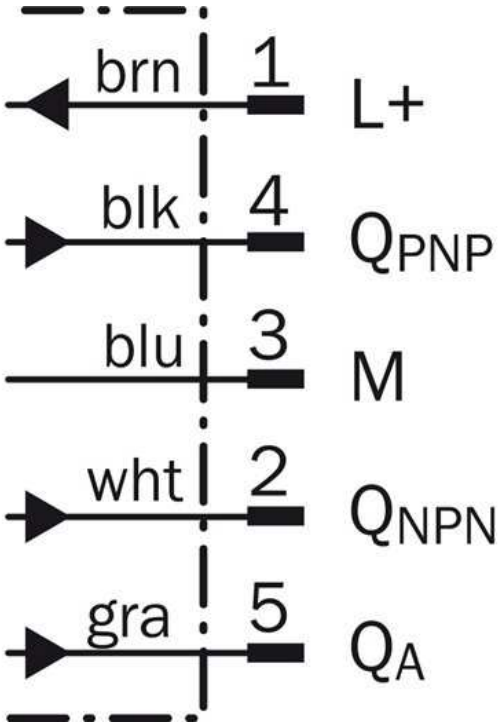
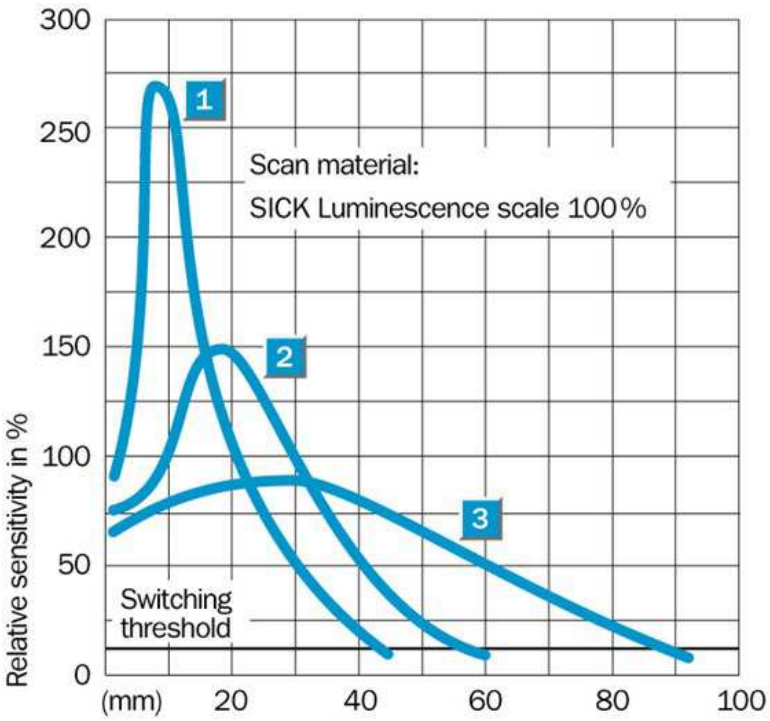
Connection diagram



Characteristic curve



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