



Luminescence sensors LUT8

LUT8U-11301



Model Name > LUT8U-11301
Part No. > 1047043



At a glance

- Tough metal housing
- Simple sensitivity adjustment in 8 stages
- Bar graph display provides information about the luminescence intensity
- Sensing distances selectable through interchangeable lenses
- Additional optical filters suppress background luminescence
- Fiber-optic cable connection (with 20 mm lens)
- Switching and analog output

Your benefits

- An 8-step rotary switch easily adjusts to accurately determine the switching output position for different materials
- Bar graph display provides continual process control through easy visualization of the luminescence intensity
- 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 ¹⁾ :	50 mm
Operating range:	20 mm 70 mm
Light source ²⁾ , ³⁾ :	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 (rotary switch)
Output function:	Light switching

¹⁾ From front edge of lens ²⁾ Average service life of 100,000 h at T_A = +25 °C ³⁾ Wave length: 375 nm

Mechanics/electronics

Supply voltage Vs ¹⁾ :	DC 12 V ... 30 V
Ripple ²⁾ :	< 5 Vpp
Power consumption ³⁾ :	< 100 mA

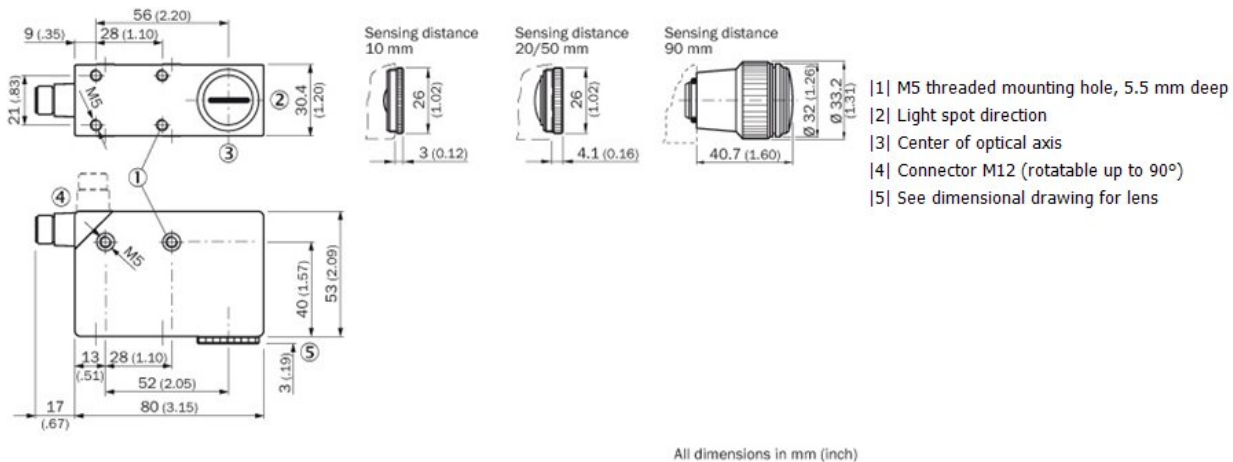
Switching frequency ⁴⁾ :	2.5 kHz
Response time ⁵⁾ :	200 µs
Output type:	NPN: HIGH = approx. VS / LOW ≤ 2 V PNP: HIGH = VS- ≤ 3 V / LOW = approx. 0 V
Switching mode:	PNP/NPN
Analog output QA:	0 mA ... 13 mA
Output current I _{max} :	100 mA
Connection type:	Connector M12, 5-pin
Protection class ⁶⁾ :	II
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

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

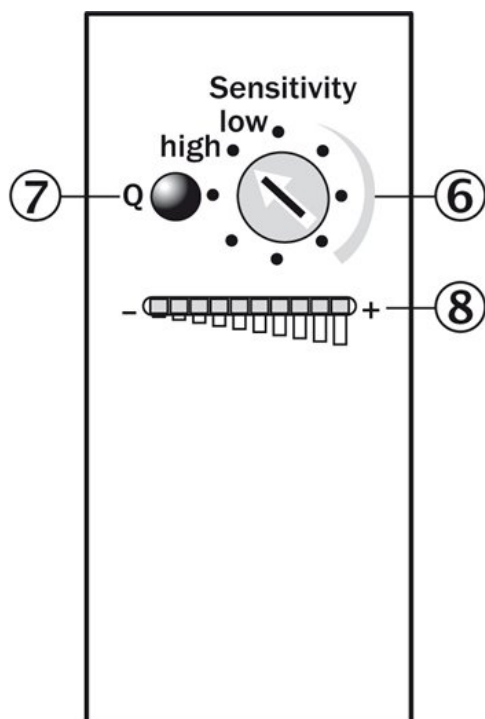
Ambient data

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

Dimensional drawing



Adjustments

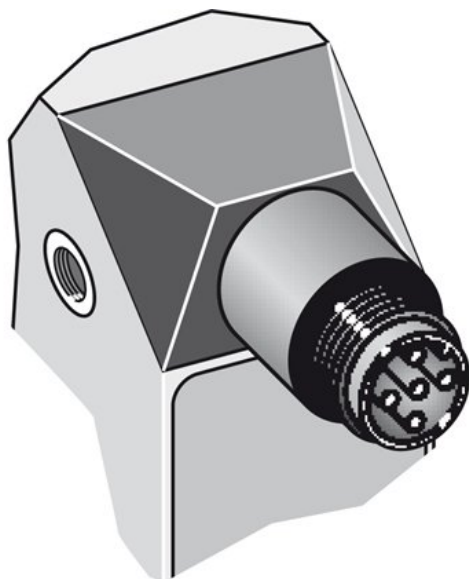


|6| Rotary selection switch

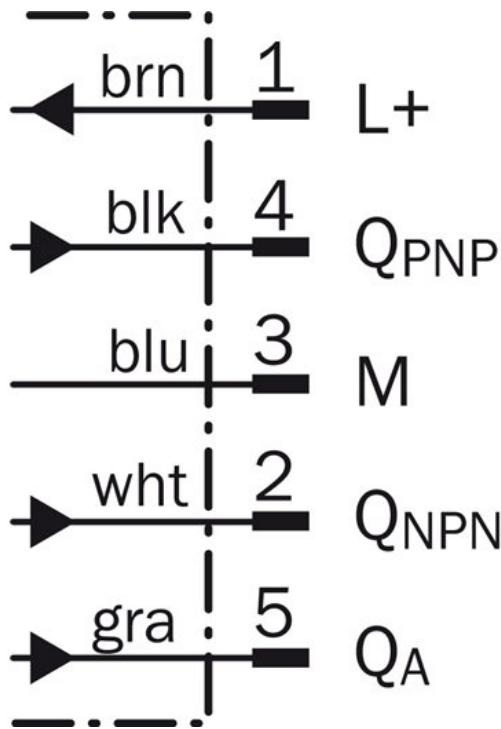
|7| Function signal indicator (yellow), switching output

|8| Bar graph (green), Power on left LED

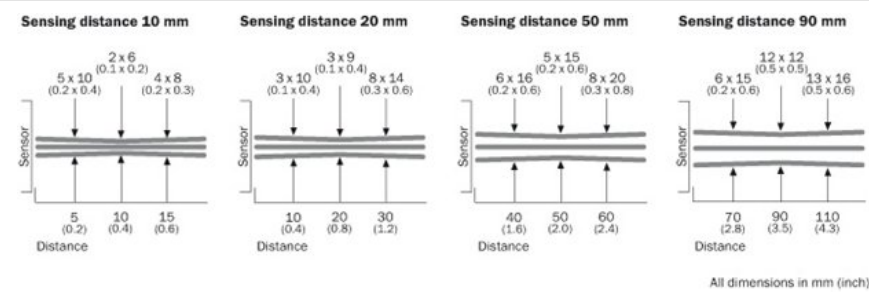
Connection type



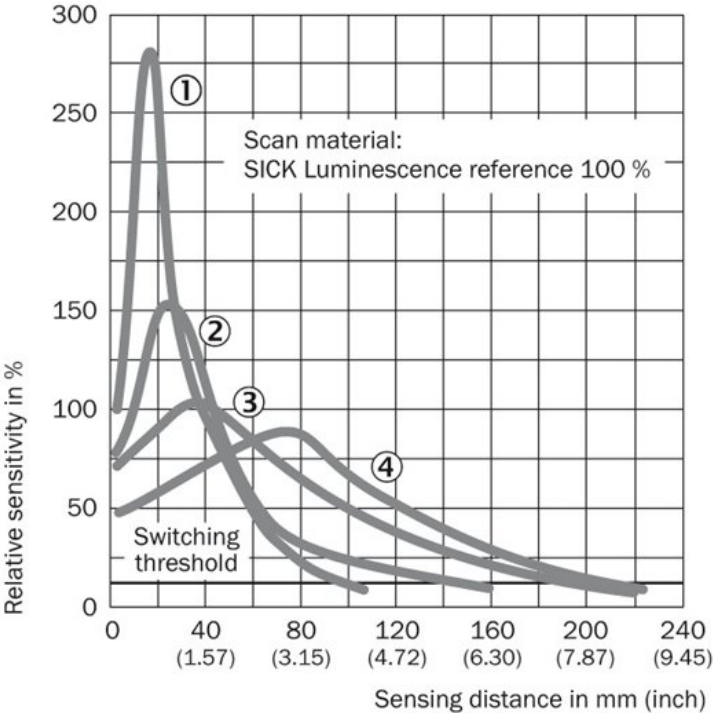
Connection diagram



Light spot size



Sensing distance



- |1| Sensing distance 10 mm
- |2| Sensing distance 20 mm
- |3| Sensing distance 50 mm
- |4| Sensing distance 90 mm

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