



Luminescence sensors LUT9

LUT9U-11326



Model Name > [LUT9U-11326](#)
Part No. > [1047053](#)



At a glance

- Simple teach-in
- Operating range up to 250 mm
- Version with IO-Link for remote monitoring
- Bar graph display provides information about the luminescence intensity
- High speed (6.5 kHz), standard (2.5 kHz), high resolution (500 Hz) models
- Additional optical filters suppress background luminescence
- Fiber-optic cable connection (with 20 mm lens)
- Switching and analog output

Your benefits

- Simple sensitivity adjustment via teach-in for optimum adaptation to the application
- Long sensing distance tolerance leads to less mechanical height adjustments of the sensor on the machine
- Using IO-Link, the sensor can be configured and monitored by the central control system, enabling simple, cost-effective diagnostics and data collection
- 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 and the second light exit provide flexibility
- High detection reliability ensures the process and reduces downtime
- Select speed or high resolution, making it ideal for any application.



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:	RG 610
Receiving range:	610 nm ... 750 nm
Adjustment:	Static 2-point teach-in with manual fine adjustment
Output function ⁴⁾ :	Light switching

1) From front edge of lens 2) Average service life of 100,000 h at $T_A = +25\text{ °C}$ 3) Wave length: 375 nm 4) L/D switching via teach-in or IO-Link

Mechanics/electronics

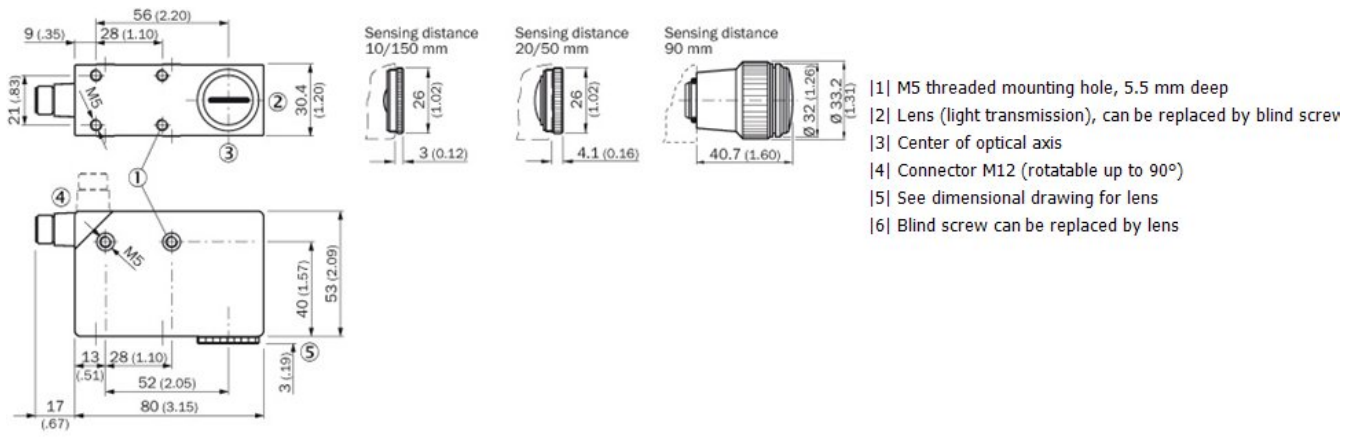
Supply voltage V_S ¹⁾ :	DC 10 V ... 30 V
Ripple ²⁾ :	< 5 Vpp
Power consumption ³⁾ :	< 100 mA
Switching frequency ⁴⁾ :	500 Hz 2.5 kHz 6.5 kHz, Adjustable
Response time ⁵⁾ :	1 ms 200 μ s 75 μ s
Output type:	NPN: HIGH = approx. V_S / LOW ≤ 2 V PNP: HIGH = $V_S - \leq 2$ V / LOW approx. 0 V
Switching mode:	PNP/NPN
Analog output QA:	0 mA ... 13 mA
Output current $I_{max.}$:	100 mA
Time delay:	0 ms / 10 ms / 20 ms, Adjustable
Connection type:	Connector M12, 5-pin (standard)
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, no time delay 5) Signal transit time with resistive load 6) Reference voltage DC 50 V

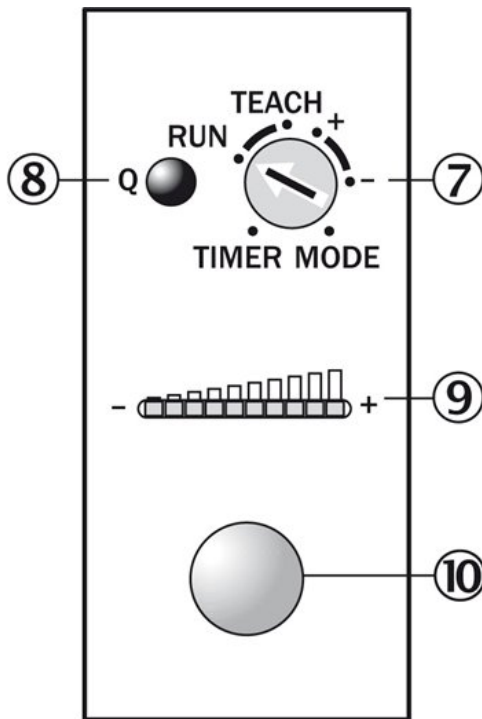
Ambient data

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

Dimensional drawing

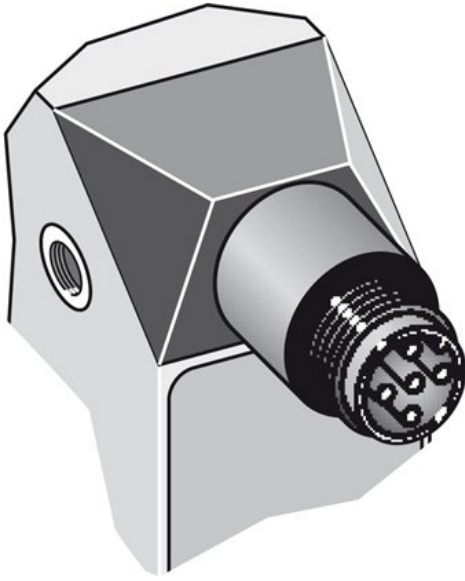


Adjustments

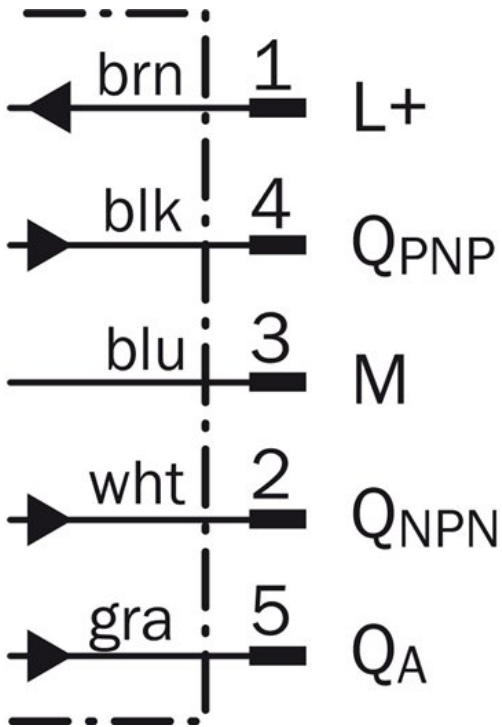


- [7] Rotary selection switch
- [8] Function signal indicator (yellow), switching output
- [9] Bar graph (green), Power on left LED
- [10] Teach-in button

Connection type

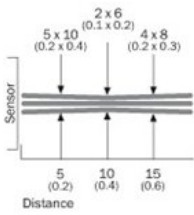


Connection diagram

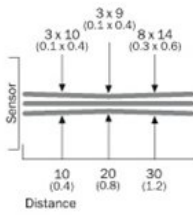


Light spot size

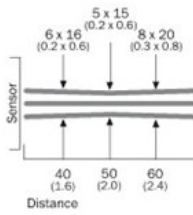
Sensing distance 10 mm



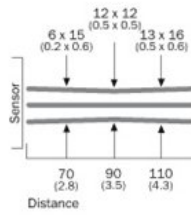
Sensing distance 20 mm



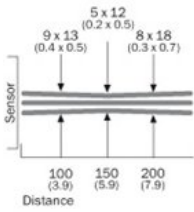
Sensing distance 50 mm



Sensing distance 90 mm

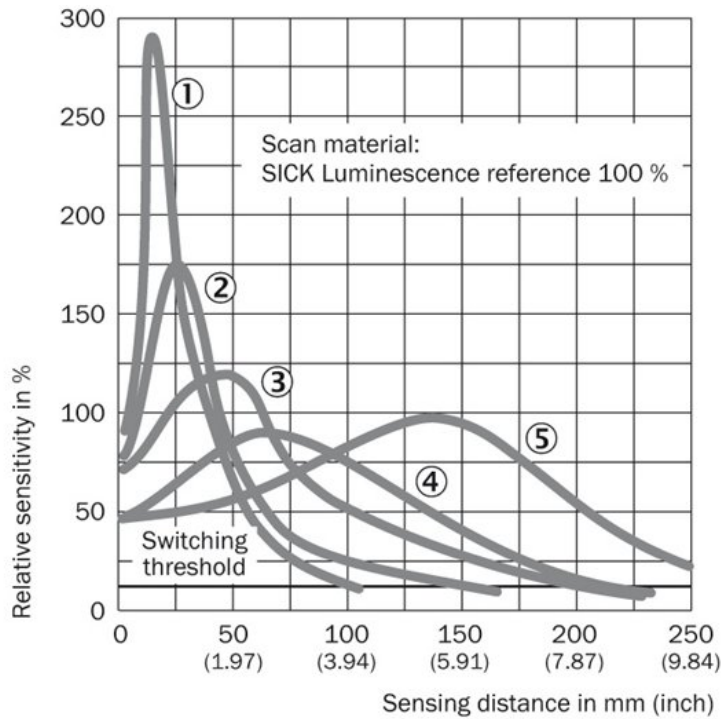


Sensing distance 150 mm



All dimensions in mm (inch)

Sensing distance



- 1| Sensing distance 10 mm
- 2| Sensing distance 20 mm
- 3| Sensing distance 50 mm
- 4| Sensing distance 90 mm
- 5| Sensing distance 150 mm

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