



Luminescence sensors LUT9

LUT9U-P120L



Model Name > **LUT9U-P120L**
Part No. > **1046188**



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⁾ :	20 mm
Operating range:	10 mm 40 mm
Light source ²⁾ , ³⁾ :	UV-LED
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:	IO-Link (optional)
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

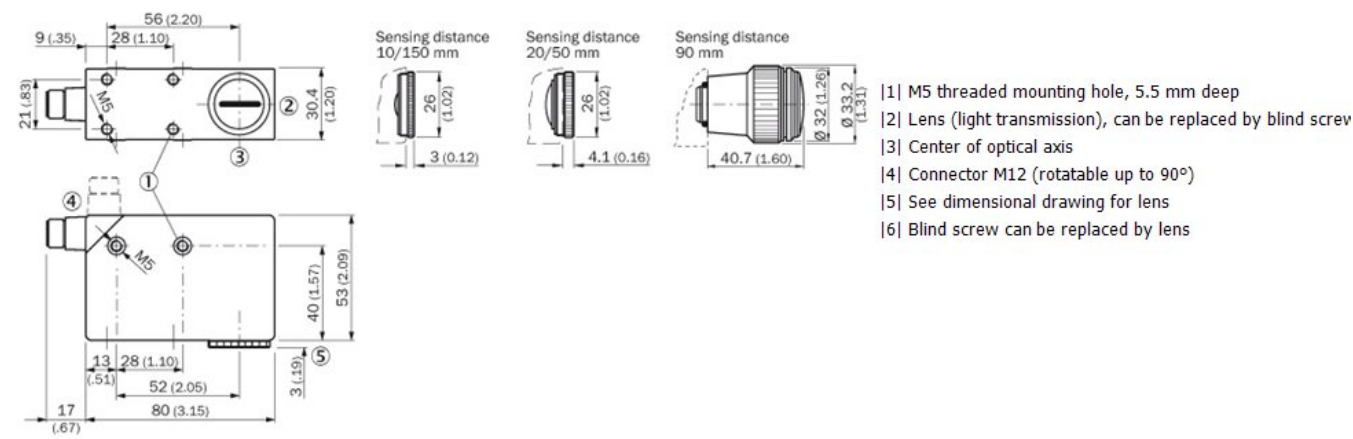
Supply voltage V_s ¹⁾ :	DC 10 V ... 30 V
Ripple ²⁾ :	< 5 Vpp
Power consumption ³⁾ :	< 100 mA
Switching frequency ⁴⁾ :	500 Hz 2.5 kHz 6.5 kHz, Adjustable
Response time ⁵⁾ :	1 ms 200 µs 75 µs
Output type:	PNP: HIGH = $V_s - \leq 2\text{ V}$ / LOW approx. 0 V
Switching mode:	PNP, IO-Link
Analog output QA:	0 mA ... 13 mA
Output current I_{max} :	100 mA
Time delay:	0 ms / 10 ms / 20 ms, Adjustable
Connection type:	Connector M12, 4-pin (IO-Link)
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

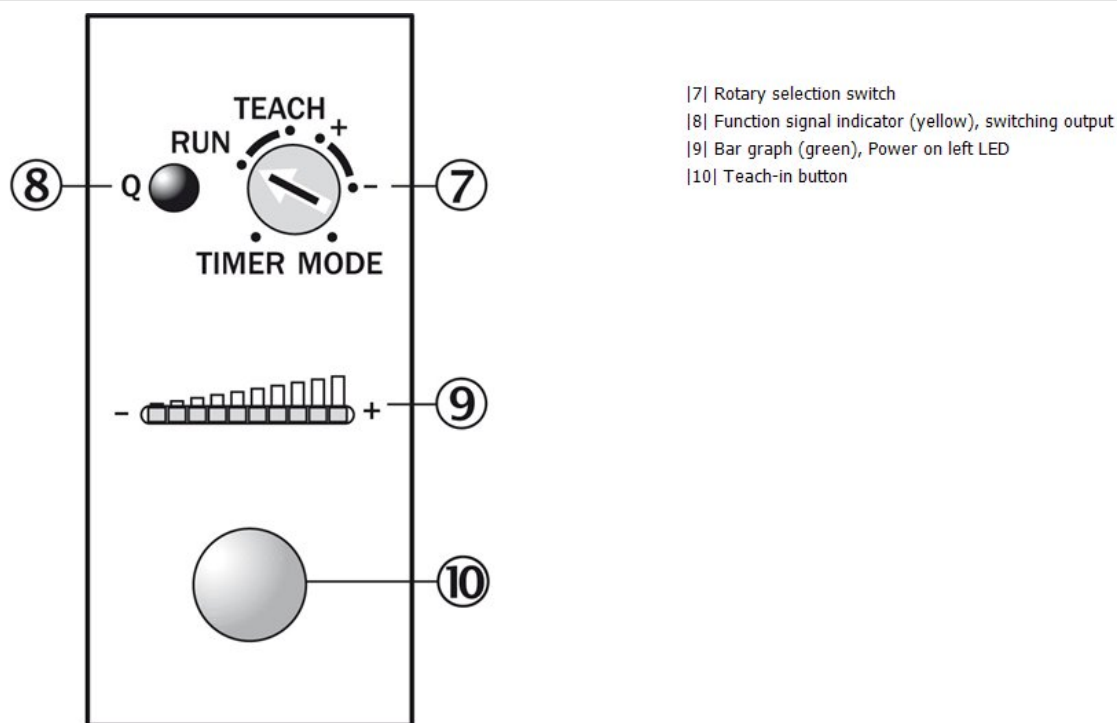
Ambient data

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

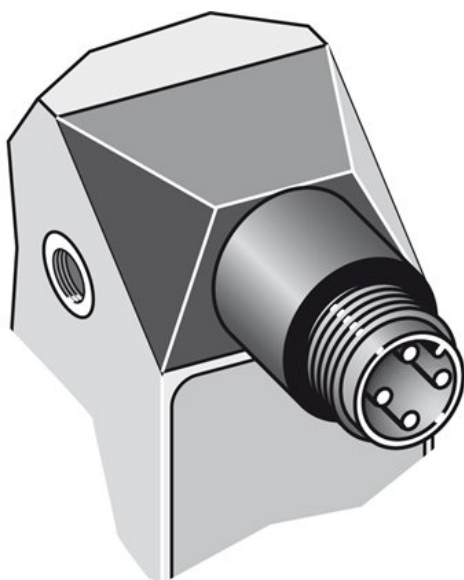
Dimensional drawing



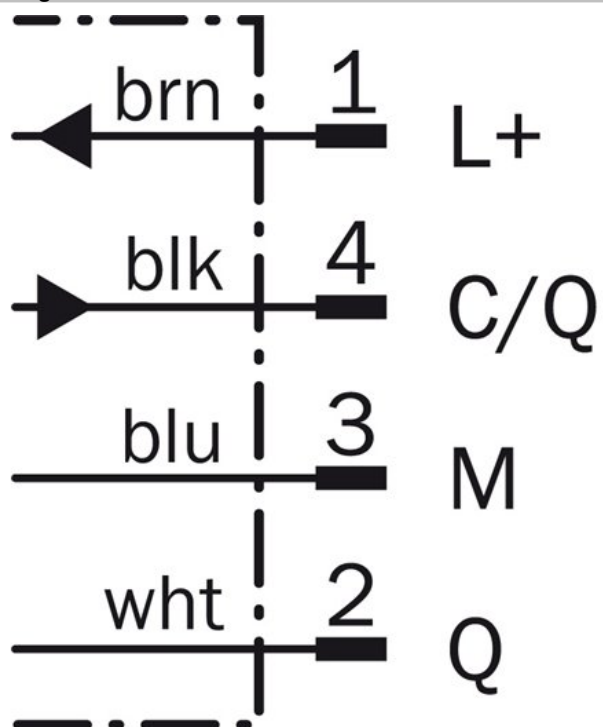
Adjustments



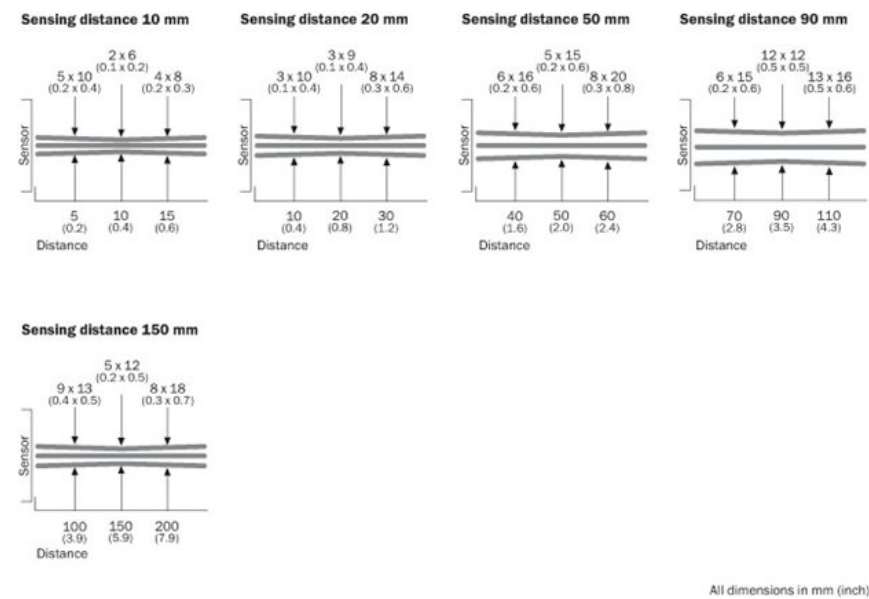
Connection type



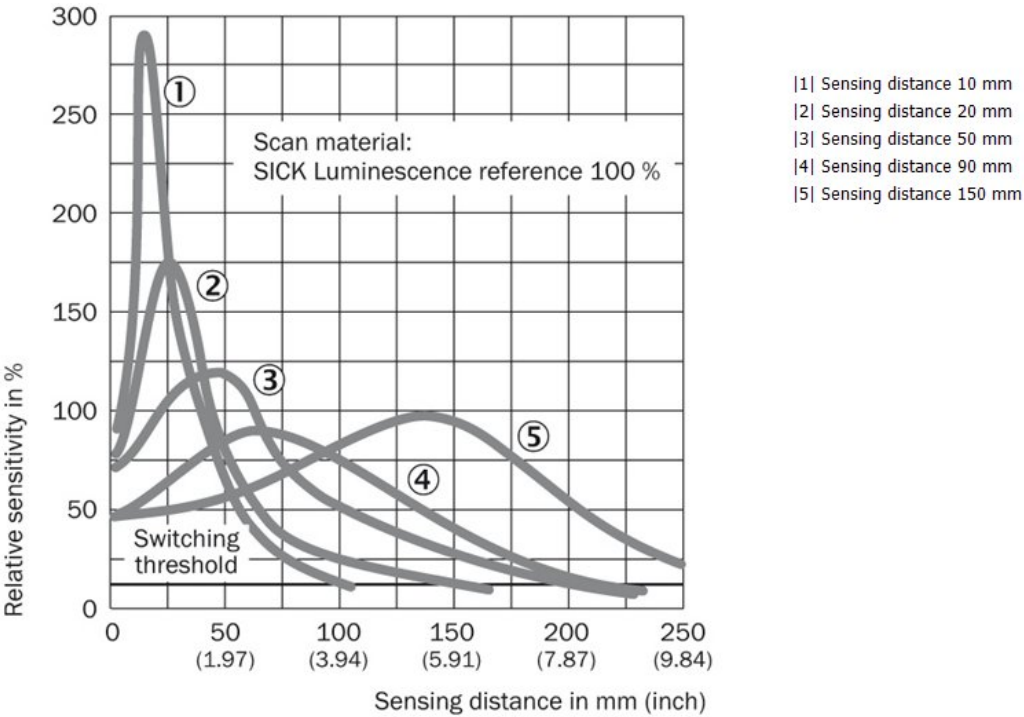
Connection diagram



Light spot size



Sensing distance



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