



LUT9

The new standard for high-performance luminescence sensors





Technical data overview

Sensing distance	20 mm, 20 mm ¹⁾ 10 mm, 10 mm ¹⁾ 50 mm, 50 mm ¹⁾ 90 mm, 90 mm ¹⁾ 150 mm, 150 mm ¹⁾
Type of light	LED, UV ²⁾ LED, blue ²⁾
Light emission	Long side / Long and short side, exchangeable (depending on type)
Switching frequency	0.5 kHz / 2.5 kHz / 6.5 kHz ³⁾
Response time	1 ms / 200 µs / 75 µs ⁴⁾
Analog output Q_A	0 mA ... 13 mA
Adjustment	Static 2-point teach-in with manual fine adjustment
Connection type	Male connector M12, 5-pin / male connector M12, 4-pin (depending on type)

¹⁾ From leading edge of lens.

²⁾ Average service life: 100,000 h at T_U = +25 °C.

³⁾ With light/dark ratio 1:1, without timer stage.

⁴⁾ Signal transit time with resistive load.

Product description

The LUT9 luminescence sensor offers a long sensing distance and remote monitoring capabilities via IO-Link. With a sensing distance of up to 250 mm, the LUT9 sets a new standard for luminescence sensors. Due to the long distances possible between the sensor and the object, marks on lumber with varying thicknesses, for example, can be reliably detected without mechanical adjustment of the sensors. In addition, the teach function and manual fine adjustment allow for maximum process reliability. The LUT9 version with IO-Link can actively be integrated into the machine control logic, configured/monitored from the controller, and used for process data collection. Especially helpful is a bar graph display on the device indicating the luminescence intensity.

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.

Ordering information

Other models and accessories → www.sick.com/LUT9

- **Light source:** LED, UV
- **Communication interface:** -

Sensing distance	Switching output	Switching mode	Light spot size	Light spot direction	Light emission	Connection type Detail	Type	Part no.
≤ 10 mm	PNP, NPN	Light switching	2 mm x 6 mm	Vertical	Long side	Male connector M12, 5-pin	LUT9U-11106	1047049
≤ 20 mm	PNP, NPN	Light switching	3 mm x 9 mm	Vertical	Long and short side, exchangeable	Male connector M12, 5-pin	LUT9U-12206	1046749
						Male connector M12, 5-pin	LUT9U-11206	1047050
					Male connector M12, 5-pin	LUT9U-11216	1082039	
≤ 50 mm	PNP, NPN	Light switching	5 mm x 15 mm	Vertical	Long and short side, exchangeable	Male connector M12, 5-pin	LUT9U-12306	1047055
						Male connector M12, 5-pin	LUT9U-11306	1046712
					Male connector M12, 5-pin	LUT9U-11316	1047052	
					Male connector M12, 5-pin	LUT9U-11326	1047053	
					Male connector M12, 5-pin	LUT9U-11336	1047054	
≤ 90 mm	PNP, NPN	Light switching	12 mm x 12 mm	Vertical	Long side	Male connector M12, 5-pin	LUT9U-11406	1047051
≤ 150 mm	PNP, NPN	Light switching	5 mm x 12 mm	Vertical	Long side	Male connector M12, 5-pin	LUT9U-11606	1047414

- **Light source:** LED, blue
- **Communication interface:** -

Sensing distance	Switching output	Switching mode	Light spot size	Light spot direction	Light emission	Connection type Detail	Type	Part no.
≤ 150 mm	PNP, NPN	Light switching	5 mm x 12 mm	Vertical	Long side	Male connector M12, 5-pin	LUT9B-11626	1047056

- **Light source:** LED, UV
- **Communication interface:** IO-Link

Sensing distance	Switching output	Switching mode	Light spot size	Light spot direction	Light emission	Connection type Detail	Type	Part no.
≤ 20 mm	NPN	Light switching	3 mm x 9 mm	Vertical	Long side	Male connector M12, 4-pin	LUT9U-N120L	1046189
						Male connector M12, 4-pin	LUT9U-P120L	1046188
	PNP	Light switching	3 mm x 9 mm	Vertical	Long side	Male connector M12, 4-pin	LUT9U-P124L	1079119

Sensing distance	Switching output	Switching mode	Light spot size	Light spot direction	Light emission	Connection type Detail	Type	Part no.
≤ 50 mm	NPN	Light switching	5 mm x 15 mm	Vertical	Long side	Male connector M12, 4-pin	LUT9U-N130L	1046190
	PNP	Light switching	5 mm x 15 mm	Vertical	Long side	Male connector M12, 4-pin	LUT9U-P130L	1045606
							LUT9U-P139LS06	1135293

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SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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