



LUT1

Compact sensor for long sensing distances

LUMINESCENCE SENSORS

SICK
Sensor Intelligence.



Technical data overview

Sensing distance	50 mm ¹⁾ 150 mm ¹⁾ 70 mm, 80 mm ¹⁾
Type of light	LED, blue ²⁾ LED, Ultraviolet light ²⁾
Light emission	Long side
Switching frequency	600 Hz ³⁾ 6 kHz ³⁾
Response time	850 μs ⁴⁾ 85 μs ⁴⁾ 8 ms ⁴⁾
Analog output Q_A	0.5 mA ... 10 mA ⁵⁾
Connection type	Male connector M12, 5-pin

¹⁾ From front 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.

⁵⁾ Only LUT1B-12205.

Product description

LUT1 series luminescence sensors feature easy to adjust sensitivity. The switching threshold can be adjusted via a plus/minus button, greatly simplifying setup for applications that require changeover. Even at very high speeds, luminescent marks are reliably detected. The visible blue emitted light from the LUT1B version is well-suited for red luminescent marks.

At a glance

- Infinite switching threshold adjustment via membrane keyboard
- Long sensing distances up to 150 mm
- Sender LED UV (375 nm) or blue (470 nm)
- Switching frequency 600 Hz or 6 kHz

Your benefits

- Robust metal housing is reliable and ideal for tough environment conditions
- High detection reliability ensures the process: Blue transmitter LED excites red luminophores especially well. The UV LED is well-suited for blue, green or yellow marks.
- Visible light spot of the LUT1B version makes accurate alignment easy

Ordering information

Other models and accessories → www.sick.com/LUT1

- **Communication interface:** -
- **Light source:** LED, blue (Average service life: 100,000 h at $T_U = +25\text{ °C.}$)

Sensing distance	Switching output	Light spot size	Connection type Detail	Type	Part no.
≤ 50 mm	PNP	5 mm x 5 mm	Male connector M12, 5-pin	LUT1B-11325	1024127
				LUT1B-41225	1024125
	PNP, NPN	5 mm x 5 mm	Male connector M12, 5-pin	LUT1B-31325	1027593
≤ 80 mm	PNP	10 mm x 70 mm	Male connector M12, 5-pin	LUT1B-12205	1027497
≤ 150 mm	PNP	6 mm x 14 mm	Male connector M12, 5-pin	LUT1B-41235	1024126

- **Communication interface:** -
- **Light source:** LED, Ultraviolet light (Average service life: 100,000 h at $T_U = +25\text{ °C.}$)

Sensing distance	Switching output	Light spot size	Connection type Detail	Type	Part no.
≤ 150 mm	PNP	12 mm x 12 mm	Male connector M12, 5-pin	LUT1U-11331	1024128
	PNP, NPN	12 mm x 12 mm	Male connector M12, 5-pin	LUT1U-31231	1028075

SICK AT A GLANCE

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.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com