



Luminescence sensors LUT1

LUT1U-11331



Model Name > LUT1U-11331
Part No. > 1024128



At a glance

- Infinite switching threshold adjustment using touch-sensitive keypad
- Long sensing distances up to 150 mm
- Transmitter LED UV (375 nm) or blue (470 nm)
- Fast switching speed 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



Features

Sensing distance ¹⁾ :	150 mm
Operating range:	60 mm 160 mm
Light source ²⁾ :	LED
Type of light:	Ultraviolet light
Wave length:	375 nm
Light emission:	Long side
Light spot size:	12 mm x 12 mm
Receiving filters:	KV 418 (standard)
Receiving range:	450 nm ... 750 nm
Adjustment:	Manual ("+"/"-" button)
Output function:	Light switching
Dimensions (W x H x D):	23 mm x 70 mm x 60 mm
Housing design (light emission):	Rectangular

¹⁾ From front edge of lens ²⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

Ripple ¹⁾ :	< 5 Vpp
Power consumption ²⁾ :	< 40 mA
Switching frequency ³⁾ :	6 kHz
Response time ⁴⁾ :	85 µs
Output type:	PNP: HIGH = VS- ≤ 2 V/LOW approx. 0 V
Switching mode:	PNP

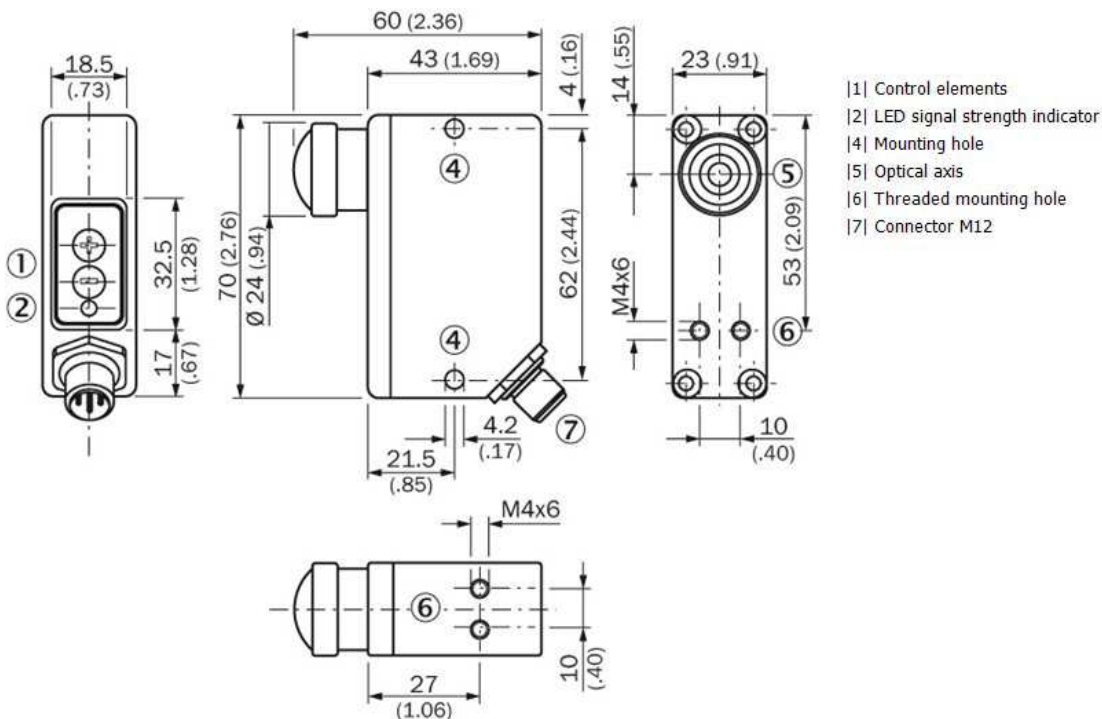
Output current I _{max.} :	200 mA
Connection type:	Connector M12, 5-pin
Protection class ⁵⁾ :	III
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	240 g
Housing material:	Metal, Zinc diecast
Supply voltage:	10 V DC ... 30 V DC ⁶⁾
Fieldbus interface:	-

1) May not exceed or fall short of V_S tolerances 2) Without load 3) With light/dark ratio 1:1, no time delay 4) Signal transit time with resistive load 5) Reference voltage DC 50 V 6) Limit values; operation in short-circuit protected network max. 8 A

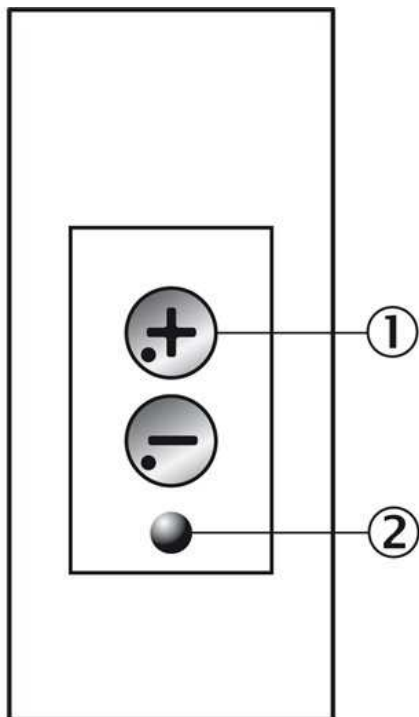
Ambient data

Shock load:	According to IEC 60068
Ambient operating temperature:	-20 °C ... +60 °C
Ambient storage temperature:	-40 °C ... +70 °C

Dimensional drawing

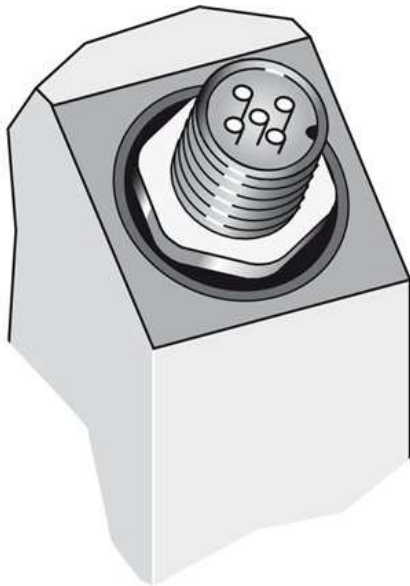


Adjustments

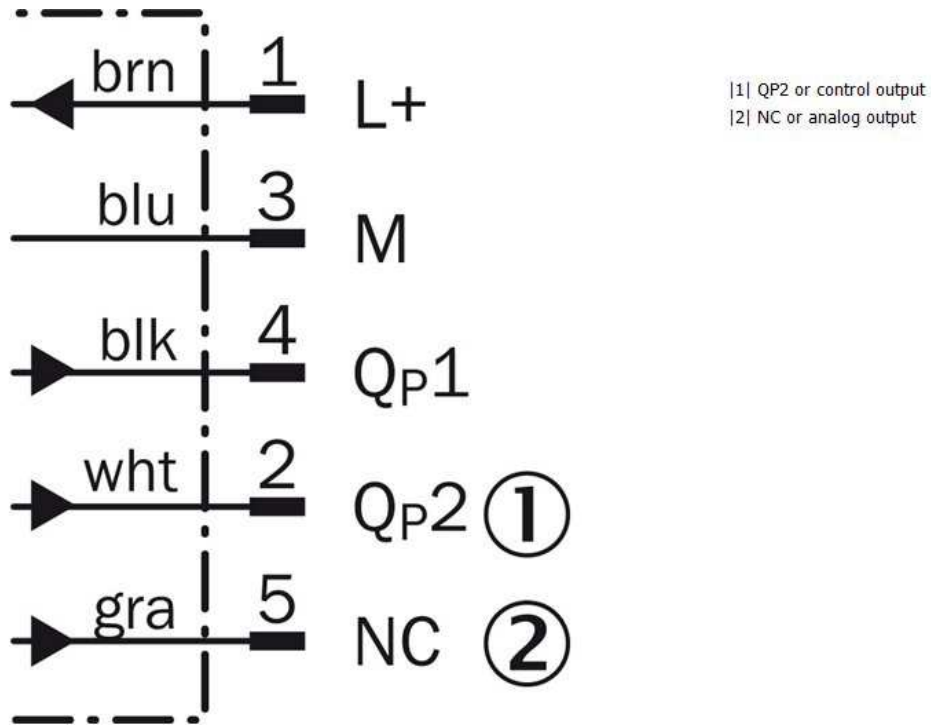


- |1| Control elements
- |2| LED signal strength indicator

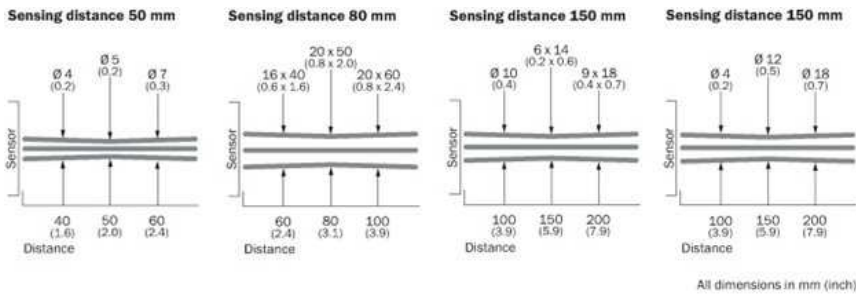
Connection type



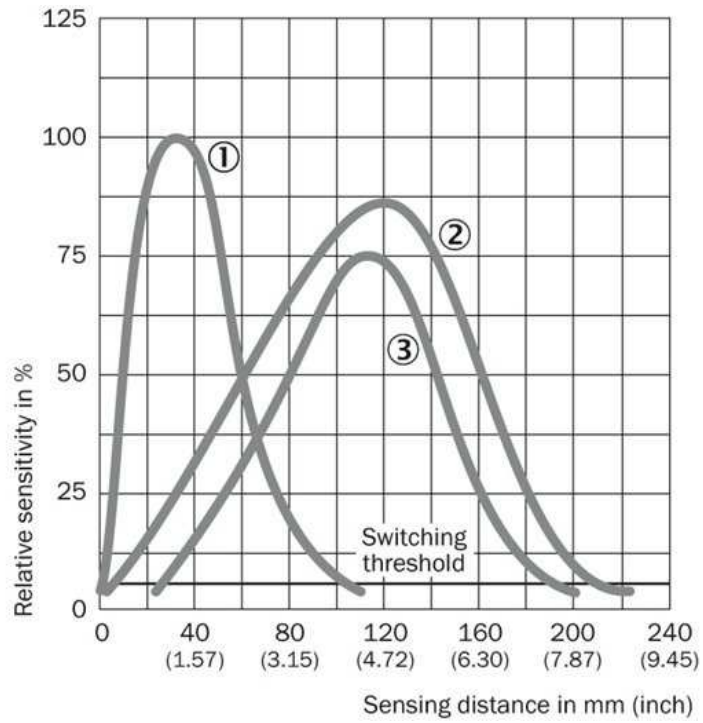
Connection diagram



Light spot size



Sensing distance



- |1| LUT1B sensing distance 50 mm; scan material: acryl orange
- |2| LUT1B sensing distance 150 mm; scan material: acryl orange
- |3| LUT1U sensing distance 150 mm; scan material: SICK Luminescence reference 100 %

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