



Luminescence sensors LUT9

LUT9U-12306



Model Name > **LUT9U-12306**
Part No. > **1047055**



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 and short side, exchangeable
Light spot size:	5 mm x 15 mm
Light spot direction:	Vertical
Receiving filters:	KV 418 (standard)
Receiving range:	450 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

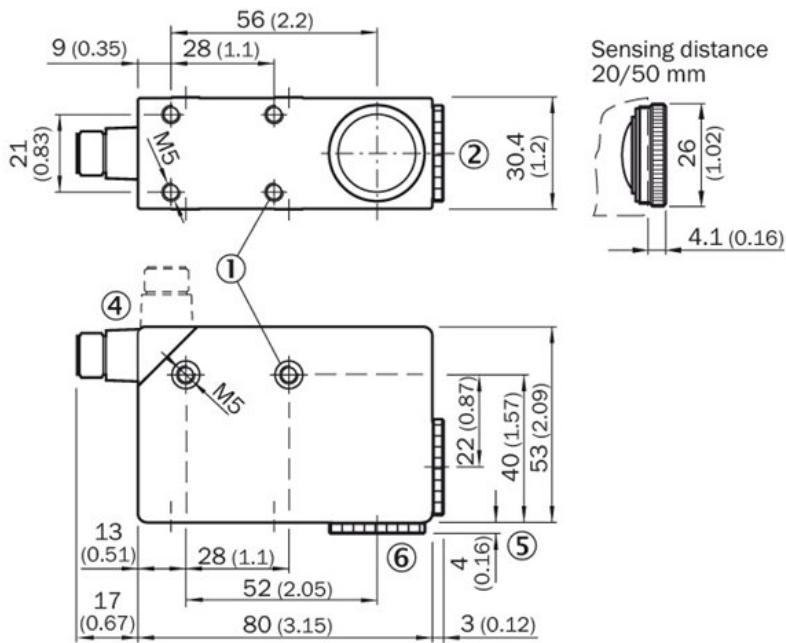
Supply voltage V_s ¹⁾ :	DC 10 V ... 30 V
Ripple ²⁾ :	< 5 Vpp
Power consumption ³⁾ :	< 100 mA
Switching frequency ⁴⁾ :	500 Hz 2.5 kHz 6.5 kHz, Adjustable
Response time ⁵⁾ :	1 ms 200 µs 75 µs
Output type:	NPN: HIGH = approx. V_S / LOW $\leq 2\text{ V}$ PNP: HIGH = $V_S - \leq 2\text{ V}$ / LOW approx. 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

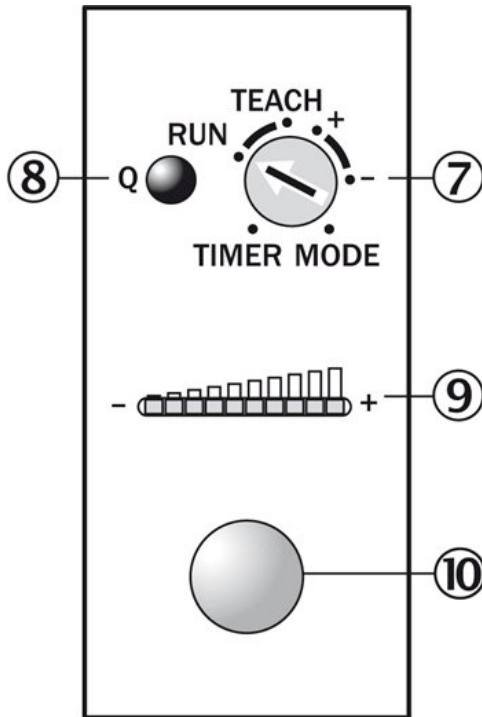
Dimensional drawing



- [1] M5 threaded mounting hole, 5.5 mm deep
- [2] Lens (light transmission), can be replaced by blind screw
- [4] Connector M12 (rotatable up to 90°)
- [5] See dimensional drawing for lens
- [6] Blind screw can be replaced by lens

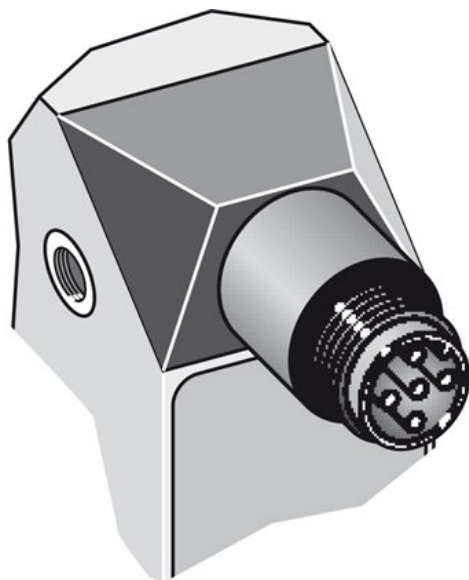
All dimensions in mm (inch)

Adjustments

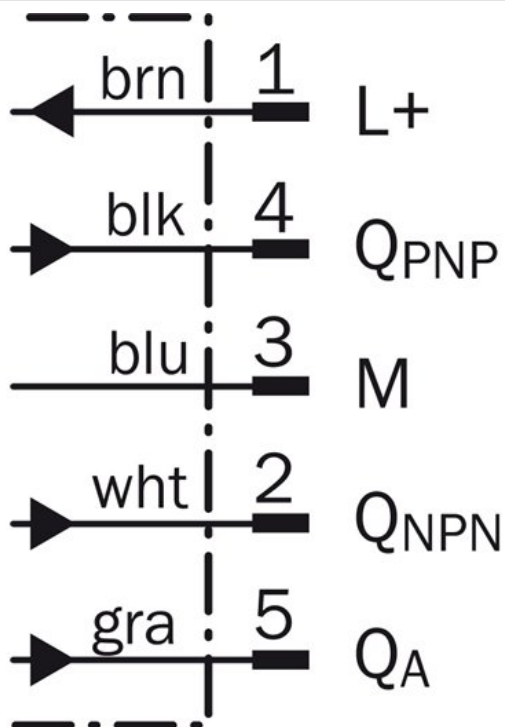


- [7] Rotary selection switch
- [8] Function signal indicator (yellow), switching output
- [9] Bar graph (green), Power on left LED
- [10] Teach-in button

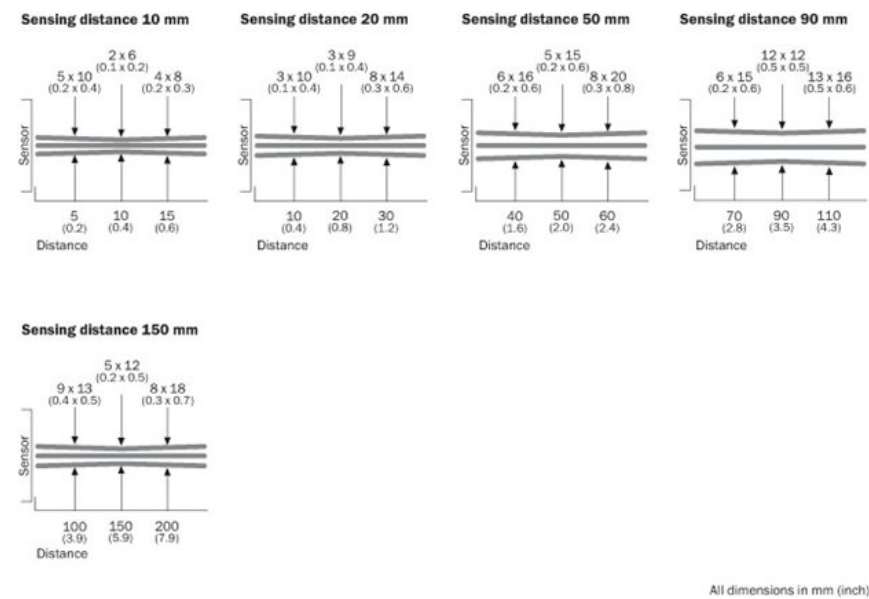
Connection type



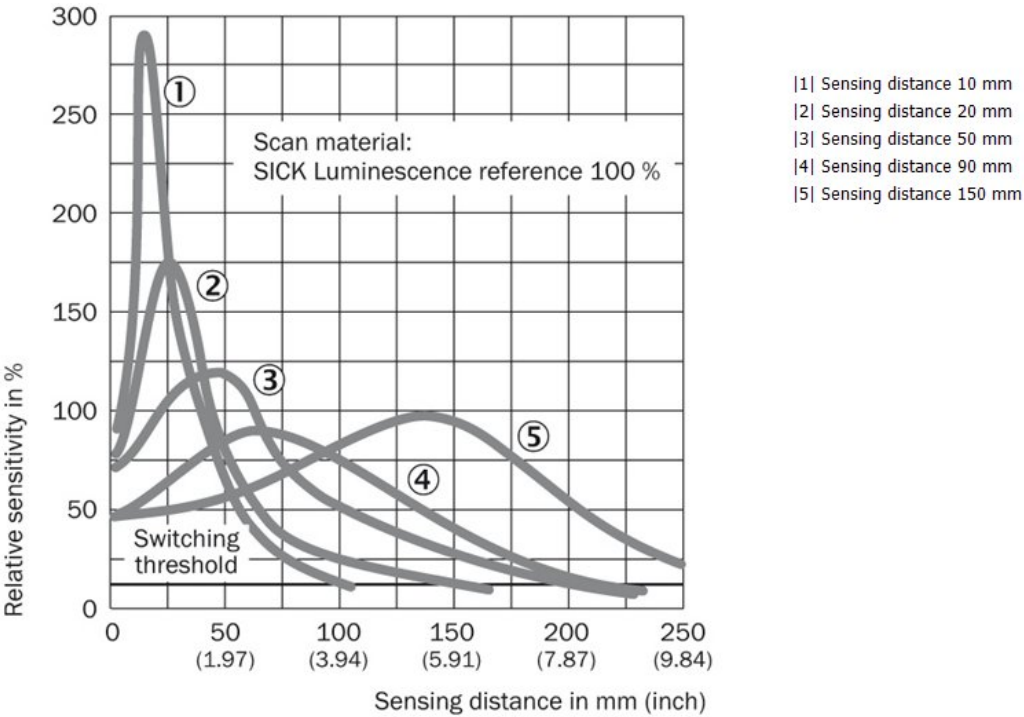
Connection diagram



Light spot size



Sensing distance



Australia

Phone +61 3 9457 0600
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6801000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886-2-2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com