



Luminescence sensors LUT8

LUT8U-11401



Model Name > LUT8U-11401
Part No. > 1047044



At a glance

- Tough metal housing
- Simple sensitivity adjustment in 8 stages
- Bar graph display provides information about the luminescence intensity
- Sensing distances selectable through interchangeable lenses
- Additional optical filters suppress background luminescence
- Fiber-optic cable connection (with 20 mm lens)
- Switching and analog output

Your benefits

- An 8-step rotary switch easily adjusts to accurately determine the switching output position for different materials
- 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 provide flexibility



Features

Sensing distance ¹⁾ :	90 mm
Operating range:	30 mm 110 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
Light spot direction:	Vertical
Receiving filters:	KV 418 (standard)
Receiving range:	450 nm ... 750 nm
Adjustment:	Manual (rotary switch)
Output function:	Light switching
Dimensions (W x H x D):	30.4 mm x 53 mm x 80 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⁾ :	< 100 mA
Switching frequency ³⁾ :	2.5 kHz
Response time ⁴⁾ :	200 µs
Output type:	NPN: HIGH = approx. VS / LOW ≤ 2 V PNP: HIGH = VS- ≤ 3 V / LOW = approx. 0 V
Switching mode:	PNP/NPN
Analog output QA:	0 mA ... 13 mA
Output current I _{max} .:	100 mA
Connection type:	Connector M12, 5-pin
Protection class ⁵⁾ :	II
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Enclosure rating:	IP 67
Weight:	400 g
Housing material:	Metal, Zinc diecast
Supply voltage:	12 V DC ... 30 V DC ⁶⁾
Fieldbus interface:	-

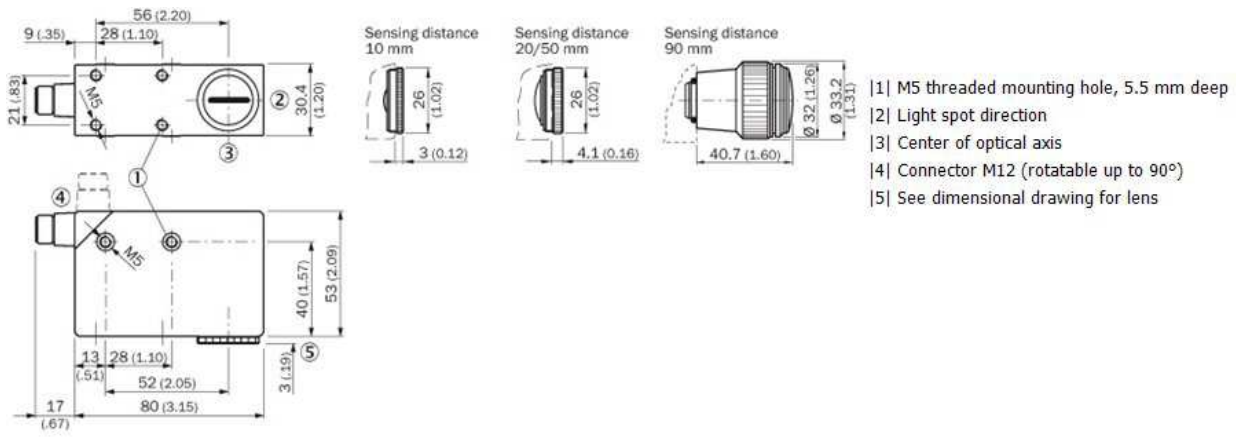
¹⁾ May not exceed or fall short of V_S tolerances ²⁾ Without load ³⁾ With light/dark ratio 1:1 ⁴⁾ Signal transit time with resistive load ⁵⁾ Reference voltage DC 50 V ⁶⁾

Limit values; operation in short-circuit protected network max. 8 A

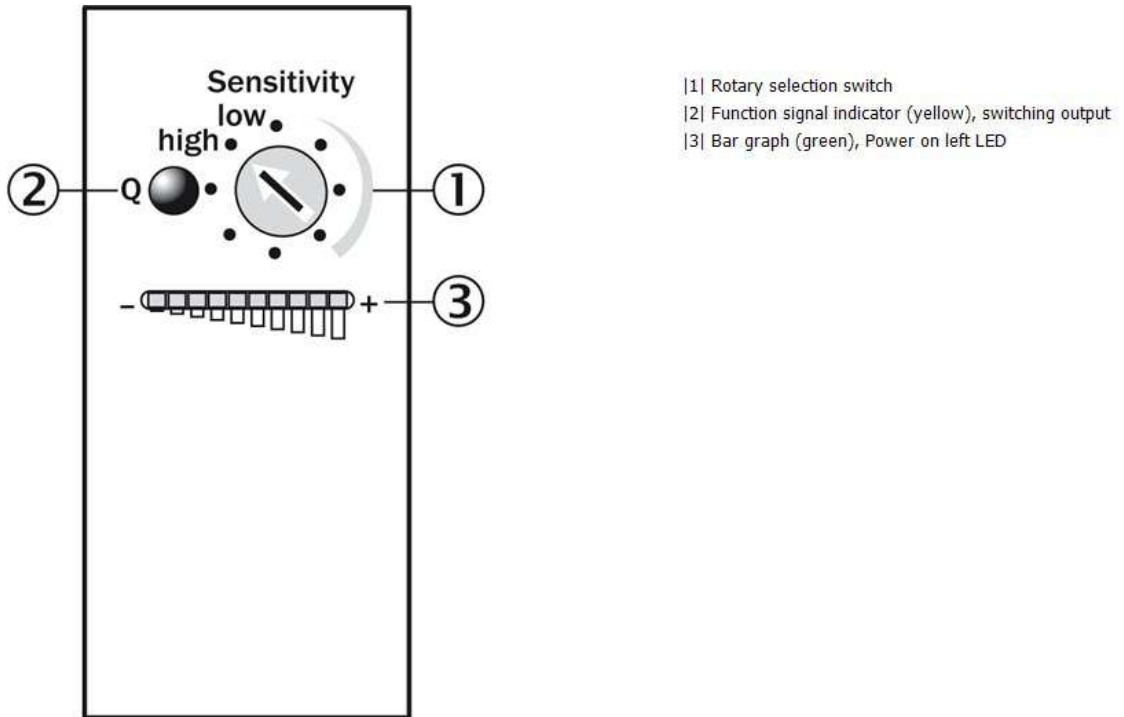
Ambient data

Shock load:	According to IEC 60068
Ambient operating temperature:	-10 °C ... +55 °C
Ambient storage temperature:	-25 °C ... +75 °C

Dimensional drawing

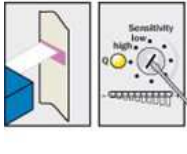


Adjustments



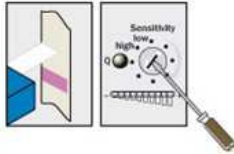
Bedienhinweis

1. Position mark



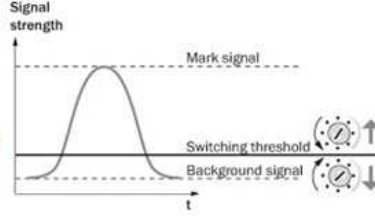
Turn "Sensitivity" rotary switch clockwise until yellow LED illuminates.

2. Position background



If yellow LED illuminates, turn "Sensitivity" rotary switch counter-clockwise until the yellow LED just goes out.

Sensitivity setting

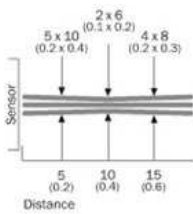


Note

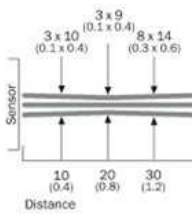
The bar graph display shows the luminescence intensity (regardless of switching threshold setting). Adjustments are intended for luminescence background suppression.

Light spot size

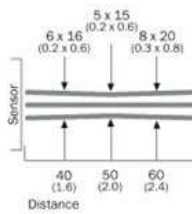
Sensing distance 10 mm



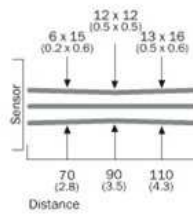
Sensing distance 20 mm



Sensing distance 50 mm

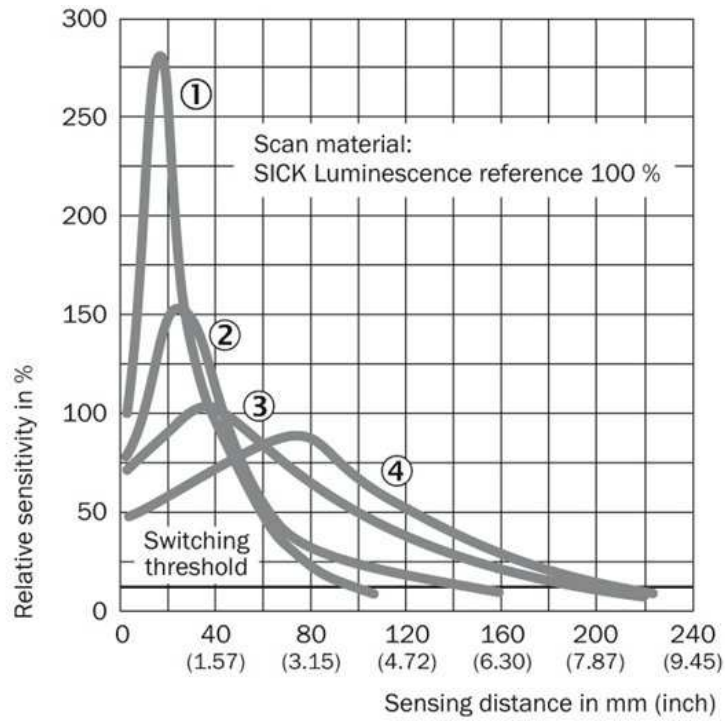


Sensing distance 90 mm



All dimensions in mm (inch)

Sensing distance



- |1| Sensing distance 10 mm
- |2| Sensing distance 20 mm
- |3| Sensing distance 50 mm
- |4| Sensing distance 90 mm

Australia

Phone +61 3 9457 0600
1800 33 48 02 – 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 marketing@sick.com.br

Canada

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

Česká 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 info@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 +972-4-6881000
E-Mail info@sick-sensors.com

Italia

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

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

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

Nederland

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

Norge

Phone +47 67 81 50 00
E-Mail sick@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 sales.gsg@sick.com

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 88 65 878
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