



Photoelectric sensors  
G2S, Photoelectric retro-reflective sensor,  
Standard optics

GL2S-E1312



**Model Name** > **GL2S-E1312**  
**Part No.** > **1064424**



*Illustration may differ*

**At a glance**

- Operating distance up to 3 m
- Full-grade photoelectric retro-reflective sensor with polarizing filter to detect highly reflective objects
- PinPoint LED technology is precise and fast-reacting for optimal, quick detection of a wide range of objects
- Clearly visible LED display
- Rugged metal mounting bushes ensure reliable installation and a long service life

**Your benefits**

- Easy alignment thanks to the small, brilliant and highly visible light spot
- High throughput and less machine and system downtime, since the sensors are pre-set and have high operating reserves
- Space-saving system, since the powerful PinPoint LED with a high light intensity permits the use of small reflectors for high sensing ranges
- The 45-degree tilted cable entry offers maximum installation flexibility with additional soft rubber bearings to absorb vibrations and tensile loads
- Installation flexibility since several sensors can be installed in close proximity to one another without causing false trips due to interference



**Features**

Sensor/detection principle:	Photoelectric retro-reflective sensor, Standard optics
Dimensions (W x H x D):	7.7 mm x 21.8 mm x 13.5 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.02 m ... 3 m <sup>1)</sup>
Sensing range:	0.03 m ... 2.5 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	PinPoint LED <sup>3)</sup>
Wave length:	640 nm
Light spot size (distance):	Ø 11 mm (250 mm)

<sup>1) 2)</sup> PL40A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

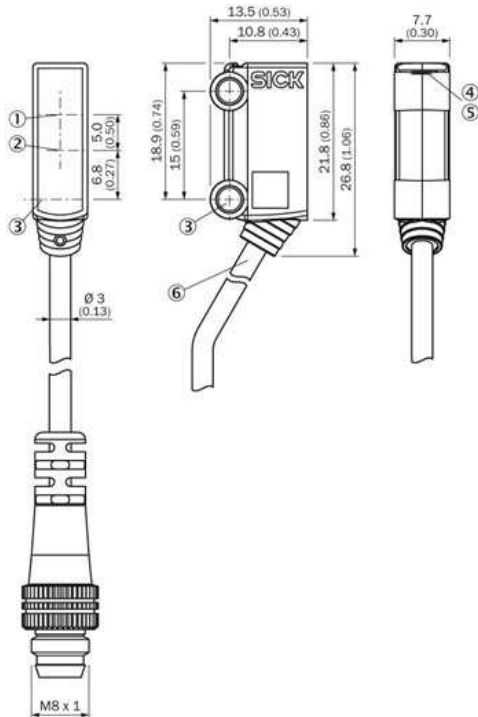
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	≤ 5 Vpp <sup>2)</sup>
Power consumption:	≤ 20 mA <sup>3)</sup>
Output type:	NPN

Switching mode:	Dark switching
Output current I <sub>max</sub> ..:	< 50 mA
Response time:	< 0.6 ms <sup>4)</sup>
Switching frequency:	800 Hz <sup>5)</sup>
Connection type:	Cable, 3-wire, 2 m <sup>6)</sup>
Cable diameter:	Ø 3 mm
Circuit protection:::	A, C, D <sup>7) 8) 9)</sup>
Polarisation filter:	✓
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Reflektor PL10F
Ambient temperature operation:	-25 °C ... +50 °C
Ambient storage temperature:	-40 °C ... +75 °C
UL File No.:	NRKH.E181493
Housing material:	ABS, Plastic

1) Limit values, operation in short-circuit protected network max. 8 A 2) May not exceed or fall short of V<sub>S</sub> tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) Do not bend below 0 °C 7) A = V connections reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent and short-circuit protected

## Dimensional drawing

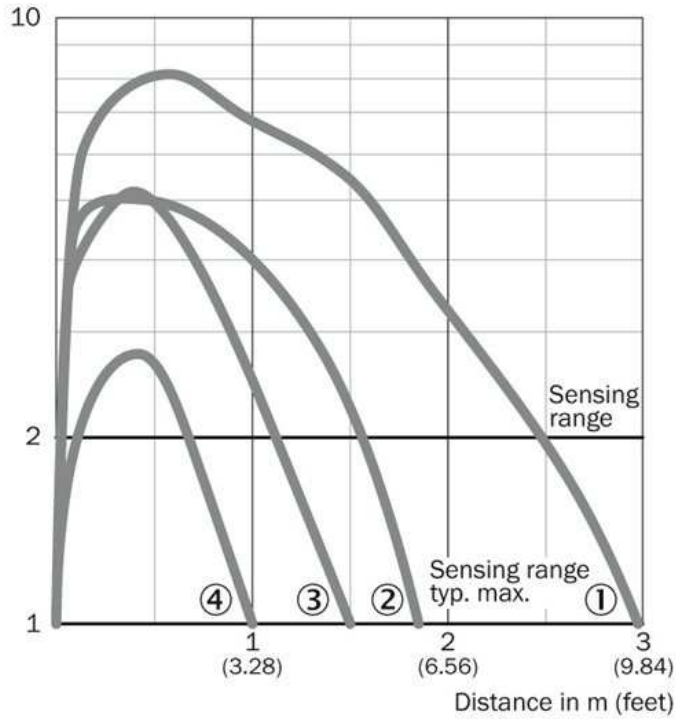


- [1] Optical axis receiver
- [2] Optical axis sender
- [3] Mounting hole, Ø 3.2 mm
- [4] Status indicator LED green: supply voltage on
- [5] Status indicator LED, yellow: Status of received light beam
- [6] Connection

Connection diagram



Characteristic curve



- |1| PL40A
- |2| PL20A
- |3| PL10F
- |4| IREF6000 (REF-IRF-56)

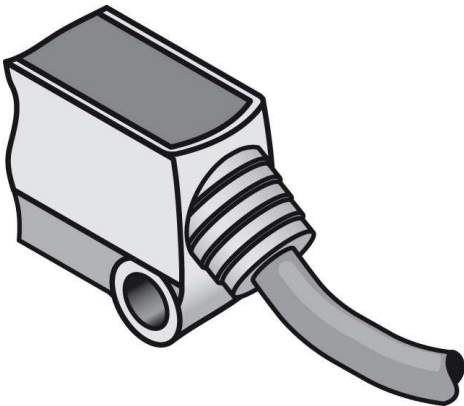
## Sensing range diagram



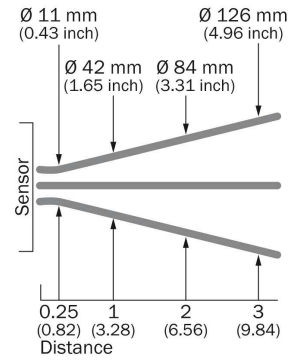
- |1| PL40A
- |2| PL20A
- |3| PL10F
- |4| IREF6000 (REF-IRF-56)

■ Sensing range                      ■ Sensing range typ. max.

## Connection type



## Light spot size



All dimensions in m (feet)

**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](http://www.sick.com)