



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

GL2S-N1312



**Model Name** > **GL2S-N1312**  
**Part No.** > **1064423**



*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

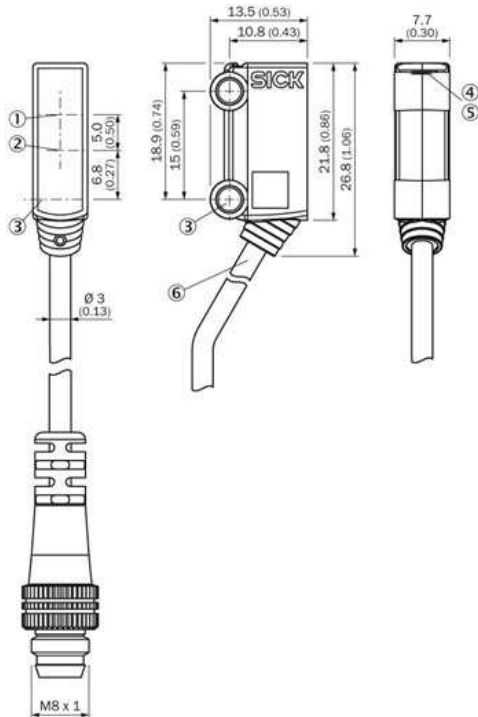
**Mechanics/electronics**

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:	Light 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

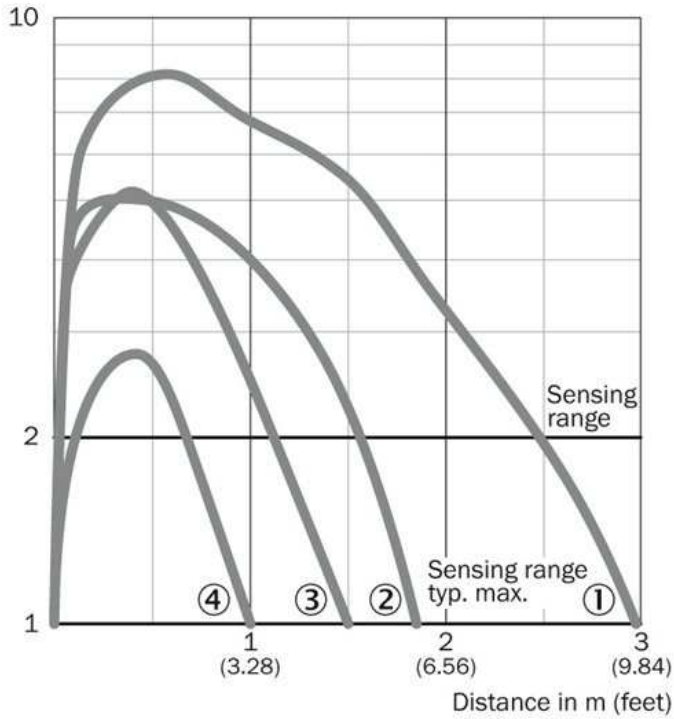


- [1] Optical axis receiver
- [2] Optical axis sender
- [3] Mounting hole, Ø 3.2 mm
- [4] Status indicator LED green: supply voltage on
- [5] Status indicator LED, yellow: Status of received light beam
- [6] Connection

Connection diagram

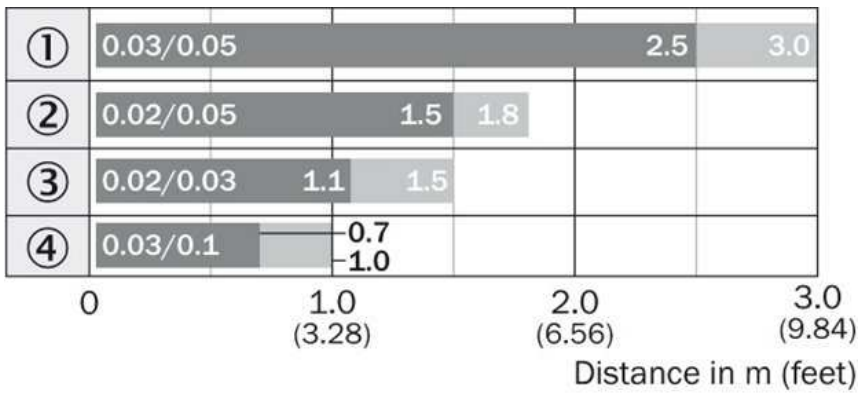


Characteristic curve



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

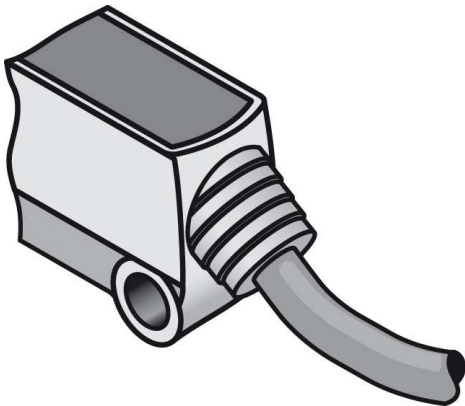
### Sensing range diagram



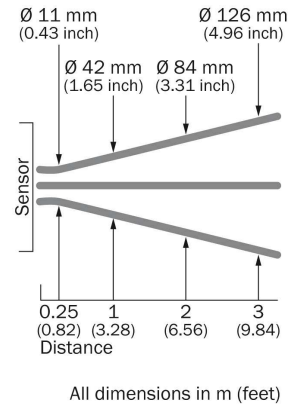
- |1| PL40A
- |2| PL20A
- |3| PL10F
- |4| IREF6000 (REF-IRF-56)

■ Sensing range                      ■ Sensing range typ. max.

### Connection type



### Light spot size



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