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

GL2S-P1311




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# G2S, Photoelectric retro-reflective sensor, Standard optics

**Model Name** > GL2S-P1311
**Part No.** > 1064357





*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 [1] |
| Sensing range: | 0.03 m ... 2.5 m [2] |
| Type of light: | Visible red light |
| Light source: | PinPoint LED [3] |
| Wave length: | 640 nm |
| Light spot size (distance): | Ø 11 mm (250 mm) |

[1] [2] PL40A [3] Average service life of 100,000 h at $T_A$ = +25 °C

## Mechanics/electronics

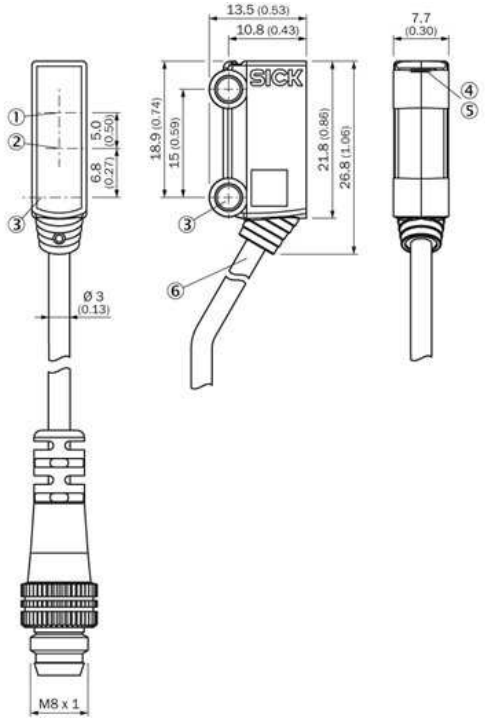
| | |
|---|---|
| Supply voltage: | 10 V DC ... 30 V DC [1] |
| Ripple: | ≤ 5 Vpp [2] |
| Power consumption: | ≤ 20 mA [3] |
| Output type: | PNP |


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| | |
|---|---|
| Switching mode: | Light switching |
| Output current Imax.: | < 50 mA |
| Response time: | < 0.6 ms [4] |
| Switching frequency: | 800 Hz [5] |
| Connection type: | Cable, 3-wire, 2 m [6] |
| Cable diameter: | Ø 3 mm |
| Circuit protection::: | A, C, D [7] [8] [9] |
| Polarisation filter: | ✓ |
| Optics material: | PMMA |
| Enclosure rating: | IP 67 |
| 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 $V_S$ 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 = $V_S$ connections reverse-polarity protected [8] C = interference suppression [9] D = outputs overcurrent and short-circuit protected

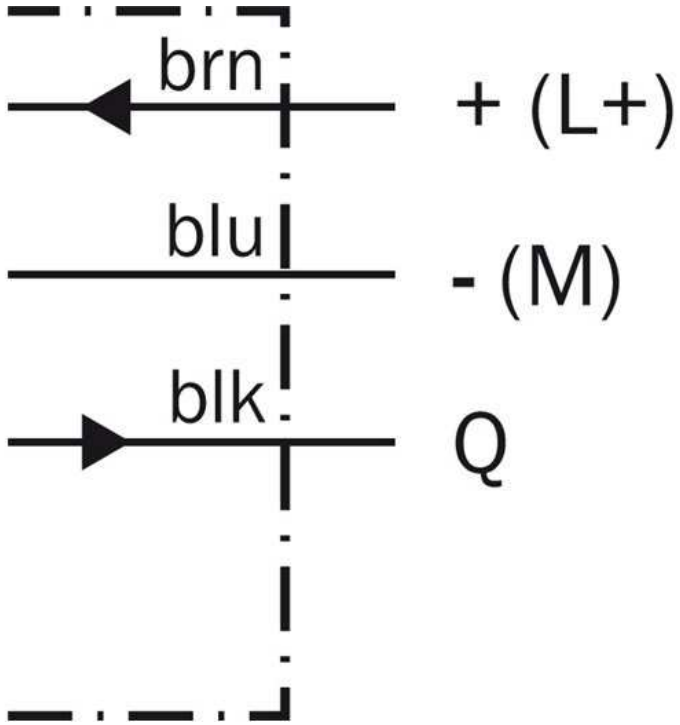
## Dimensional drawing



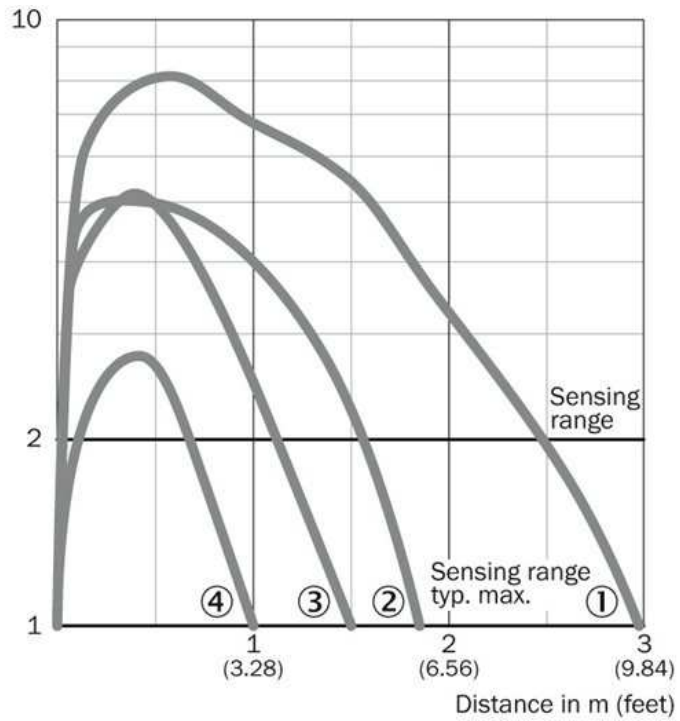

|1| Optical axis receiver
|2| Optical axis sender
|3| Mounting hole, Ø 3.2 mm
|4| Status indicator LED green: supply voltage on
|5| Status indicator LED,
yellow: Status of received light beam
|6| Connection


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## Connection diagram



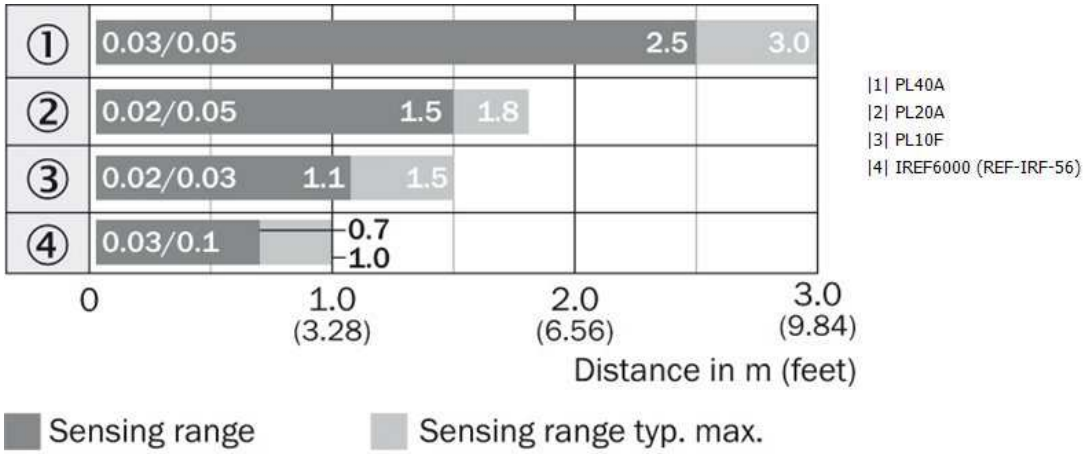

## Characteristic curve




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

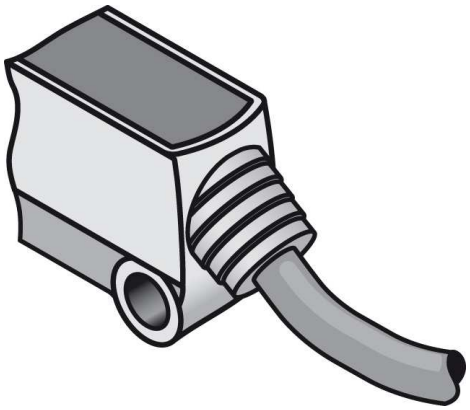

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## Sensing range diagram

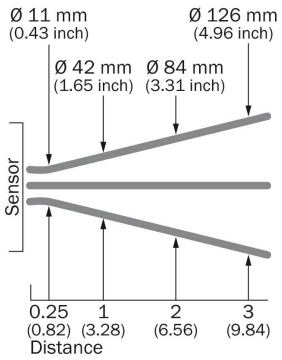



|1| PL40A
|2| PL20A
|3| PL10F
|4| IREF6000 (REF-IRF-56)

## Connection type



## Light spot size




All dimensions in m (feet)


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