



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

GL2S-F1311



Model Name > **GL2S-F1311**
Part No. > **1064358**



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

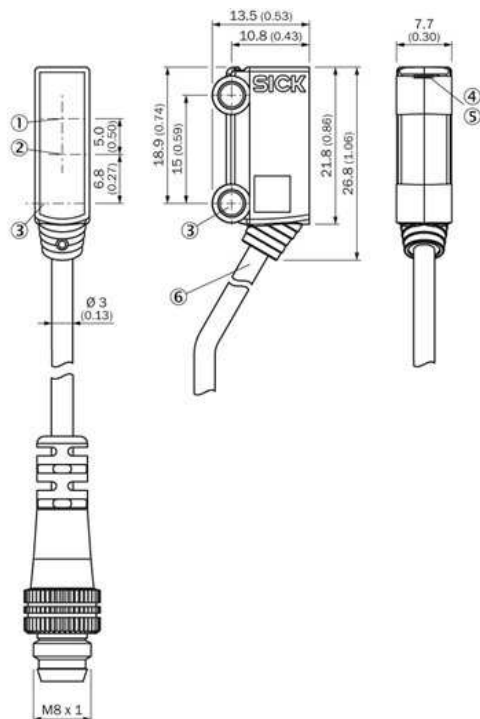
Mechanics/electronics

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

| | |
|------------------------------------|----------------------------------|
| Switching mode: | Dark switching |
| Output current I _{max} ·: | < 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 |

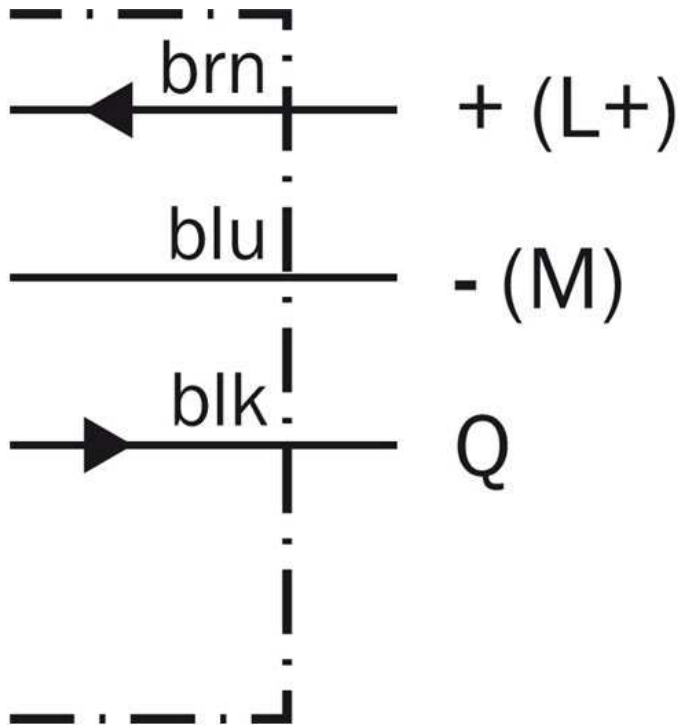
1) Limit values, operation in short-circuit protected network max. 8 A 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) Do not bend below 0 °C 7) A = V_S connections reverse-polarity protected 8) C = interference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

Dimensional drawing

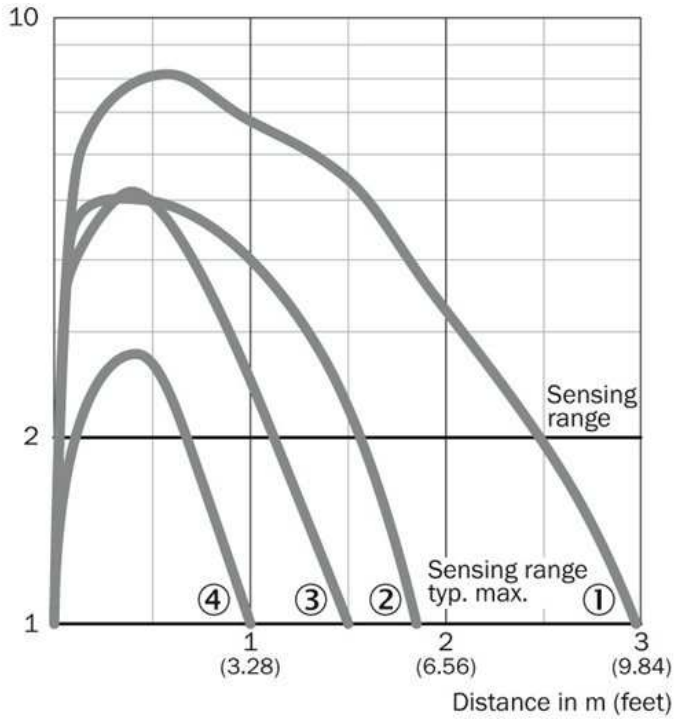


- |1| Optical axis receiver
- |2| Optical axis sender
- |3| Mounting hole, Ø 3.2 mm
- |4| Status indicator LED green: supply voltage on
- |5| Status indicator LED, yellow: Status of received light beam
- |6| Connection

Connection diagram



Characteristic curve



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

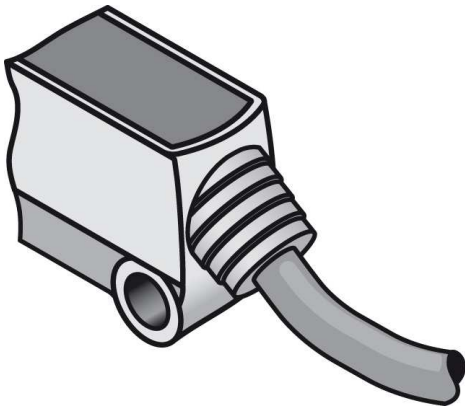
Sensing range diagram



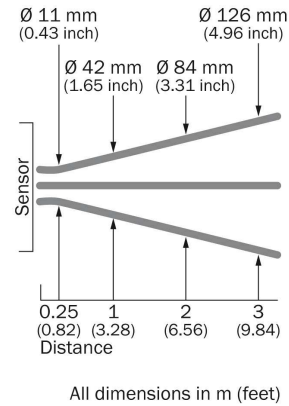
- |1| PL40A
- |2| PL20A
- |3| PL10F
- |4| IREF6000 (REF-IRF-56)

■ Sensing range ■ Sensing range typ. max.

Connection type



Light spot size



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