



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

GL2S-N0311S01



Type > **GL2S-N0311S01**
Part No. > **1075790**



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, Dual lens
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
Special features:	Terminal connector
Light spot size (distance):	X Ø 11 mm (250 mm)

^{1) 2)} PL40A ³⁾ Average service life: 100,000 h at T_U = +25 °C

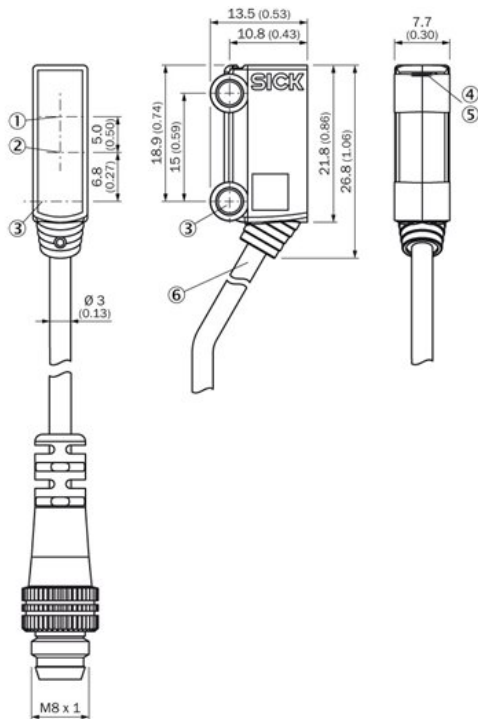
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾
Current consumption:	≤ 20 mA ³⁾

Output type:	NPN
Switching mode:	Light/dark switching
Output current I _{max} :	< 50 mA
Response time:	< 0.6 ms ⁴⁾
Switching frequency:	800 Hz ⁵⁾
Circuit protection:::	A, C, D ^{6) 7) 8)}
Polarisation filter:	✓
Special device:	-
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	-25 °C ... +50 °C
Ambient storage temperature:	-40 °C ... +75 °C
UL File No.:	NRKH.E181493
Housing material:	ABS, Plastic

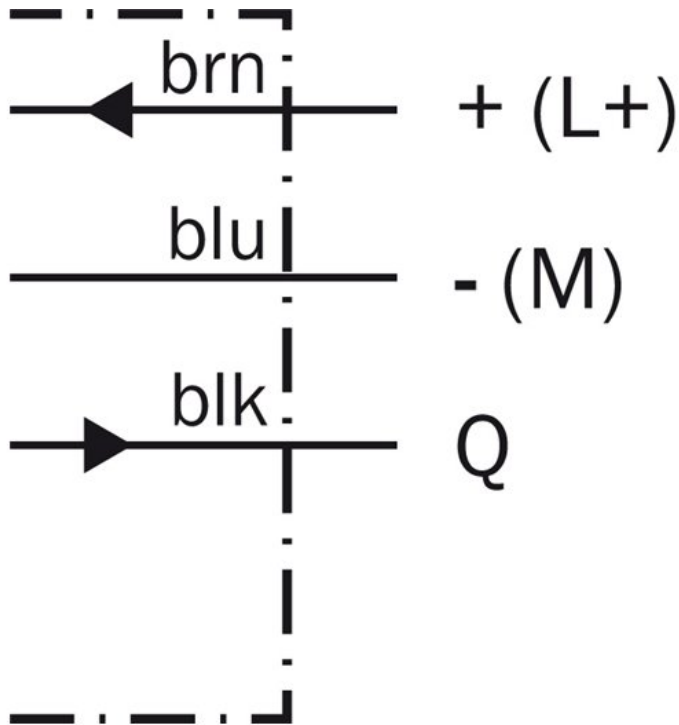
1) Limit values when operated in short-circuit protected network: max. 8 A ²⁾ May not exceed or fall below U_V tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ A = V_S connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs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

Dimensional drawing

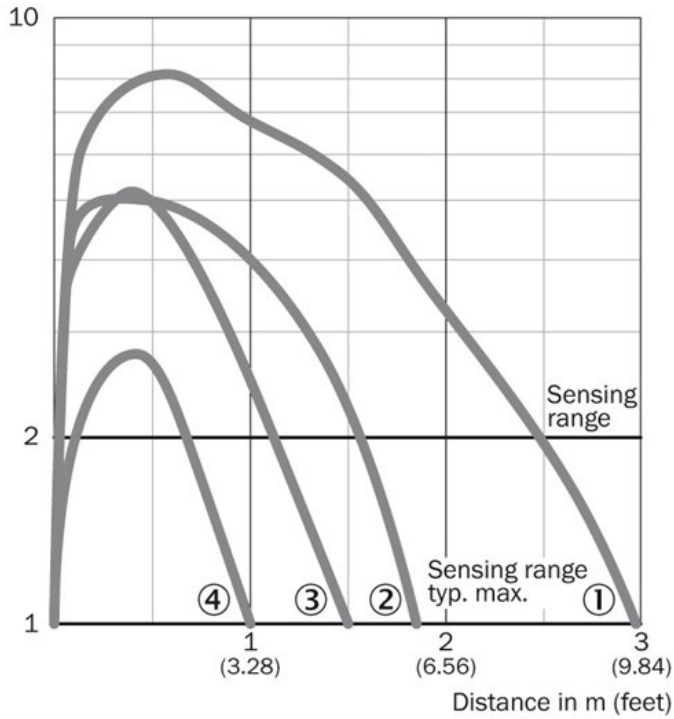


- [1] Optical axis receiver
- [2] Optical axis sender
- [3] Mounting hole, Ø 3.2 mm
- [4] Status indicator LED green: supply voltage on
- [5] Status indicator LED, yellow: Status of received light beam
- [6] Connection

Connection diagram

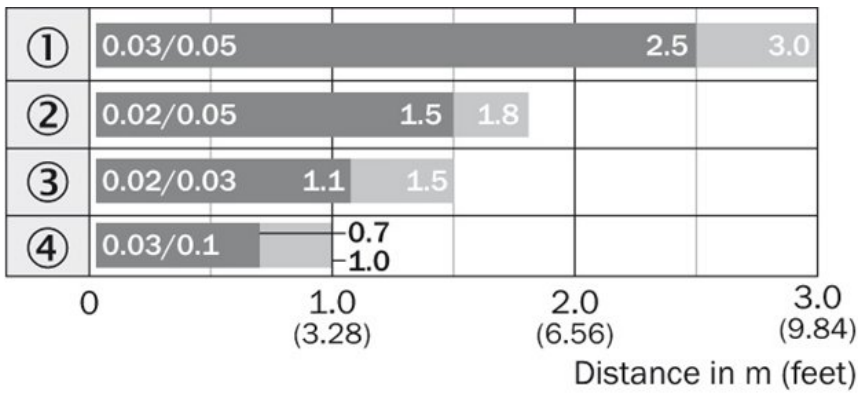


Characteristic curve



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

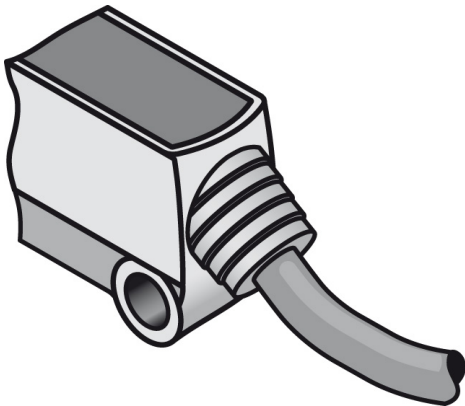
Sensing range diagram



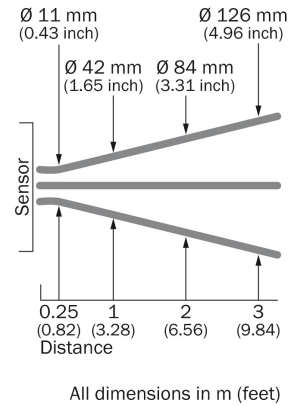
- |1| PL40A
- |2| PL20A
- |3| PL10F
- |4| IREF6000 (REF-IRF-56)

■ Sensing range ■ Sensing range typ. max.

Connection type



Light spot size



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