

ONLINE DATA SHEET
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Photoelectric sensors
G2S, Photoelectric retro-reflective sensor, Standard optics

GL2S-N2311



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Model Name > GL2S-N2311
Part No. > 1067404





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

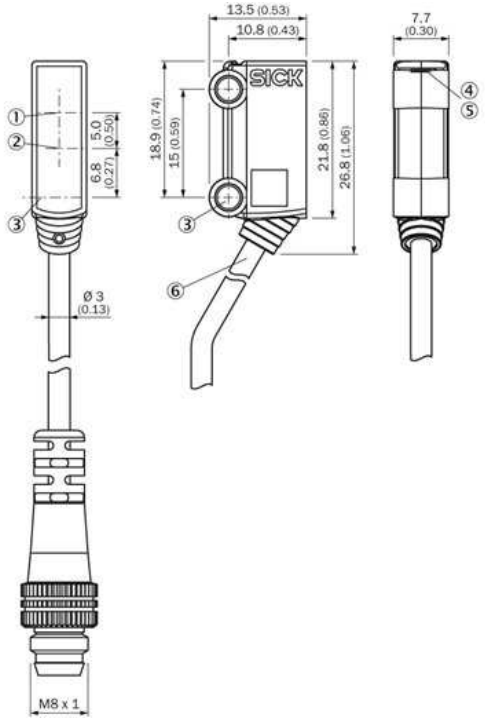
Supply voltage:	10 V DC ... 30 V DC [1]
Residual ripple:	≤ 5 Vpp [2]
Power consumption:	≤ 20 mA [3]
Output type:	NPN

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Switching mode:	Light/dark switching
Output current Imax.:	< 50 mA
Response time:	< 0.6 ms [4]
Switching frequency:	800 Hz [5]
Electrical connection:	Cable, 4-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 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, 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

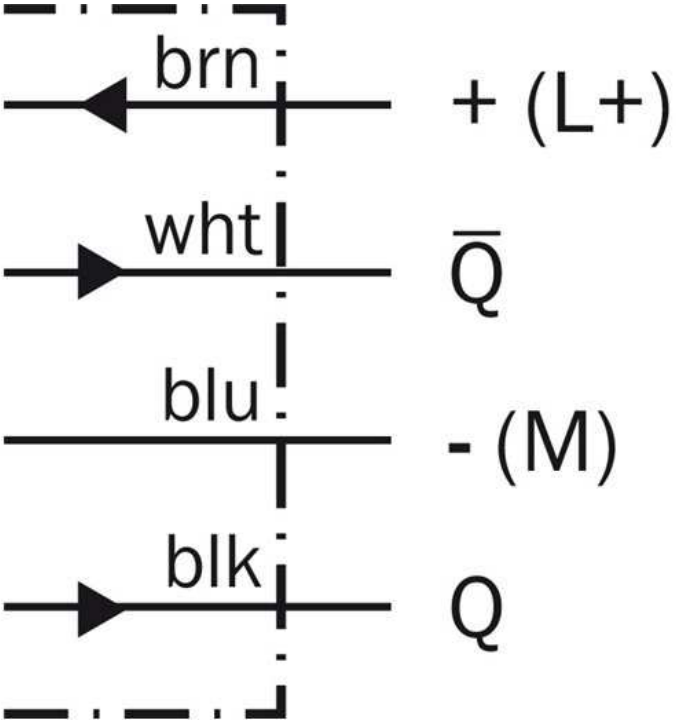
Dimensional drawing



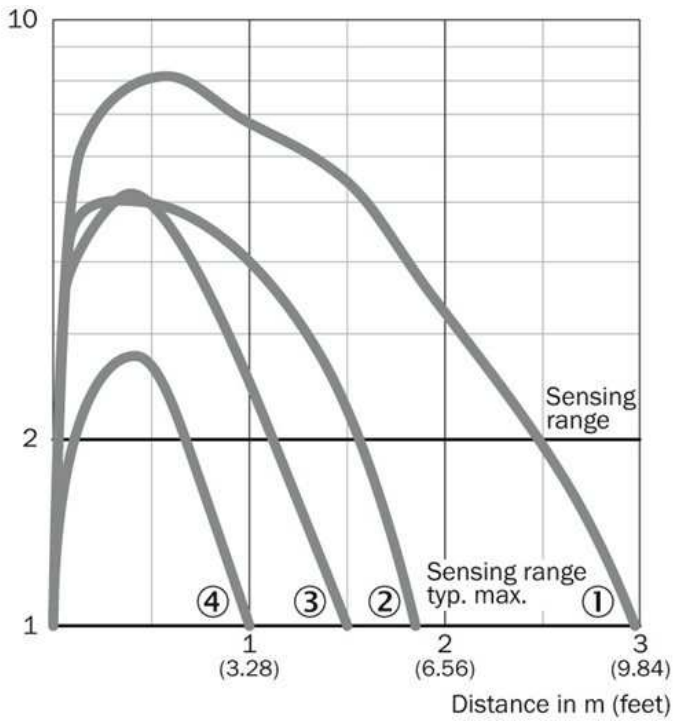
|1| Optical axis receiver
|2| Optical axis sender
|3| Mounting hole, Ø 3.2 mm
|4| Status indicator LED green: supply voltage on
|5| Status indicator LED,
yellow: Status of received light beam
|6| Connection

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Connection diagram



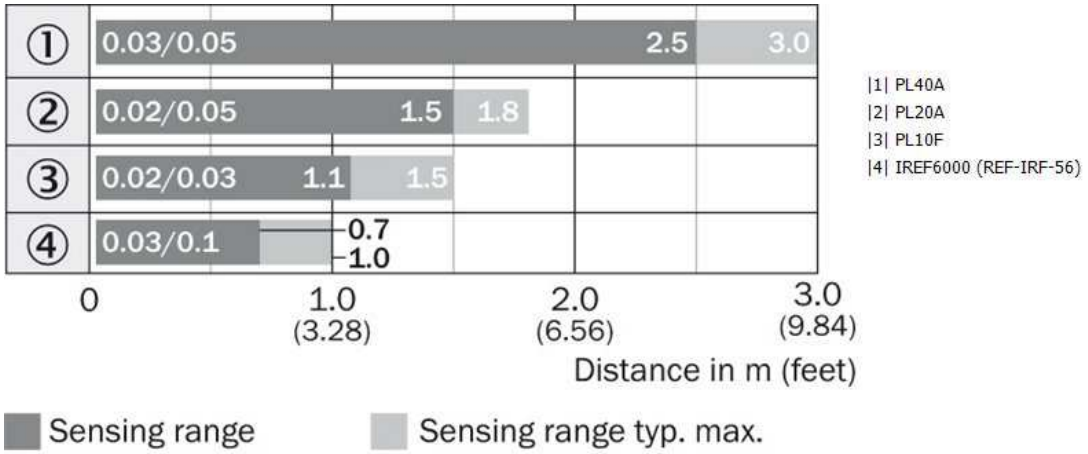
Characteristic curve



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

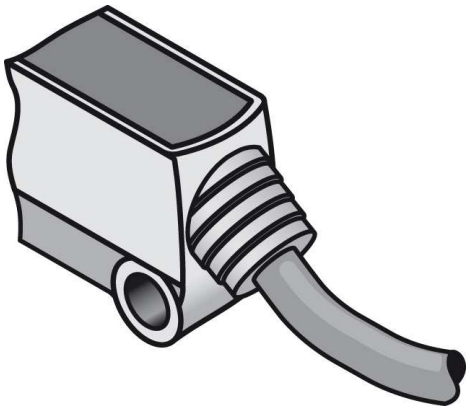
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Sensing range diagram

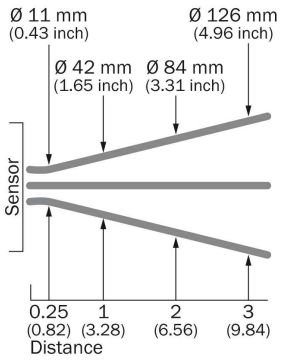


|1| PL40A
|2| PL20A
|3| PL10F
|4| IREF6000 (REF-IRF-56)

Connection type



Light spot size



All dimensions in m (feet)

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