Online data sheet



GL6-P0111S04

G6

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
GL6-P0111S04	1054549

Other models and accessories ➜ www.sick.com/G6

Detailed technical data

Features

Sensor/ detection principle	Photoelectric retro-reflective sensor, Dual lens
Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Housing design (light emission)	Rectangular
Sensing range max.	≤ 6 m [1]
Sensing range	≤ 5 m [1]
Type of light	Visible red light
Light source	PinPoint LED [2]
Light spot size (distance)	Ø 8 mm (350 mm)
Wave length	650 nm
Adjustment	None
Special features	Cable length 200 mm

[1] Reflector PL80A.
[2] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC [1]

[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] At Uv > 24 V, IA max. = 50 mA.
[5] Signal transit time with resistive load.
[6] With light/dark ratio 1:1.
[7] Do not bend below 0 °C.
[8] A = V_S connections reverse-polarity protected.
[9] B = inputs and output reverse-polarity protected.
[10] D = outputs overcurrent and short-circuit protected.
[11] Temperature stability following adjustment +/-10 °C.

Ripple	± 10 % [2]
Power consumption	30 mA [3]
Switching output	PNP
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark selector
Signal voltage NPN HIGH/LOW	Approx. V_S / ≤ 3 V
Output current $I_{max.}$	≤ 100 mA [4]
Response time	< 625 µs [5]
Switching frequency	1,000 Hz [6]
Connection type	Cable with connector M8, 3-pin, 200 mm [7]
Circuit protection	A [8] B [9] D [10]
Protection class	III
Weight	20 g
Polarisation filter	✓
Special device	✓
Housing material	Plastic, ABS/PC
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	–25 °C ... +55 °C [11]
Ambient storage temperature	–40 °C ... +70 °C
UL File No.	NRKH.E348498 & NRKH7.E348498

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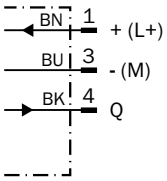
Classifications

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ECl@ss 5.1.4	27270902
ECl@ss 6.0	27270902
ECl@ss 6.2	27270902
ECl@ss 7.0	27270902
ECl@ss 8.0	27270902
ECl@ss 8.1	27270902
ECl@ss 9.0	27270902

ETIM 5.0	EC002717
ETIM 6.0	EC002717
UNSPSC 16.0901	39121528

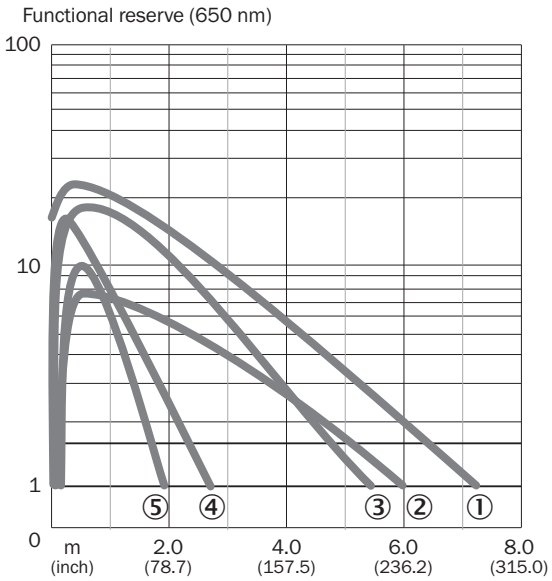
Connection diagram

Cd-045



Characteristic curve

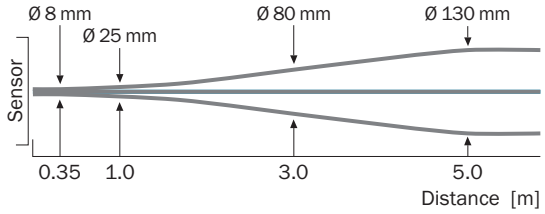
GL6G



① Reflector PL80A
② Reflector PL40A
③ Reflector P250
④ Reflector PL20A
⑤ Reflective tape Diamond Grade

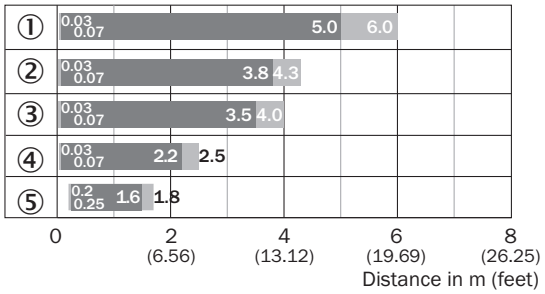
Light spot size

GL6, GL6G



Sensing range diagram

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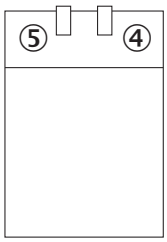


Sensing range Sensing range max.

① Reflector PL80A
② Reflector PL40A
③ Reflector P250
④ Reflector PL20A
⑤ Reflective tape REF-IRF-56

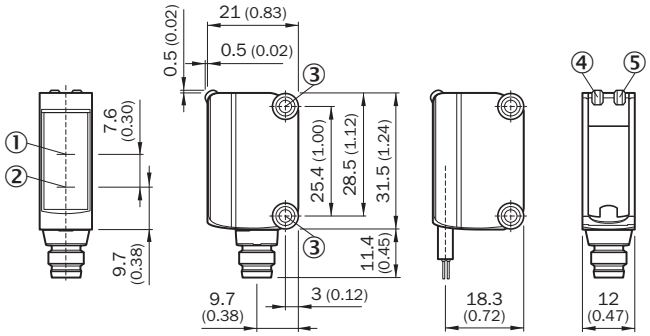
Adjustments possible

No adjustment possibility



④ LED indicator green: Supply voltage active
⑤ LED indicator yellow: Status of received light beam

Dimensional drawing (Dimensions in mm (inch))



① Optical axis, receiver
② Optical axis, sender
③ Mounting holes M3
④ LED indicator green: Supply voltage active
⑤ LED indicator yellow: Status of received light beam

Recommended accessories

Other models and accessories ➜ www.sick.com/G6

	Brief description	Type	Part no.
Mounting brackets and plates			
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574
Plug connectors and cables			
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U13-050VA1XLEAX	2095884
	Head A: male connector, M8, 3-pin, straight Head B: - Cable: unshielded	STE-0803-G	6037322
Reflectors			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com