

ONLINE DATA SHEET
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Photoelectric sensors
G6, Photoelectric retro-reflective sensor, Standard optics

GL6G-P1212



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Model Name > GL6G-P1212
Part No. > 1060812





Illustration may differ

At a glance

- PinPoint LED for a bright, precise light spot
- Durable metal threaded inserts
- SICK ASIC technology - the result of decades of experience in photoelectric sensors
- Large, user-friendly potentiometer
- Large, bright indicator LEDs
- Adjustable receiver sensitivity via 270° turn potentiometer
- IP 67 enclosure rating

Your benefits

- Easy alignment and precise object detection due to a highly visible PinPoint LED
- Quick and easy mounting and high durability due to threaded metal inserts
- SICK ASIC technology provides high performance, excellent reliability and crosstalk immunity
- Easy to adjust due to large, user-friendly potentiometers
- Easy to monitor due to large, bright indicator LEDs
- Easy installation with SICK accessories
- Detection of transparent objects

Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, Standard optics
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 [2)]
Type of light:	Visible red light
Light source:	PinPoint LED [3)]
Wave length:	650 nm
Adjustment:	Potentiometer, 270 °
Light spot size (distance):	Ø 8 mm (350 mm)

1) 2) PL80A 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:	± 10 % [2)]

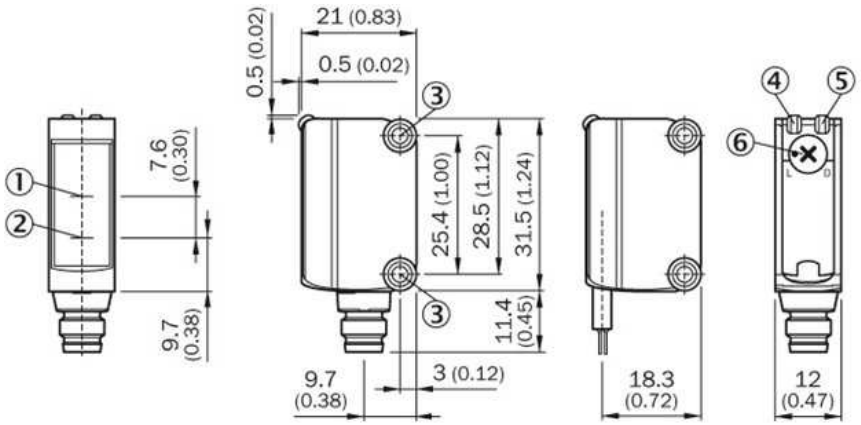
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Power consumption:	≤ 30 mA [3]
Output type:	PNP
Switching mode:	Light/dark switching
Switching mode selector:	Selectable via light/dark selector
Output current Imax.:	≤ 100 mA [4]
Response time:	< 625 µs [5]
Switching frequency:	1,000 Hz [6]
Attenuation along light beam:	> 20 %
Connection type:	Cable, 3-wire, 2 m [7]
Cable material:	PVC
Conductor cross-section:	0.14 mm²
Circuit protection:::	A, B, D [8) 9) 10)]
Protection class:	III
Weight:	60 g
Polarisation filter:	✓
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Stainless steel mounting bracket (1.4301/304) BEF-W100-A, Reflector P250
Special feature:	Detection of transparent objects
Ambient temperature operation:	-25 °C ... +55 °C [11]
Ambient storage temperature:	-40 °C ... +70 °C
UL File No.:	NRKH.E348498 & NRKH7.E348498
Signal voltage PNP HIGH/LOW:	VS - (≤ 3 V)/approx. 0 V
Housing material:	ABS/PC, 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] At Vs > 24 V, I_A 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 after adjustment +/-10°C

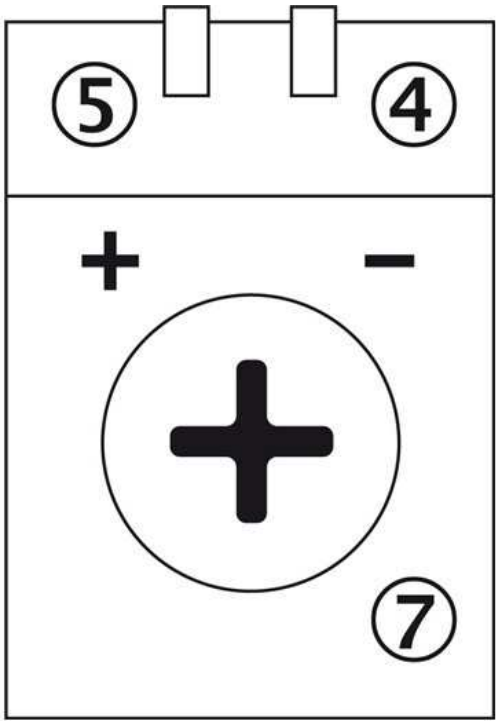
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Dimensional drawing



|1| Optical axis, receiver
|2| Optical axis, sender
|3| Mounting holes M3
|4| Status indicator LED green: power on
|5| Status indicator LED,
yellow: Status of received light beam
|6| Light/ dark rotary switch:L =
light switching, D = dark switching

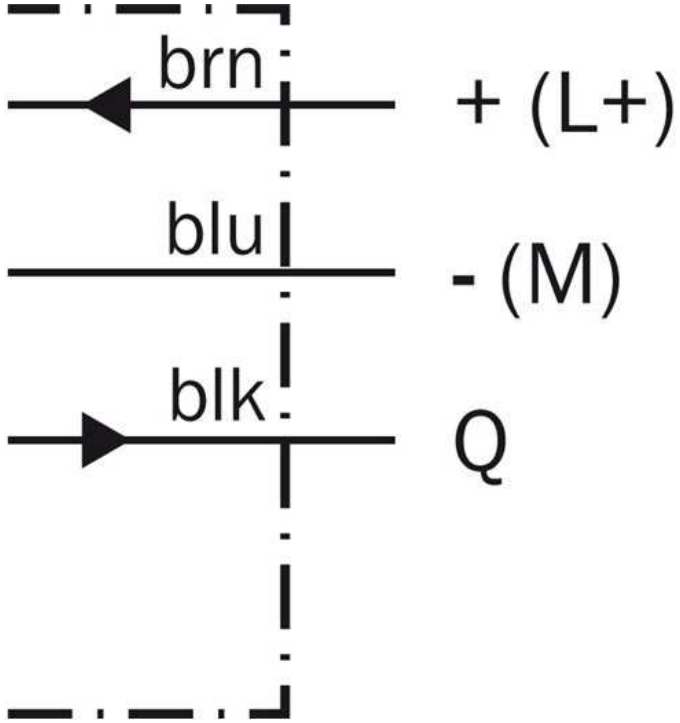
Adjustments possible



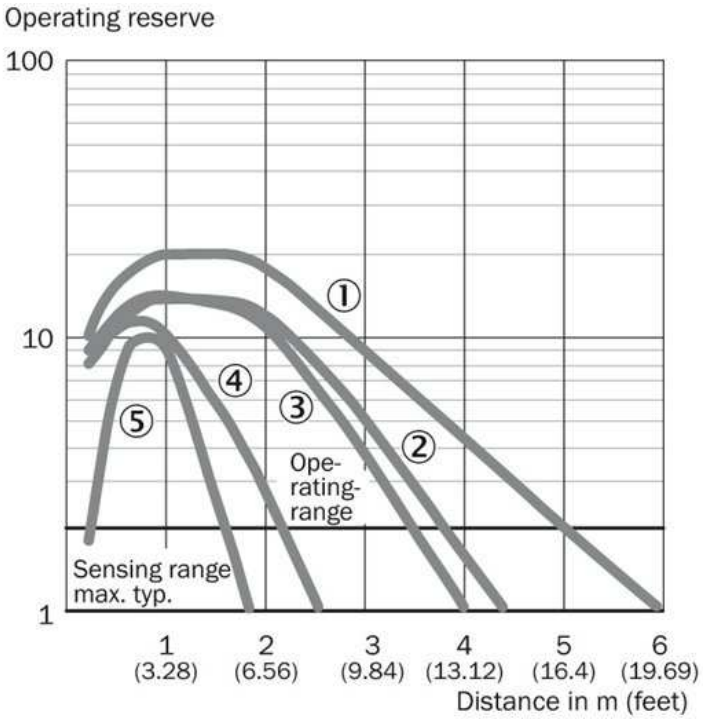
|4| Status indicator LED green: power on
|5| Status indicator LED,
yellow: Status of received light beam
|7| Sensitivity adjustment: poti

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Connection diagram



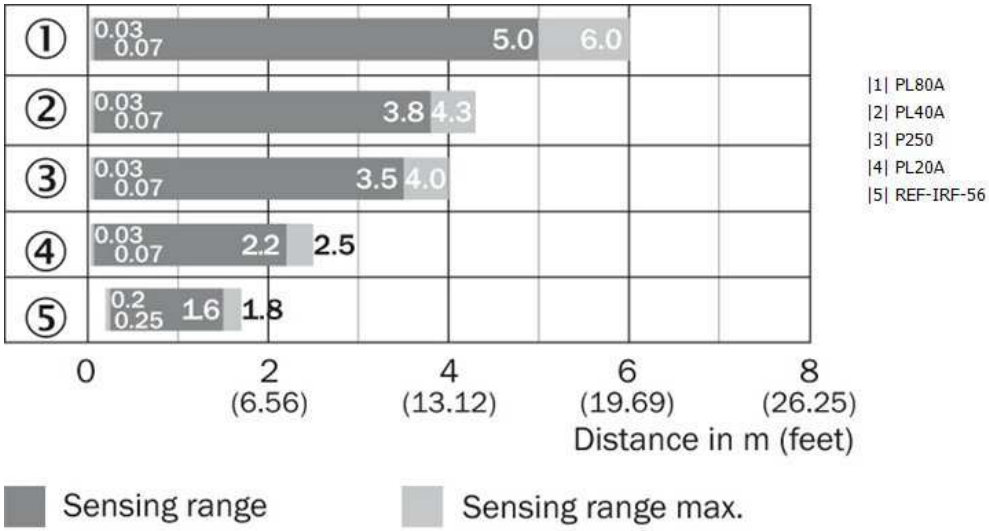
Characteristic curve



|1| PL80A
|2| PL40A
|3| P250
|4| PL20A
|5| REF-IRF-56

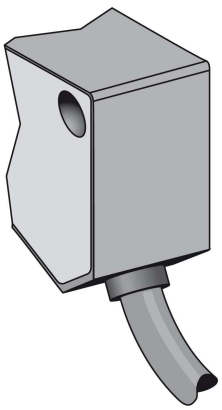
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Sensing range diagram

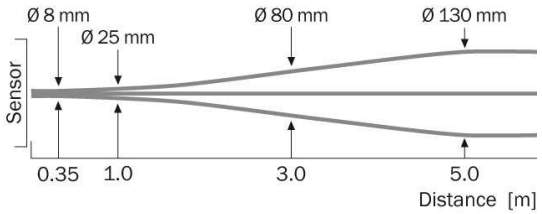


|1| PL80A
|2| PL40A
|3| P250
|4| PL20A
|5| REF-IRF-56

Connection type



Light spot size



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