



Photoelectric sensors
G6, Photoelectric retro-reflective sensor,
Standard optics

GL6G-P1212



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

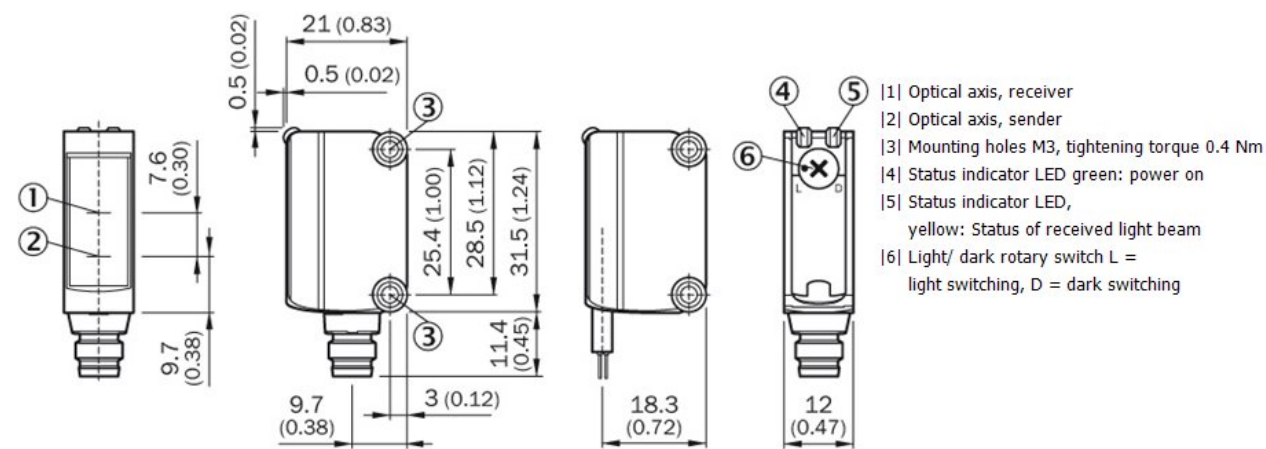
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	≤ 30 mA ²⁾

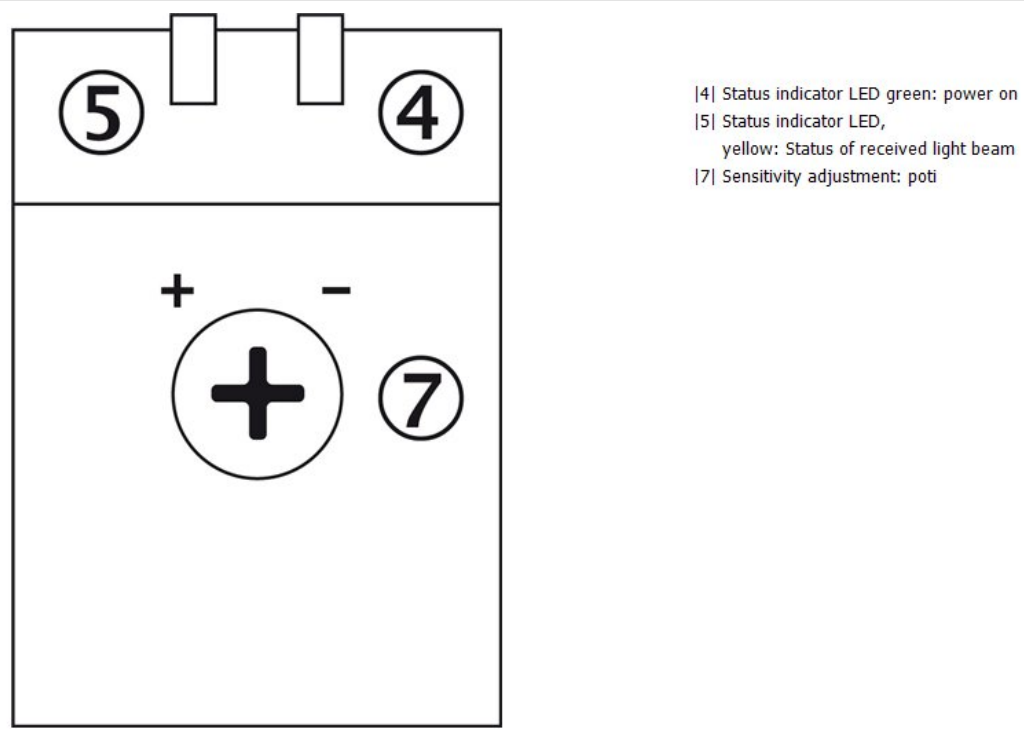
Output type:	PNP
Switching mode:	Light/dark-switching
Switching mode selector:	Selectable via light/dark selector
Signal voltage PNP HIGH/LOW:	VS - (≤ 3 V)/approx. 0 V
Output current I _{max} :	≤ 100 mA ³⁾
Response time:	< 625 μ s ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Attenuation along light beam:	> 20 %
Connection type:	Cable, 3-wire, 2 m ⁶⁾
Cable material:	PVC
Conductor cross-section:	0.14 mm ²
Circuit protection:::	A, B, D ⁷⁾ 8) 9)
Weight:	60 g
Polarisation filter:	✓
AS-Interface-Chip:	-
Housing material:	ABS/PC, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Stainless steel mounting bracket (1.4301/304) BEF-W100-A, Reflector P250
Special feature:	For transparent objects
Ambient operating temperature:	-25 °C ... 55 °C ¹⁰⁾
Ambient storage temperature:	-40 °C ... 70 °C

¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ Without load ³⁾ At VS > 24 V, I_A max = 50 mA 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⁾ B = inputs and output reverse-polarity protected ⁹⁾ D = outputs overcurrent and short-circuit protected ¹⁰⁾ Temperature stability after adjustment +/-10°C

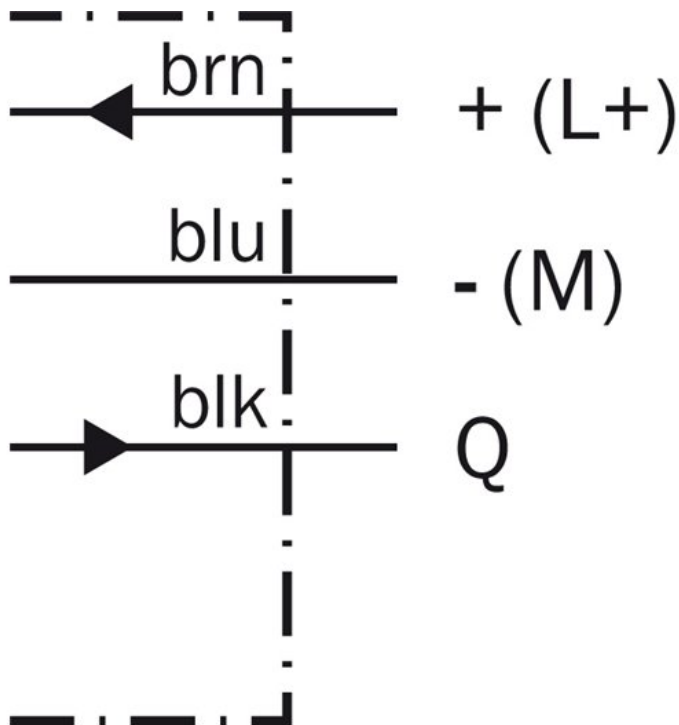
Dimensional drawing



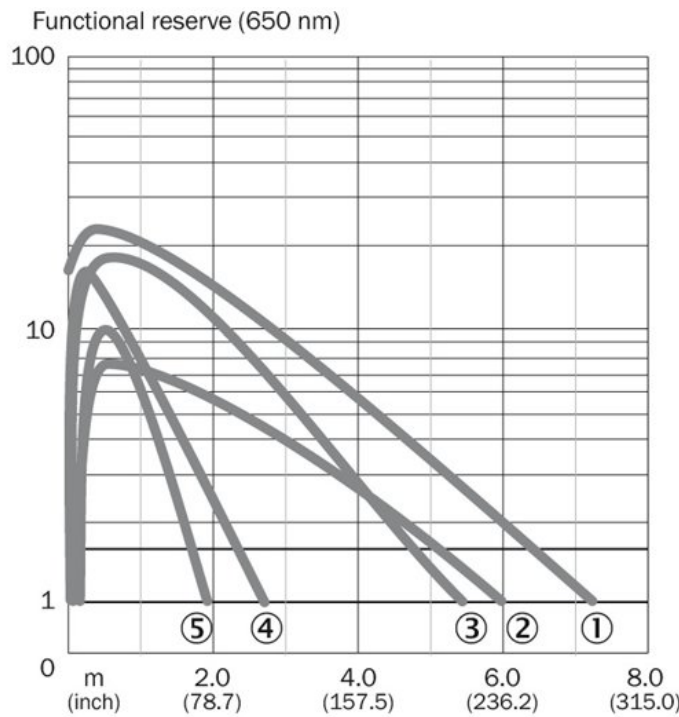
Adjustments possible



Connection diagram

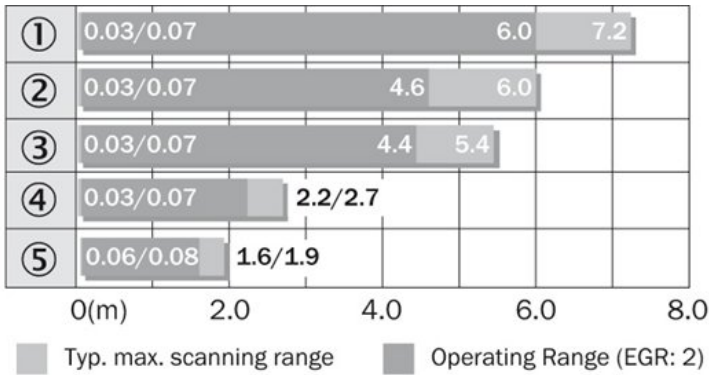


Characteristic curve



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

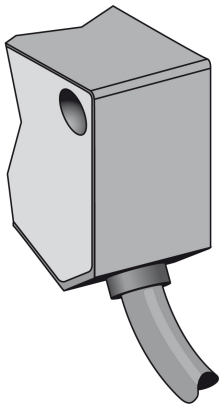
Sensing range diagram



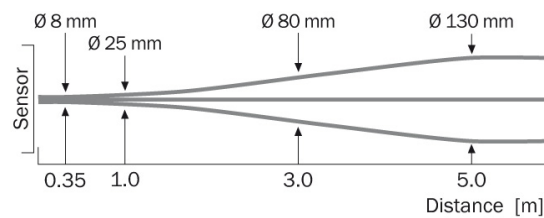
- |1| PL80A
- |2| PL40A
- |3| P250
- |4| PL20A
- |5| Reflective tape Diamond Grade

	Reflector type	Operating range
①	PL80A	0.07 ... 6.0 m
②	PL40A	0.07 ... 4.6 m
③	P250	0.07 ... 4.4 m
④	PL20A	0.07 ... 2.2 m
⑤	Reflective tape Diamond Grade	0.08 ... 1.6 m

Connection type



Light spot size



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