



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

GL6G-N4212



Model Name > **GL6G-N4212**
Part No. > **1060809**



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

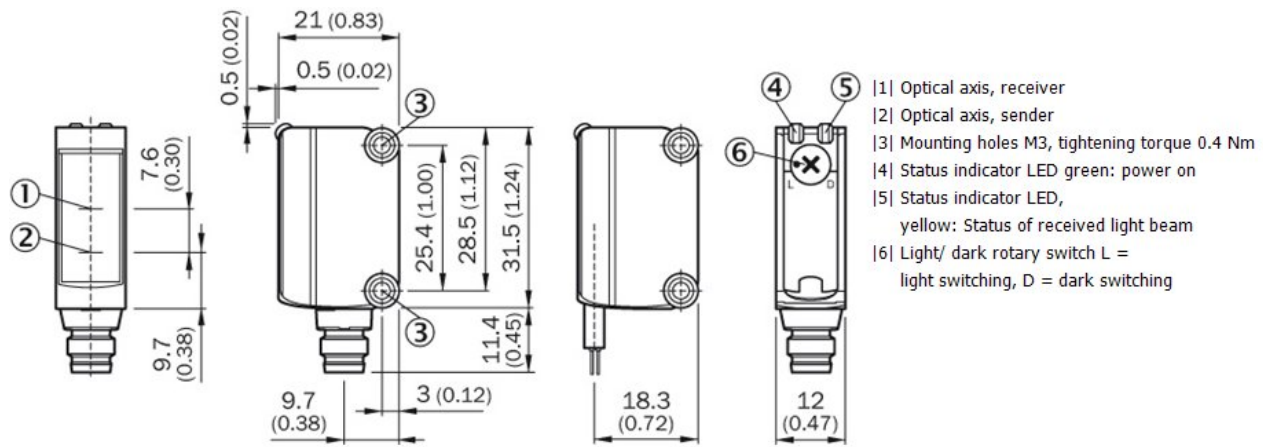
Mechanics/electronics

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

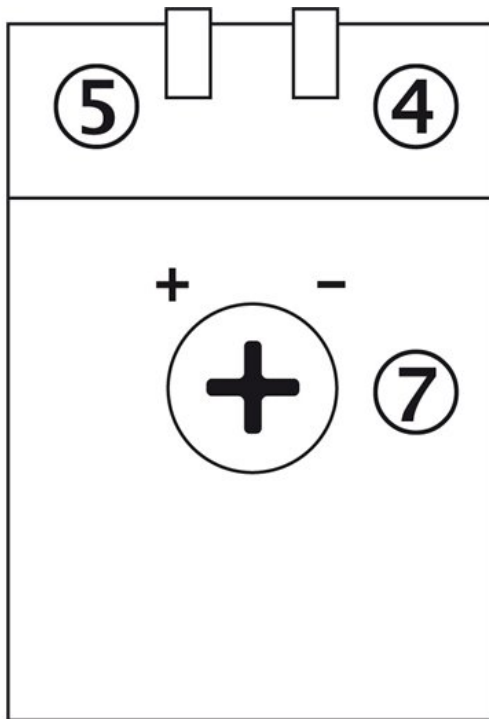
Output type:	NPN, open collector
Switching mode:	Light/dark-switching
Switching mode selector:	Selectable via light/dark selector
Signal voltage NPN HIGH/LOW:	Approx. $V_S / \leq 3 \text{ V}$
Output current I_{max} :	$\leq 100 \text{ mA}$ ³⁾
Response time:	$< 625 \mu\text{s}$ ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Attenuation along light beam:	$> 20 \%$
Connection type:	Connector M8, 4-pin
Circuit protection:::	A, B, D ⁶⁾ ⁷⁾ ⁸⁾
Weight:	20 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:	$-25 \text{ }^{\circ}\text{C} \dots 55 \text{ }^{\circ}\text{C}$ ⁹⁾
Ambient storage temperature:	$-40 \text{ }^{\circ}\text{C} \dots 70 \text{ }^{\circ}\text{C}$

¹⁾ Limit values, operation in short-circuit protected network max. 8 A
 ²⁾ Without load
 ³⁾ At $V_S > 24 \text{ V}$, $I_{\text{A max}} = 50 \text{ mA}$
 ⁴⁾ Signal transit time with resistive load
 ⁵⁾ With light/dark ratio 1:1
 ⁶⁾ $A = V_S$ connections reverse-polarity protected
 ⁷⁾ B = inputs and output reverse-polarity protected
 ⁸⁾ D = outputs overcurrent and short-circuit protected
 ⁹⁾ Temperature stability after adjustment $\pm 10^{\circ}\text{C}$

Dimensional drawing

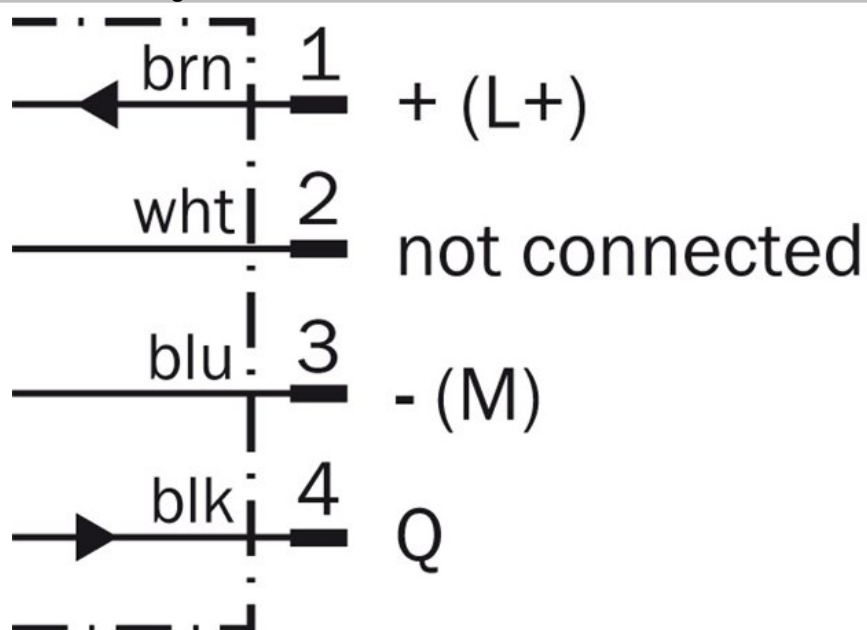


Adjustments possible

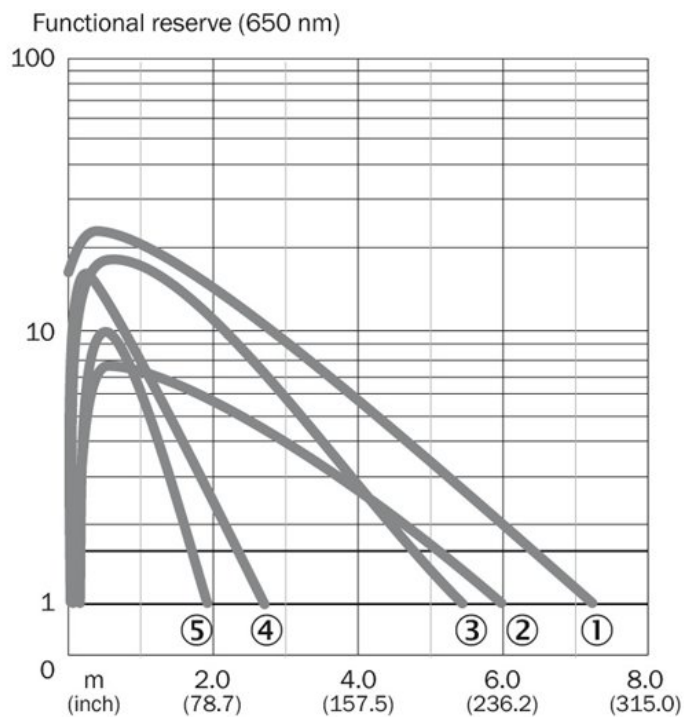


- 4] Status indicator LED green: power on
- 5] Status indicator LED, yellow: Status of received light beam
- 7] Sensitivity adjustment: poti

Connection diagram

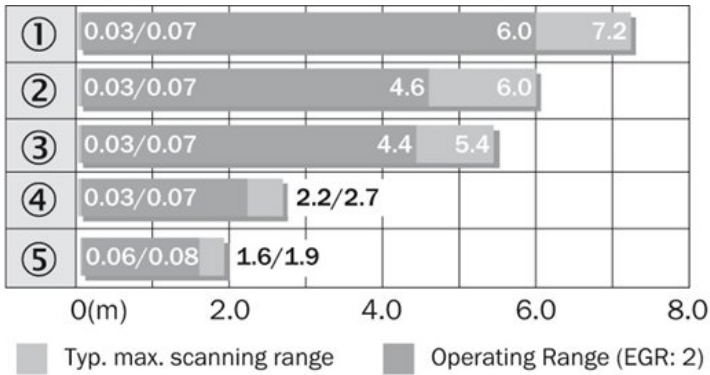


Characteristic curve



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

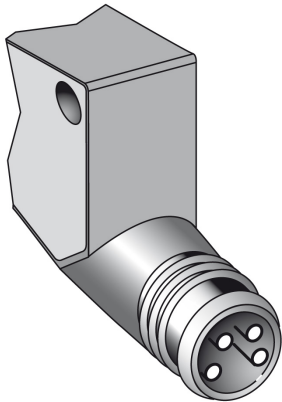
Sensing range diagram



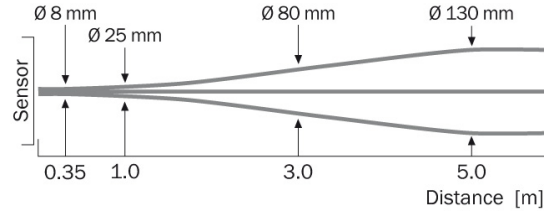
- |1| PL80A
- |2| PL40A
- |3| P250
- |4| PL20A
- |5| Reflective tape Diamond Grade

	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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