



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

GL6-N1112



**Model Name** > [GL6-N1112](#)  
**Part No.** > [1051780](#)



*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
- 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



**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 <sup>1)</sup>
Sensing range:	≤ 5 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	PinPoint LED <sup>3)</sup>
Wave length:	650 nm
Light spot size (distance):	Ø 8 mm (350 mm)

<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

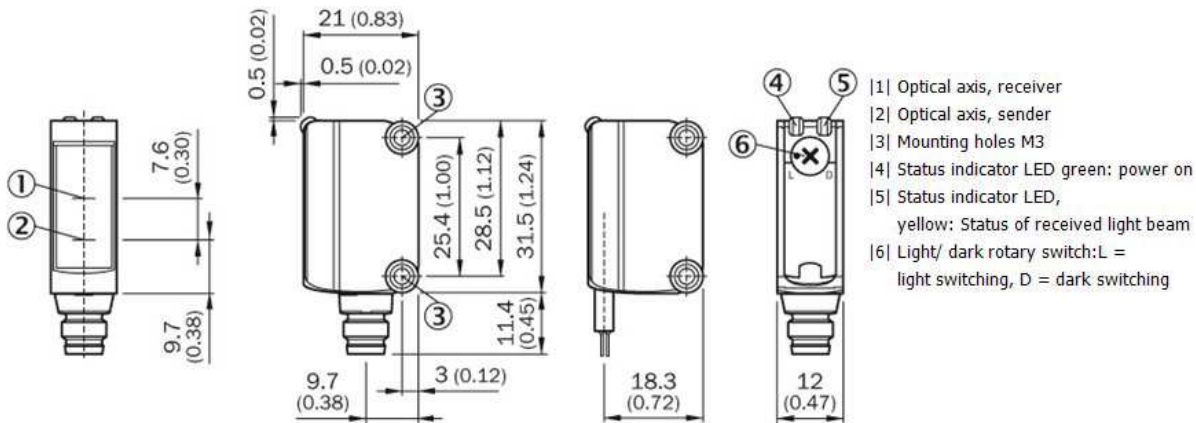
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	± 10 % <sup>2)</sup>
Power consumption:	≤ 30 mA <sup>3)</sup>
Output type:	NPN, open collector
Switching mode:	Light/dark switching

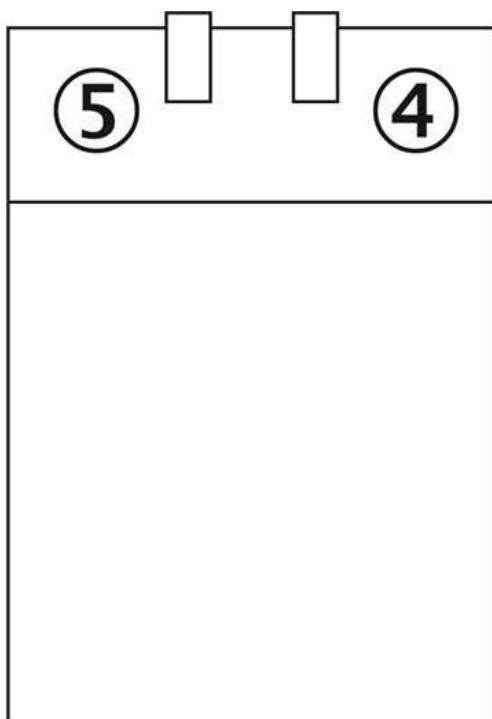
Switching mode selector:	Selectable via light/dark selector
Output current I <sub>max</sub> ..:	≤ 100 mA <sup>4)</sup>
Response time:	< 625 μs <sup>5)</sup>
Switching frequency:	1,000 Hz <sup>6)</sup>
Connection type:	Cable, 3-wire, 2 m <sup>7)</sup>
Cable material:	PVC
Conductor cross-section:	0.14 mm <sup>2</sup>
Circuit protection:::	A, B, D <sup>8) 9) 10)</sup>
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
Ambient operating temperature:	-25 °C ... +55 °C <sup>11)</sup>
Ambient storage temperature:	-40 °C ... +70 °C
UL File No.:	NRKH.E348498 & NRKH7.E348498
Signal voltage NPN HIGH/LOW:	Approx. V <sub>S</sub> /≤ 3 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<sub>S</sub> tolerances    3) Without load    4) At V<sub>S</sub> > 24 V, I<sub>A</sub> 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<sub>S</sub> 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

### Dimensional drawing

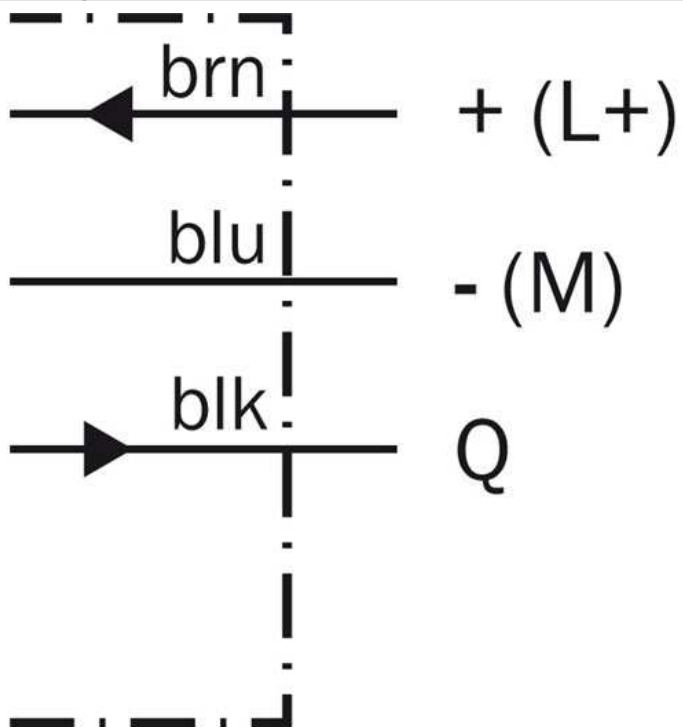


## Adjustments possible



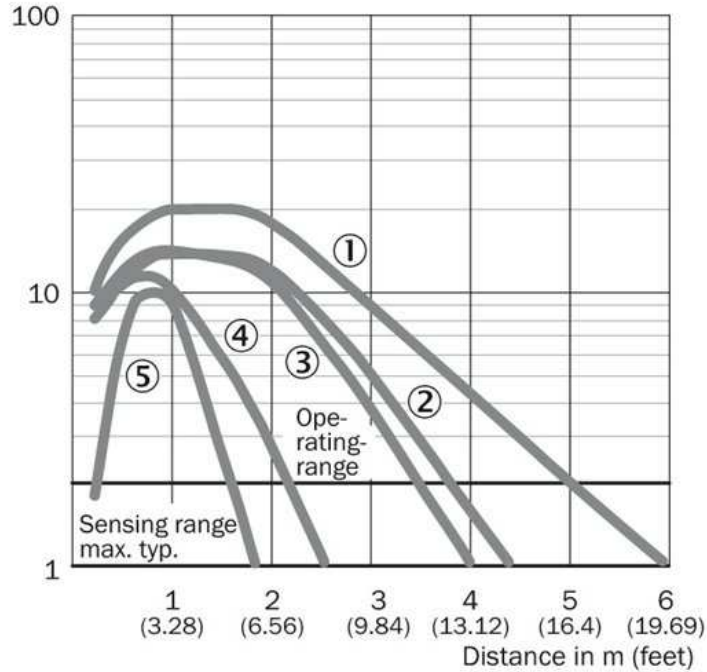
- |4| Status indicator LED green: power on
- |5| Status indicator LED,  
yellow: Status of received light beam

## Connection diagram



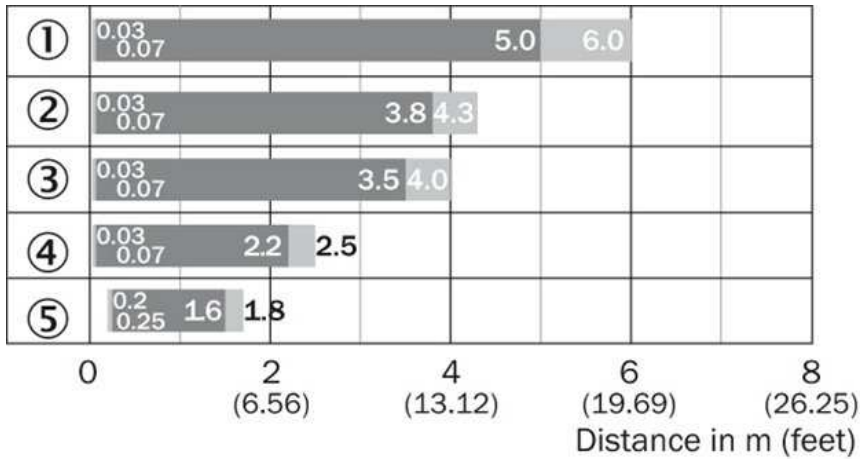
## Characteristic curve

Operating reserve



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

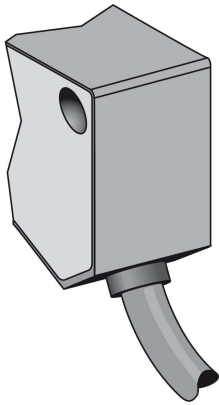
## Sensing range diagram



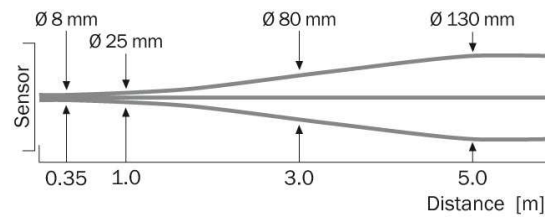
- |1| PL80A
- |2| PL40A
- |3| P250
- |4| PL20A
- |5| REF-IRF-56

■ Sensing range      ■ Sensing range max.

## Connection type



## Light spot size



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