



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

GL6-P7312



**Model Name** > [GL6-P7312](#)  
**Part No.** > [1066208](#)



*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

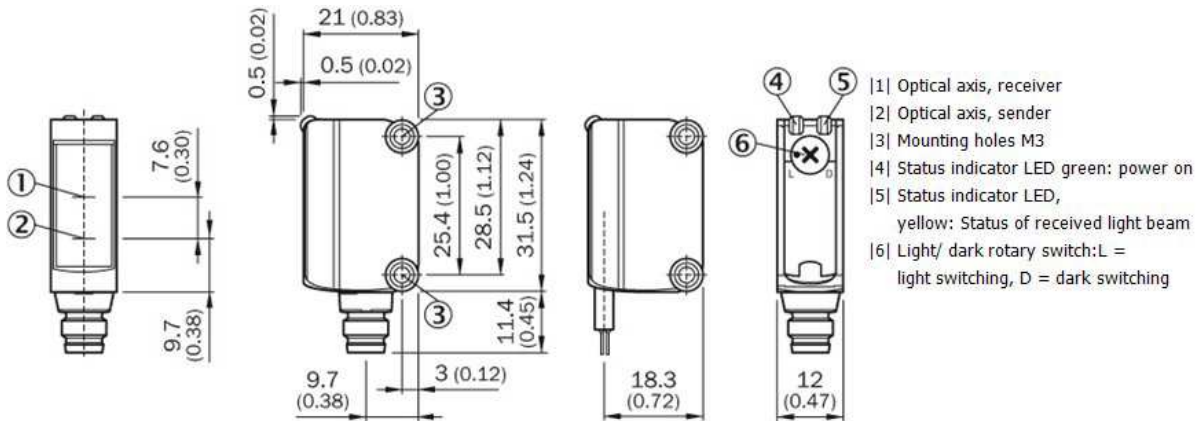
**Mechanics/electronics**

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:	PNP
Switching mode:	Dark switching

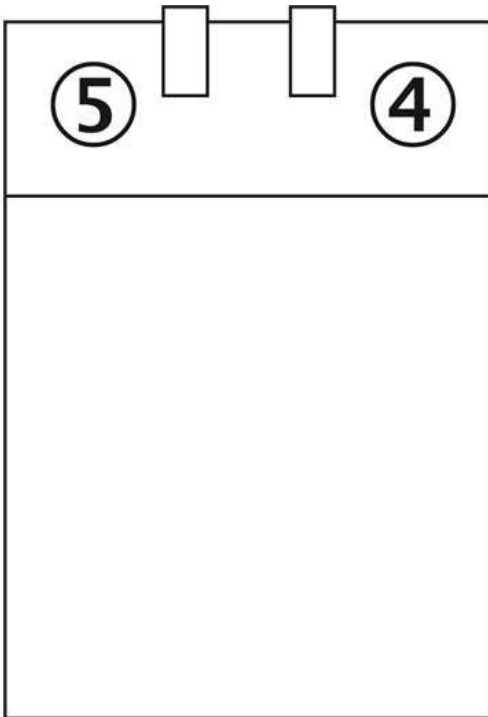
Output current I <sub>max</sub> :	≤ 100 mA <sup>4)</sup>
Response time:	< 625 μs <sup>5)</sup>
Switching frequency:	1,000 Hz <sup>6)</sup>
Connection type:	Connector M12, 4-pin, 300 mm <sup>7)</sup>
Cable material:	PVC
Conductor cross-section:	0.14 mm <sup>2</sup>
Circuit protection:::	A, B, D <sup>8)</sup> 9) 10)
Protection class:	III
Weight:	60 g
Polarisation filter:	✓
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Mounting bracket BEF-W100-A, Reflector P250
Ambient temperature operation:	-25 °C ... +55 °C <sup>11)</sup>
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<sup>2)</sup> May not exceed or fall short of V<sub>S</sub> tolerances<sup>3)</sup> Without load<sup>4)</sup> At V<sub>S</sub> > 24 V, I<sub>max</sub> = 50 mA  
5) Signal transit time with resistive load<sup>6)</sup> With light/dark ratio 1:1<sup>7)</sup> Do not bend below 0 °C<sup>8)</sup> A = V<sub>S</sub> connections reverse-polarity protected<sup>9)</sup> B = inputs and output reverse-polarity protected<sup>10)</sup> D = outputs overcurrent and short-circuit protected<sup>11)</sup> Temperature stability after adjustment +/-10°C

## Dimensional drawing



Adjustments possible



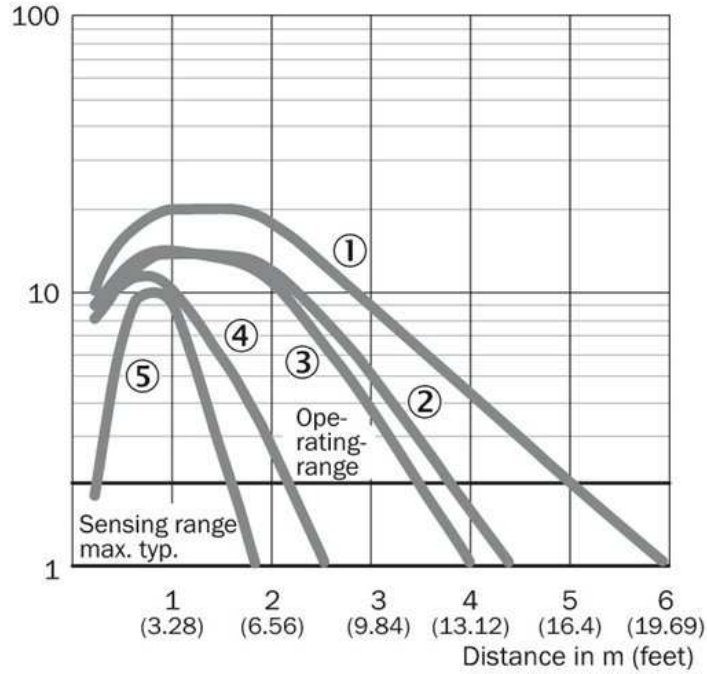
- |4| Status indicator LED green: power on
- |5| Status indicator LED,  
yellow: Status of received light beam

Connection diagram



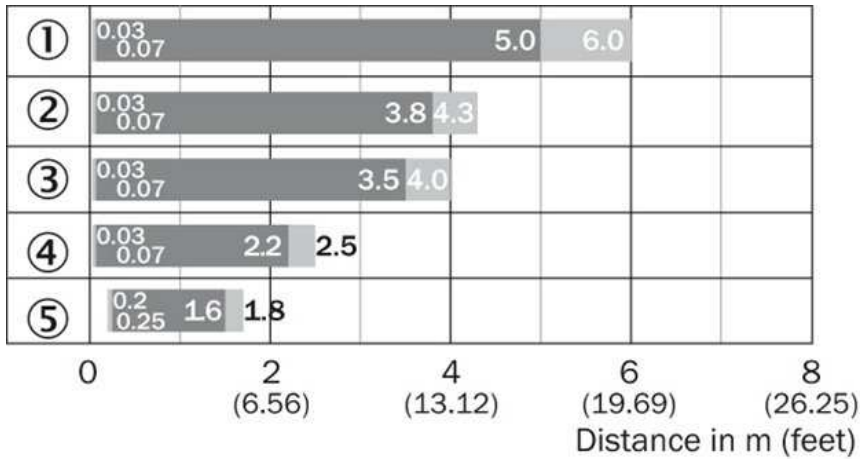
## Characteristic curve

Operating reserve



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

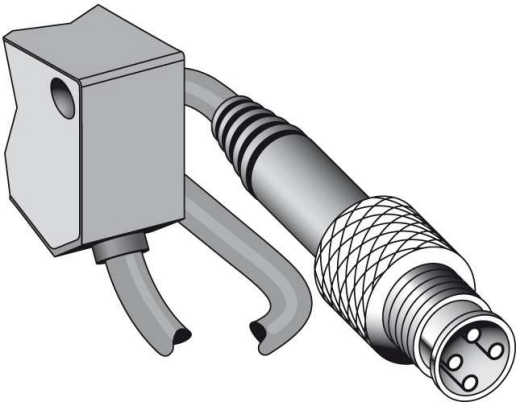
## Sensing range diagram



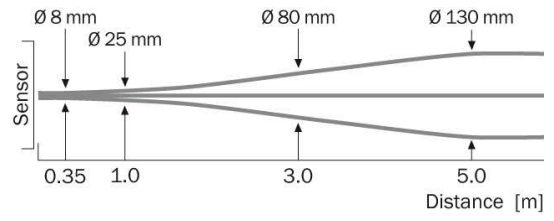
- |1| PL80A
- |2| PL40A
- |3| P250
- |4| PL20A
- |5| REF-IRF-56

■ Sensing range      ■ Sensing range max.

### Connection type



### Light spot size



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