



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

GL6-N4111



**Model Name** > [GL6-N4111](#)  
**Part No.** > [1050707](#)



*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

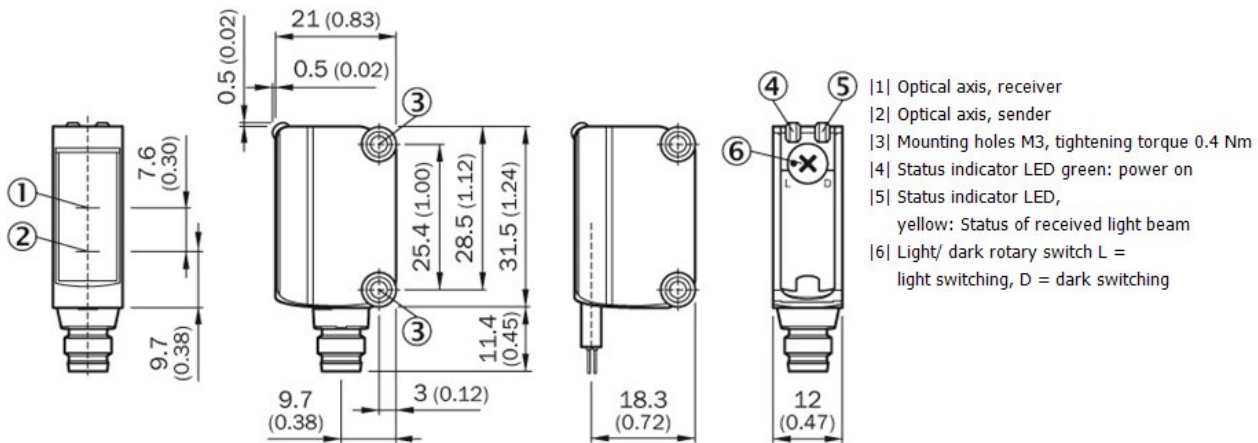
#### Mechanics/electronics

|                          |                                    |
|--------------------------|------------------------------------|
| Supply voltage:          | 10 V DC ... 30 V DC <sup>1)</sup>  |
| Power consumption:       | ≤ 30 mA <sup>2)</sup>              |
| Output type:             | NPN, open collector                |
| Switching mode:          | Light/dark-switching               |
| Switching mode selector: | Selectable via light/dark selector |

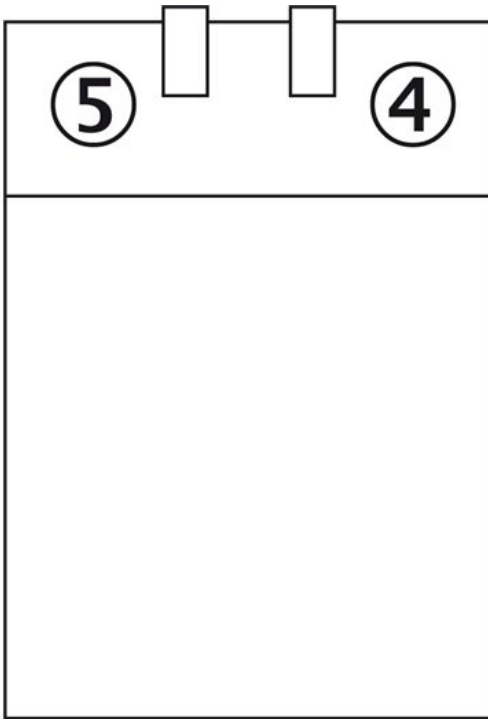
|                                   |                                                                |
|-----------------------------------|----------------------------------------------------------------|
| Signal voltage NPN HIGH/LOW:      | Approx. $V_S/\leq 3\text{ V}$                                  |
| Output current $I_{\text{max}}$ : | $\leq 100\text{ mA}$ <sup>3)</sup>                             |
| Response time:                    | $< 625\text{ }\mu\text{s}$ <sup>4)</sup>                       |
| Switching frequency:              | $1,000\text{ Hz}$ <sup>5)</sup>                                |
| Connection type:                  | Connector M8, 4-pin                                            |
| Circuit protection:::             | A, B, D <sup>6)</sup> <sup>7)</sup> <sup>8)</sup>              |
| Weight:                           | 20 g                                                           |
| Polarisation filter:              | ✓                                                              |
| AS-Interface-Chip:                | -                                                              |
| Special device:                   | -                                                              |
| Housing material:                 | ABS/PC, Plastic                                                |
| Optics material:                  | PMMA                                                           |
| Enclosure rating:                 | IP 67                                                          |
| Ambient operating temperature:    | $-25\text{ }^{\circ}\text{C} \dots 55\text{ }^{\circ}\text{C}$ |
| 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  
light/dark ratio 1:1 6)  $A = V_S$  connections reverse-polarity protected  
2) Without load 3) At  $V_S > 24\text{ V}$ ,  $I_A \text{ max} = 50\text{ mA}$  4) Signal transit time with resistive load 5) With  
7) B = inputs and output reverse-polarity protected 8) D = outputs overcurrent and short-circuit  
protected

## Dimensional drawing

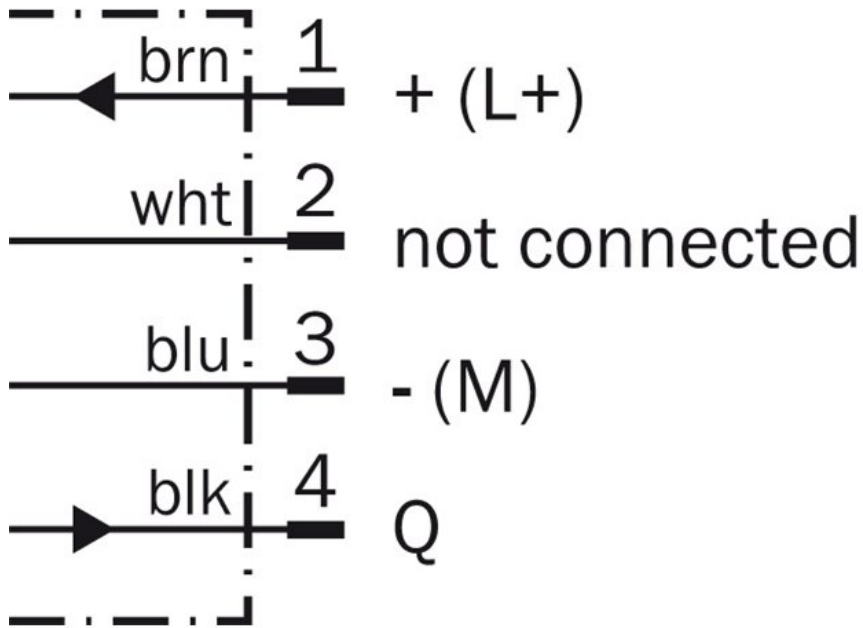


Adjustments possible

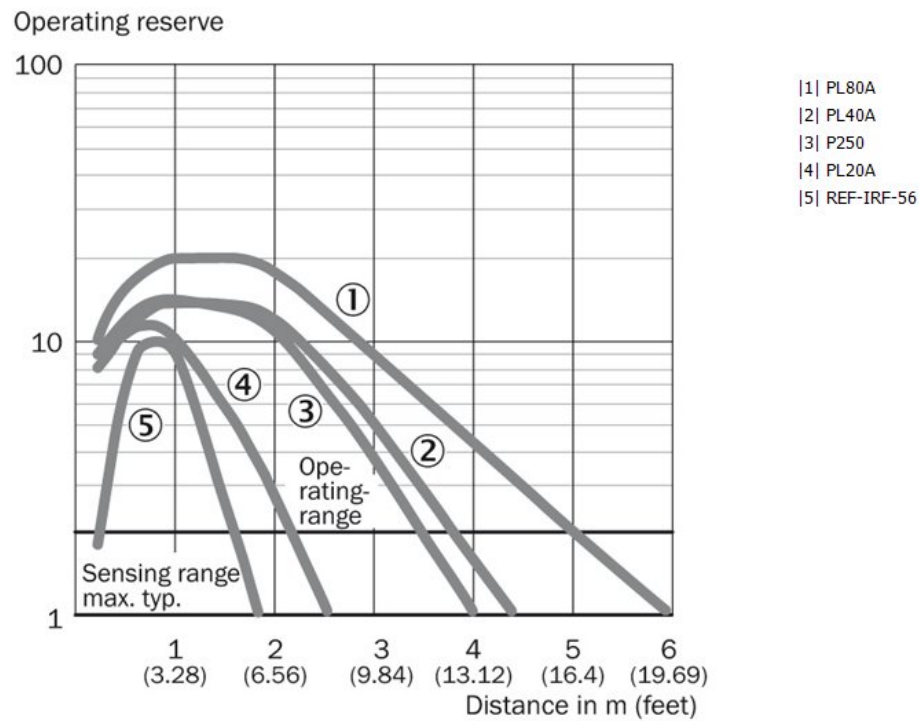


- |4| Status indicator LED green: power on
- |5| Status indicator LED,  
yellow: Status of received light beam

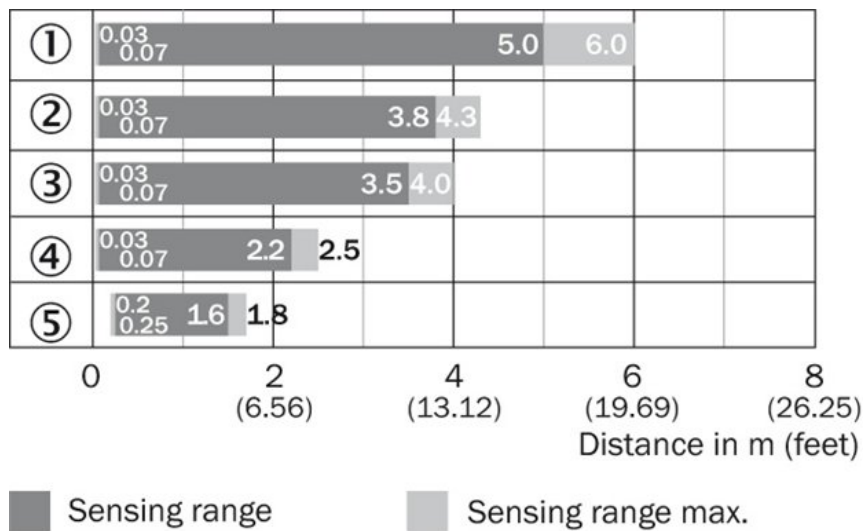
Connection diagram



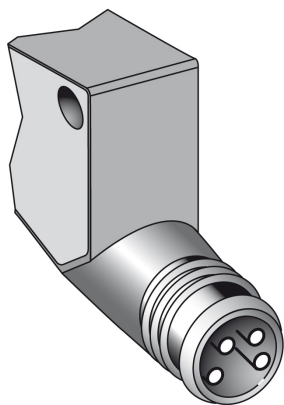
Characteristic curve



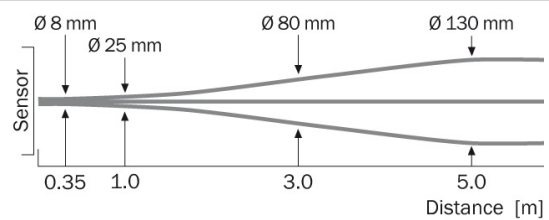
Sensing range diagram



## Connection type



## Light spot size



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