



Photoelectric sensors  
G6, Through-beam photoelectric sensor

GSE6-N7112



**Model Name** > [GSE6-N7112](#)  
**Part No.** > [1054835](#)



*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 (depending on type)
- 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 and excellent reliability
- 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:	Through-beam photoelectric sensor
Dimensions (W x H x D):	12 mm x 31.5 mm x 21 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 15 m
Sensing range:	0 m ... 10 m
Type of light:	Visible red light
Light source:	PinPoint LED <sup>1)</sup>
Wave length:	650 nm
Light spot diameter (distance):	Ø 375 mm (12 m)

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

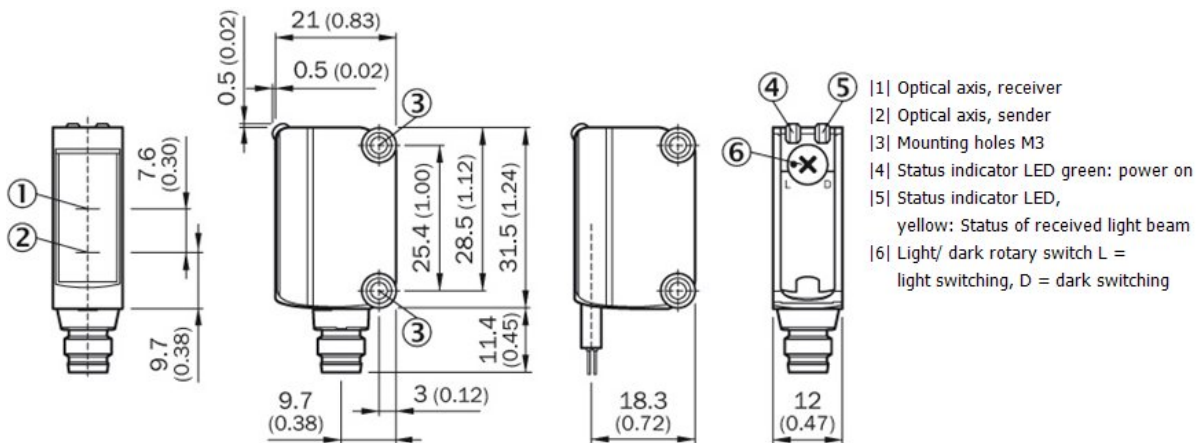
**Mechanics/electronics**

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
Switching mode:	Light/dark-switching

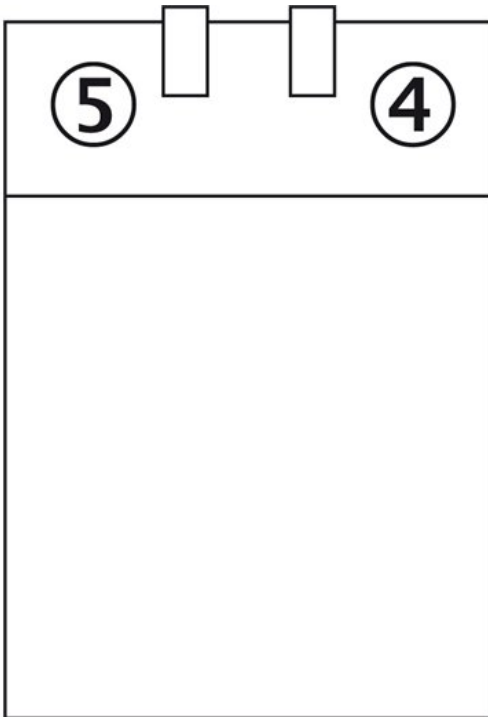
Switching mode selector:	Selectable via light/dark selector
Signal voltage PNP HIGH/LOW:	$V_S - (\leq 3 \text{ V}) / \text{approx. } 0 \text{ V}$
Output current $I_{\text{max}}$ :	$\leq 100 \text{ mA}$ <sup>4)</sup>
Response time:	$< 500 \mu\text{s}$ <sup>5)</sup>
Switching frequency:	$1,000 \text{ Hz}$ <sup>6)</sup>
Connection type:	Cable with connector M12, 4-pin, 300 mm <sup>7)</sup>
Circuit protection:::	A, B, D <sup>8) 9) 10)</sup>
Protection class:	III
Weight:	40 g
Polarisation filter:	-
AS-Interface-Chip:	-
Housing material:	ABS/PC
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Stainless steel mounting bracket (1.4301/304) BEF-W100-A
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<sup>2)</sup> May not exceed or fall short of  $V_S$  tolerances<sup>3)</sup> Without load<sup>4)</sup> At  $V_S > 24 \text{ V}$ ,  $I_{\text{max}} = 50 \text{ mA}$   
5) Signal transit time with resistive load<sup>6)</sup> With light/dark ratio 1:1<sup>7)</sup> Do not bend below  $0 \text{ }^\circ\text{C}$ <sup>8)</sup>  $A = V_S$  connections reverse-polarity protected<sup>9)</sup> B = inputs and output reverse-polarity protected<sup>10)</sup> D = outputs overcurrent and short-circuit protected

## Dimensional drawing



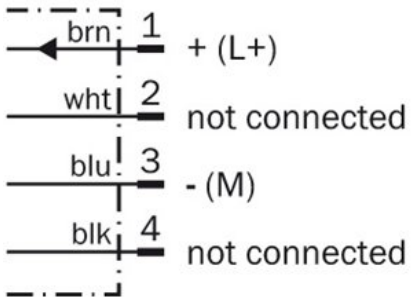
## Adjustments possible



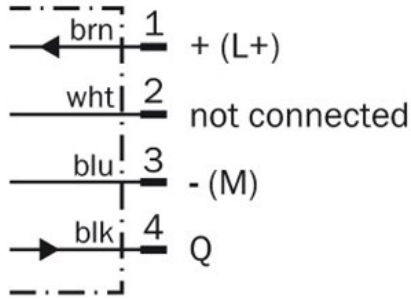
- |4| Status indicator LED green: power on
- |5| Status indicator LED,  
yellow: Status of received light beam

## Connection diagram

①

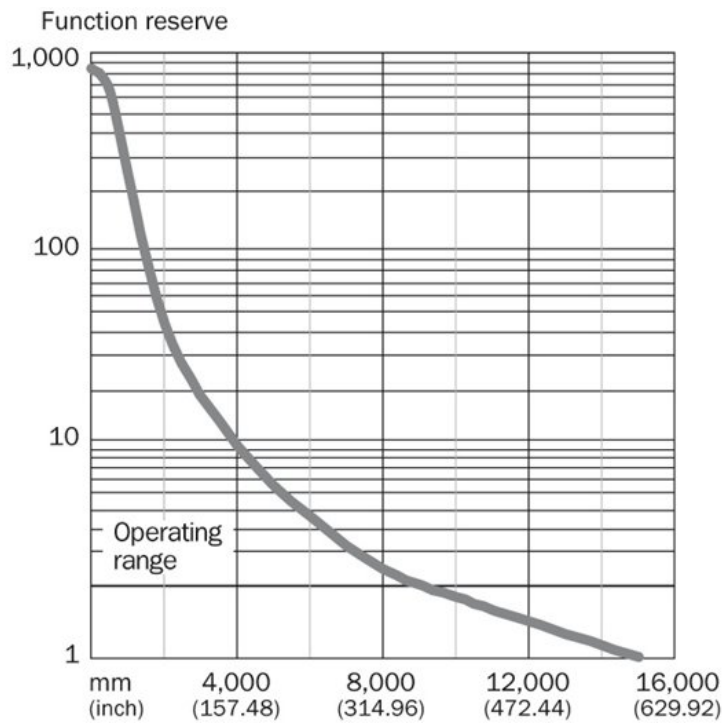


②

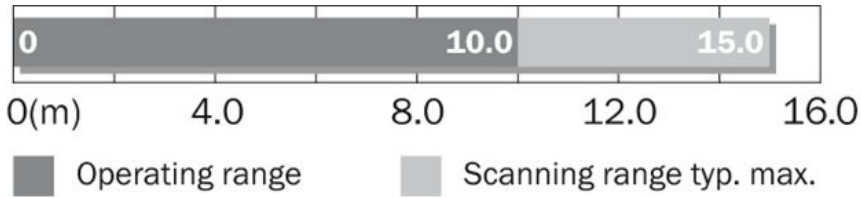


- |1| sender
- |2| receiver

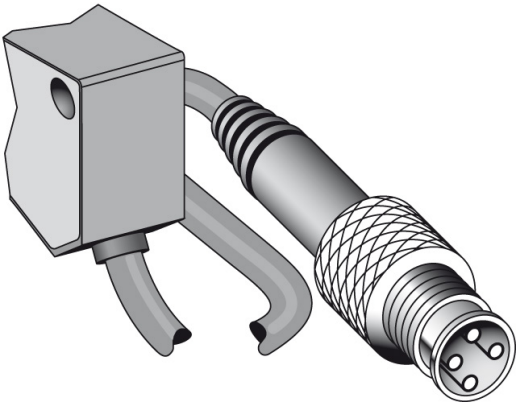
### Characteristic curve



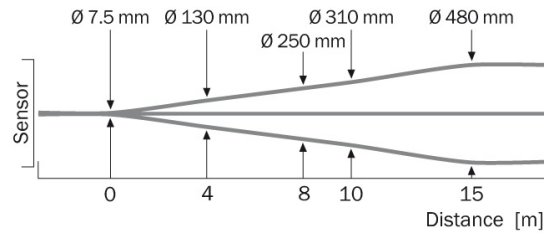
### Sensing range diagram



### Connection type



### Light spot size



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