



Photoelectric sensors G6, Through-beam photoelectric sensor

GSE6-N4112



Model Name > GSE6-N4112
Part No. > 1052451



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 ¹⁾
Wave length:	650 nm
Light spot diameter (distance):	Ø 375 mm (12 m)

¹⁾ Average service life of 100,000 h at $T_A = +25\text{ °C}$

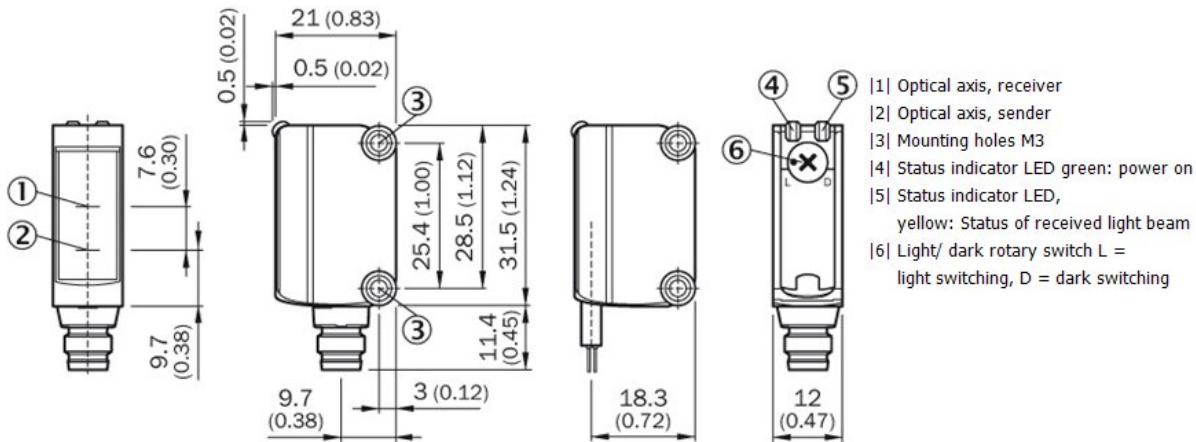
Mechanics/electronics

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

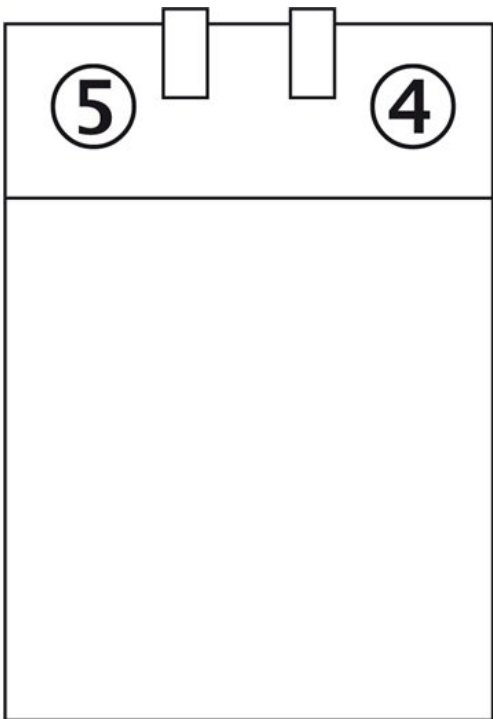
Output characteristic:	Open collector
Switching mode selector:	Selectable via light/dark selector
Signal voltage NPN HIGH/LOW:	Approx. $V_S/\leq 3\text{ V}$
Output current I_{max} :	$\leq 100\text{ mA}$ ⁴⁾
Response time:	$< 500\text{ }\mu\text{s}$ ⁵⁾
Switching frequency:	1,000 Hz ⁶⁾
Connection type:	Connector M8, 4-pin
Circuit protection:::	A, B, D ⁷⁾ ⁸⁾ ⁹⁾
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 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C

- 1) Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ At $V_S > 24\text{ V}$, $I_{\text{A max}} = 50\text{ mA}$
⁵⁾ Signal transit time with resistive load ⁶⁾ With light/dark ratio 1:1 ⁷⁾ $A = V_S$ connections reverse-polarity protected ⁸⁾ B = inputs and output reverse-polarity protected
⁹⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing



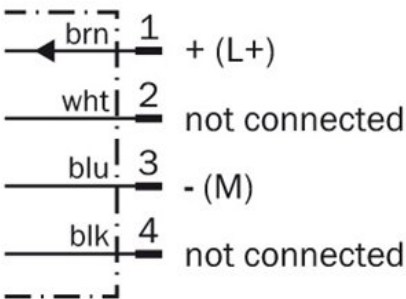
Adjustments possible



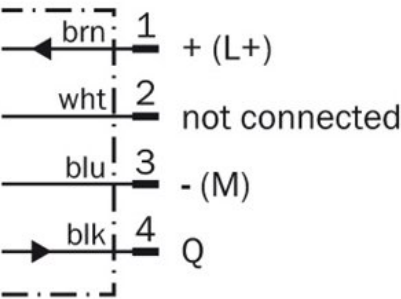
- |4| Status indicator LED green: power on
- |5| Status indicator LED,
yellow: Status of received light beam

Connection diagram

①

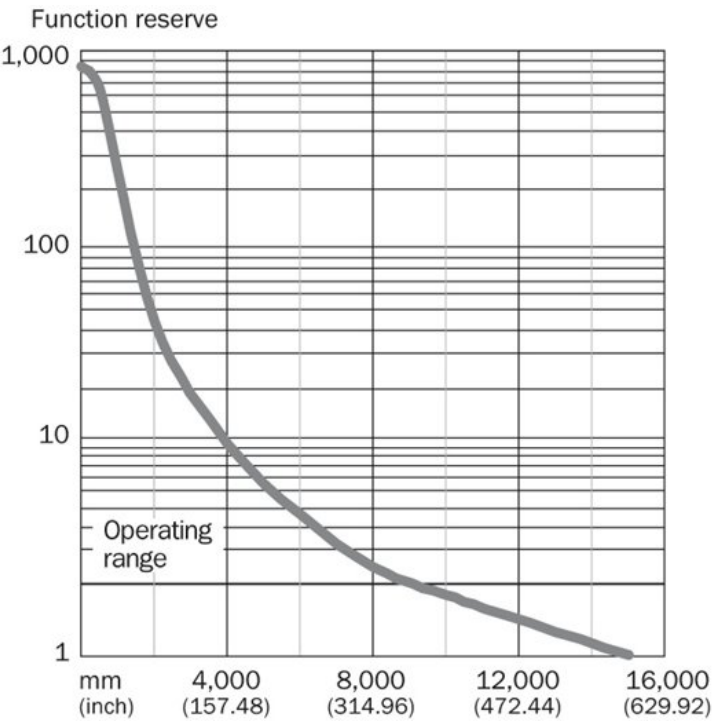


②

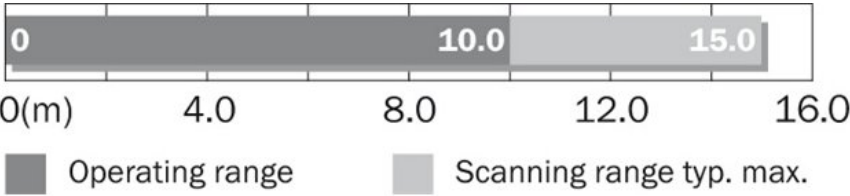


- |1| sender
- |2| receiver

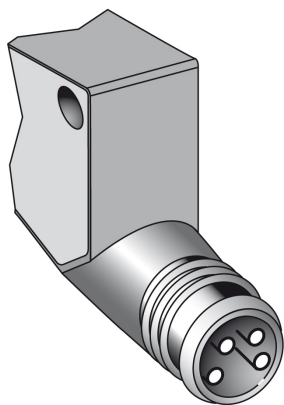
Characteristic curve



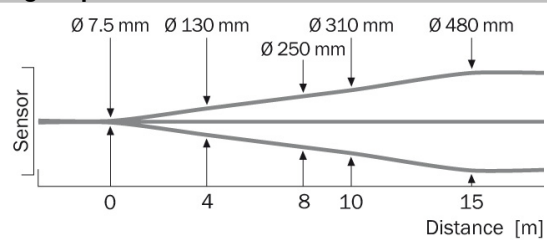
Sensing range diagram



Connection type



Light spot size



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