

ONLINE DATA SHEET
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Photoelectric sensors
G6, Through-beam photoelectric sensor

GSE6-P4212



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G6, Through-beam photoelectric sensor

Model Name > GSE6-P4212
Part No. > 1061396



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
Adjustment:	Potentiometer, 270 °
Light spot size (distance):	Ø 375 mm (12 m)

[1)] Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

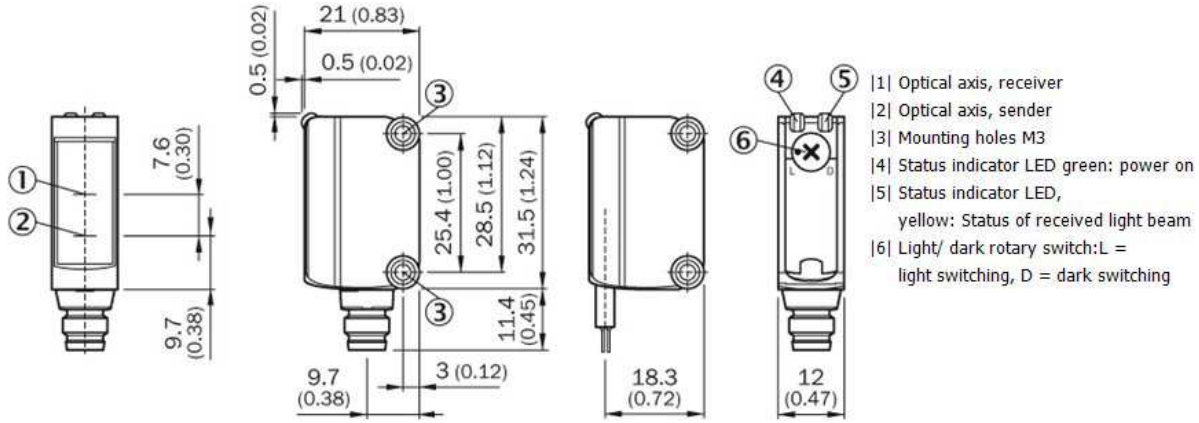
Supply voltage:	10 V DC ... 30 V DC [1)]
Ripple:	± 10 % [2)]
Power consumption:	≤ 30 mA [3)]
Output type:	PNP

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Switching mode:	Light/dark switching
Switching mode selector:	Selectable via light/dark selector
Output current Imax.:	≤ 100 mA [4]
Response time:	< 500 µs [5]
Switching frequency:	1,000 Hz [6]
Connection type:	Connector M8, 4-pin
Cable material:	PVC
Conductor cross-section:	0.14 mm²
Circuit protection:::	A, B, D [7] [8] [9]
Protection class:	III
Weight:	170 g
Polarisation filter:	-
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Stainless steel mounting bracket (1.4301/304) BEF-W100-A
Ambient temperature operation:	-25 °C ... +55 °C [10]
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

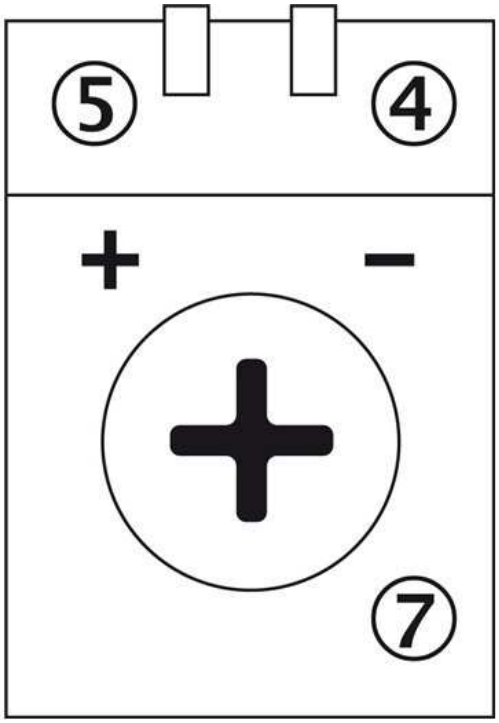
[1] Limit values, operation in short-circuit protected network max. 8 A [2] May not exceed or fall short of V_S tolerances [3] Without load [4] At Vs > 24 V, I_A max = 50 mA
[5] Signal transit time with resistive load [6] With light/dark ratio 1:1 [7] A = V_S connections reverse-polarity protected [8] B = inputs and output reverse-polarity protected
[9] D = outputs overcurrent and short-circuit protected [10] Temperature stability after adjustment +/-10°C

Dimensional drawing



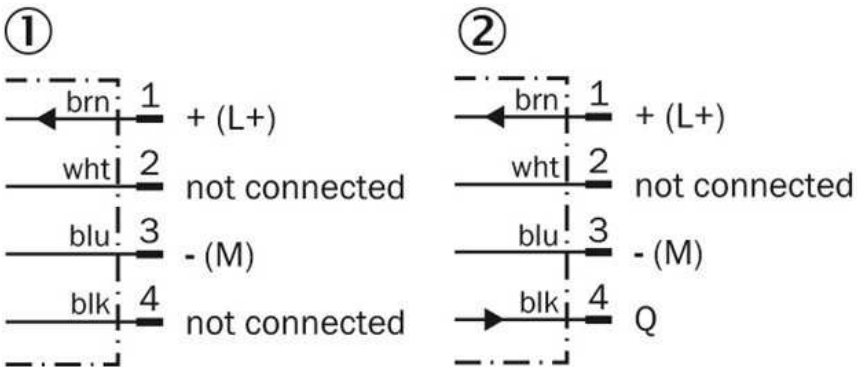
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Adjustments possible



|4| Status indicator LED green: power on
|5| Status indicator LED,
yellow: Status of received light beam
|7| Sensitivity adjustment: poti

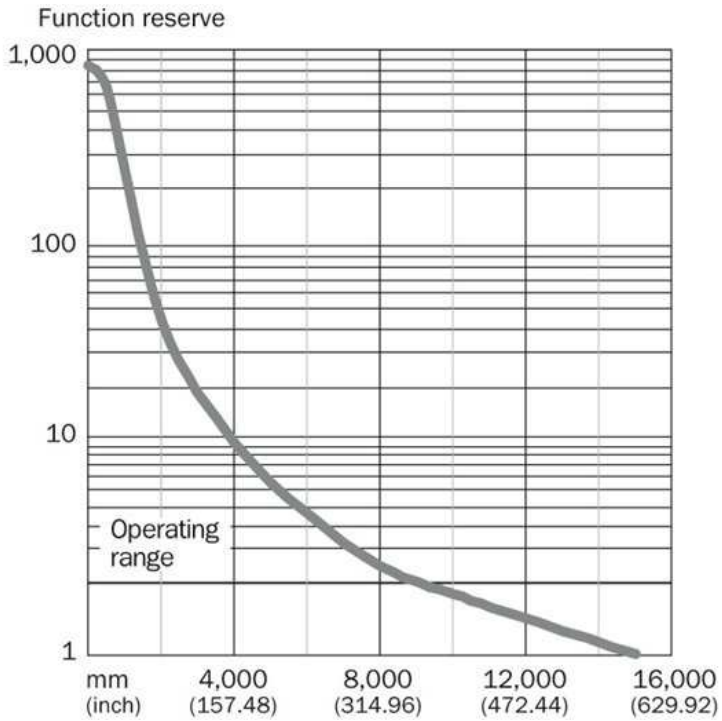
Connection diagram



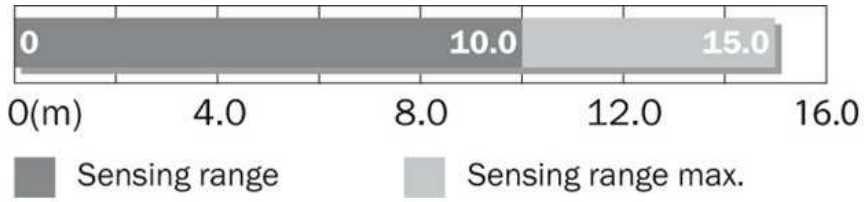
|1| sender
|2| receiver

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Characteristic curve

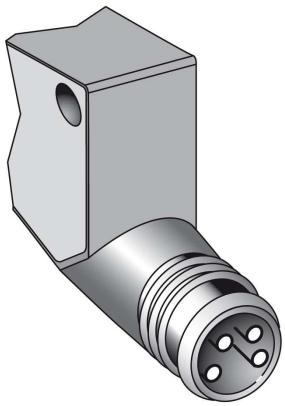


Sensing range diagram

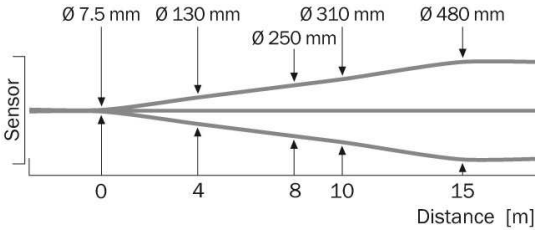


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Connection type



Light spot size



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