



Photoelectric sensors G6, Photoelectric proximity sensor, energetic

GTE6-N1212



Model Name > [GTE6-N1212](#)
Part No. > [1051784](#)



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 proximity sensor, energetic
Dimensions (W x H x D):	12 mm x 31.5 mm x 21 mm
Housing design (light emission):	Rectangular
Sensing range max.:	≤ 300 mm ¹⁾
Sensing range:	≤ 250 mm
Type of light:	Visible red light
Light source:	PinPoint LED ²⁾
Wave length:	650 nm
Adjustment:	Potentiometer, 5-turn
Light spot size (distance):	Ø 7 mm (90 mm)

¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Average service life of 100,000 h at T_A = +25 °C

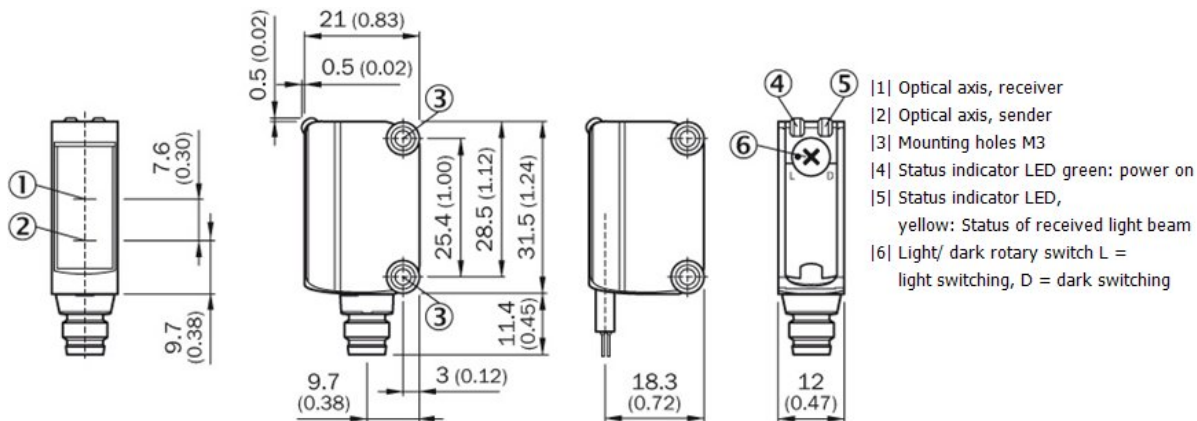
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	≤ 30 mA ²⁾
Output type:	NPN, open collector
Switching mode:	Light/dark-switching

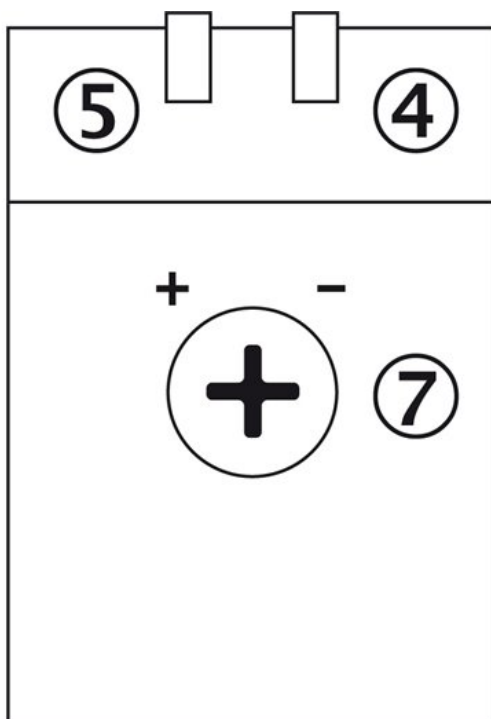
Switching mode selector:	Selectable via light/dark selector
Signal voltage NPN HIGH/LOW:	Approx. $V_S/\leq 3\text{ V}$
Output current I _{max} :	$\leq 100\text{ mA}$ ³⁾
Response time:	$< 1.25\text{ }\mu\text{s}$ ⁴⁾
Switching frequency:	500 Hz ⁵⁾
Connection type:	Cable, 3-wire, 2 m ⁶⁾
Cable material:	PVC
Conductor cross-section:	0.14 mm ²
Circuit protection:::	A, B, D ⁷⁾ ⁸⁾ ⁹⁾
Weight:	60 g
Polarisation filter:	-
AS-Interface-Chip:	-
Housing material:	ABS/PC, Plastic
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⁾ 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 light/dark ratio 1:1 ⁶⁾ Do not bend below 0 °C 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

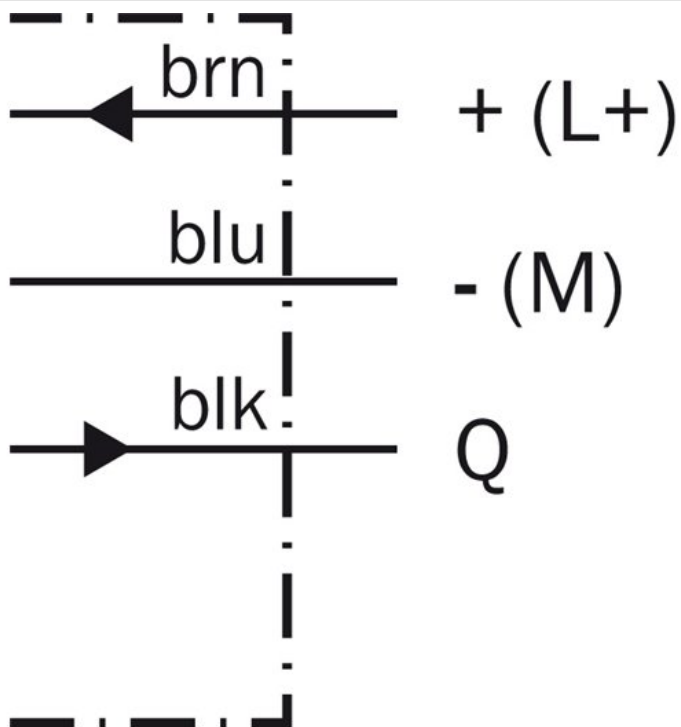


Adjustments possible

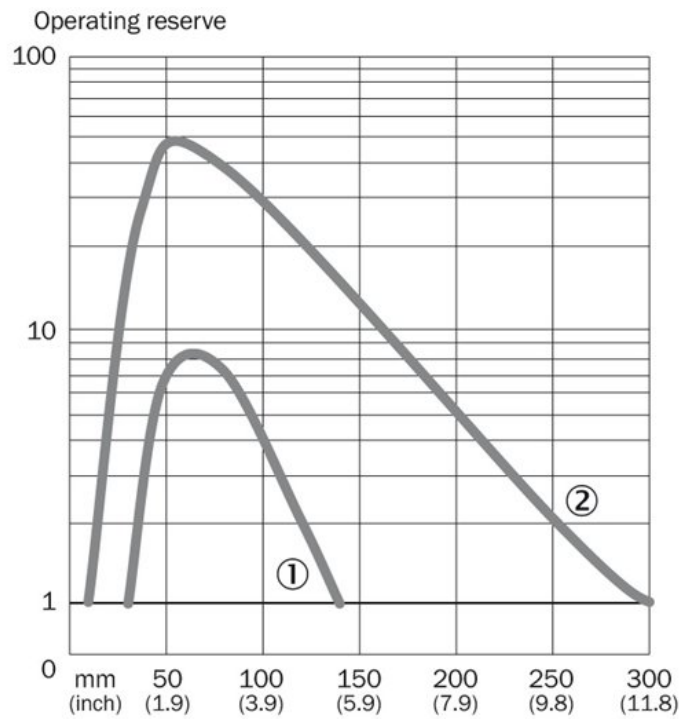


- |4| Status indicator LED green: power on
- |5| Status indicator LED,
yellow: Status of received light beam
- |7| Sensitivity adjustment: poti

Connection diagram

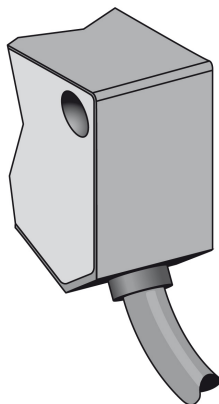


Characteristic curve

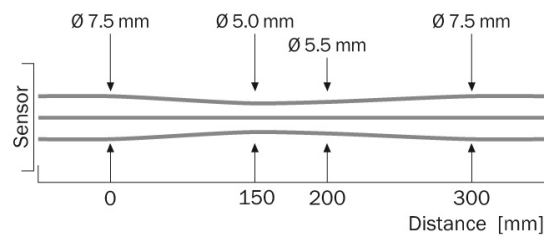


- |1| Sensing range on grey, 18 % remission
- |2| Sensing range on white, 90 % remission

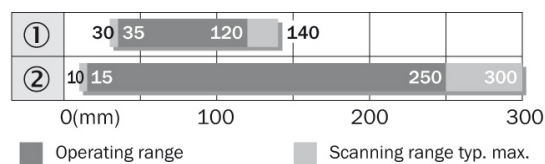
Connection type



Light spot size



Sensing range diagram



- |1| Scanning distance on black, 18 % remission
- |2| Scanning distance on white, 90 % remission

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