



Photoelectric sensors  
G6, Photoelectric proximity sensor, energetic

GTE6-N1211



**Model Name** > **GTE6-N1211**  
**Part No.** > **1050713**



*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 <sup>1)</sup>
Sensing range:	≤ 250 mm
Type of light:	Visible red light
Light source:	PinPoint LED <sup>2)</sup>
Wave length:	650 nm
Adjustment:	Potentiometer, 5-turn
Light spot size (distance):	Ø 7 mm (90 mm)

<sup>1)</sup> Object with 90 % reflectance (referred to standard white DIN 5033) <sup>2)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

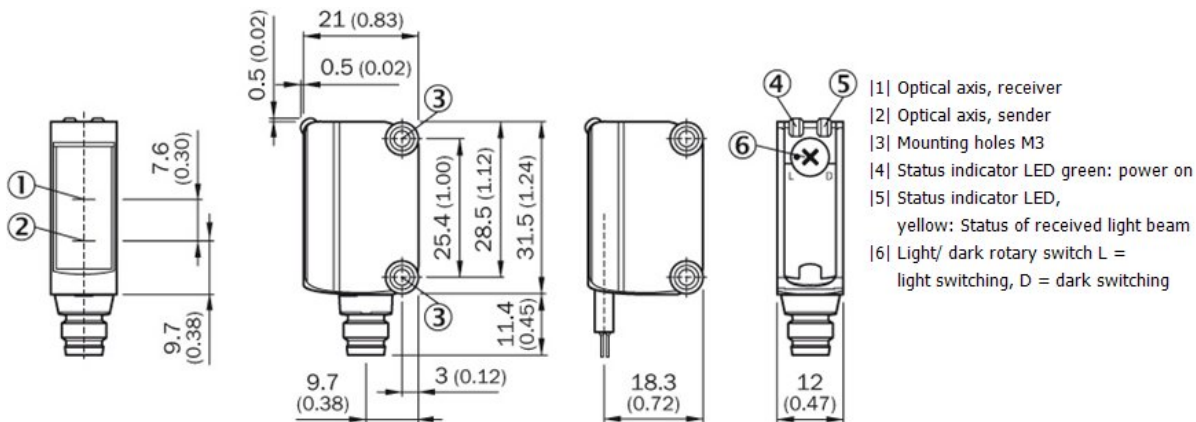
**Mechanics/electronics**

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

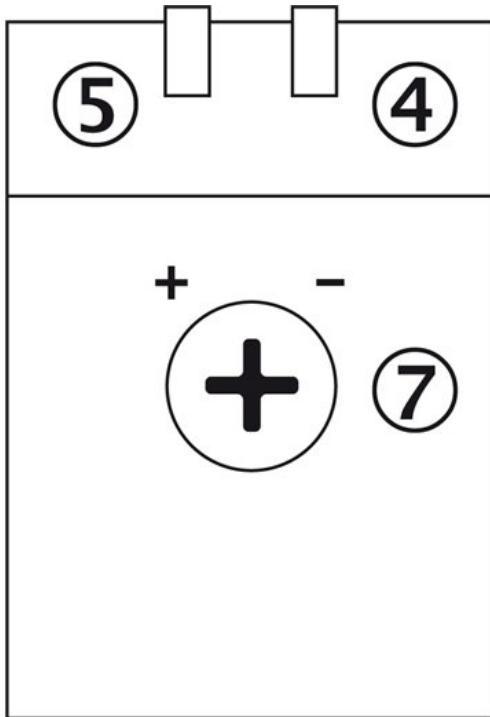
Switching mode selector:	Selectable via light/dark selector
Signal voltage NPN HIGH/LOW:	Approx. $V_S / \leq 3 \text{ V}$
Output current $I_{\text{max}}$ :	$\leq 100 \text{ mA}$ <sup>3)</sup>
Response time:	$< 1.25 \mu\text{s}$ <sup>4)</sup>
Switching frequency:	$500 \text{ Hz}$ <sup>5)</sup>
Connection type:	Cable, 3-wire, 2 m <sup>6)</sup>
Cable material:	PVC
Conductor cross-section:	$0.14 \text{ mm}^2$
Circuit protection:::	A, B, D <sup>7) 8) 9)</sup>
Weight:	60 g
Polarisation filter:	-
AS-Interface-Chip:	-
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 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  $0 \text{ }^\circ\text{C}$  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

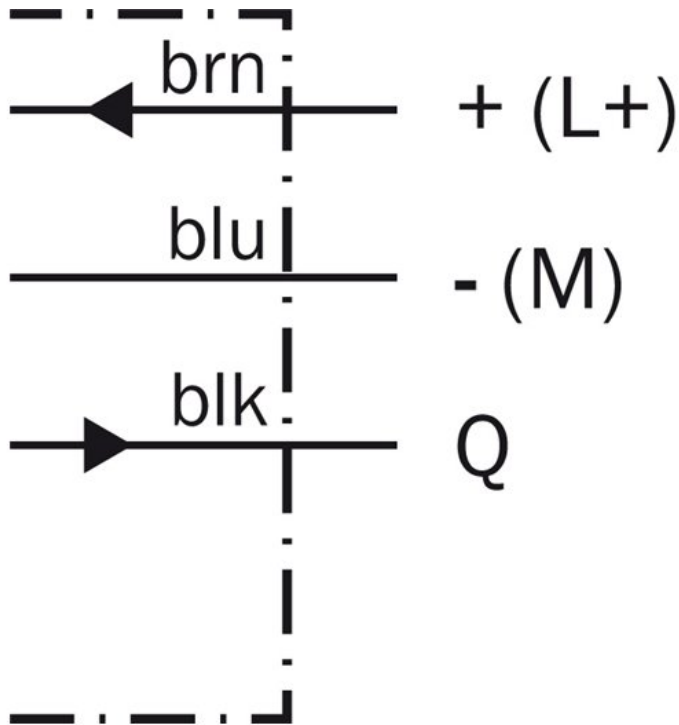


Adjustments possible

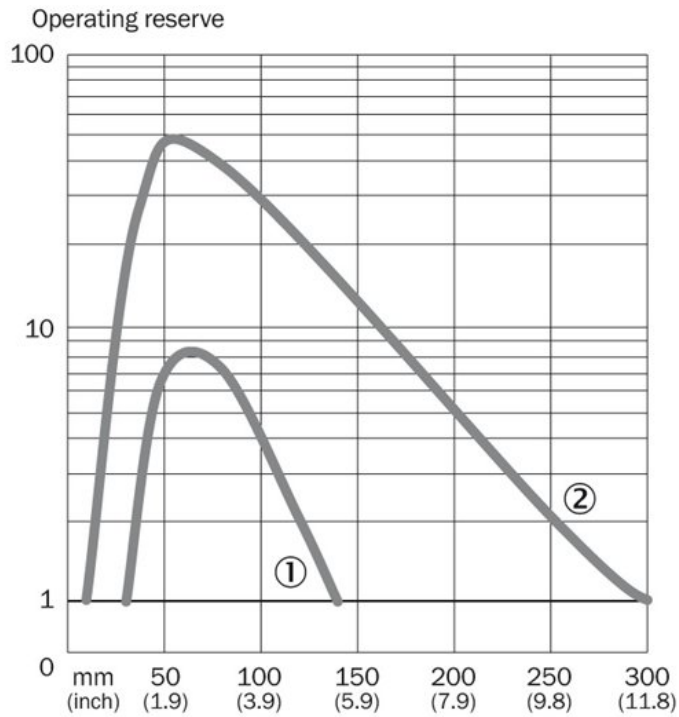


- |4| Status indicator LED green: power on
- |5| Status indicator LED,  
yellow: Status of received light beam
- |7| Sensitivity adjustment: poti

Connection diagram

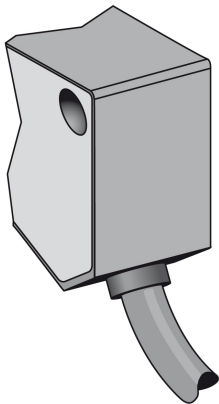


## Characteristic curve

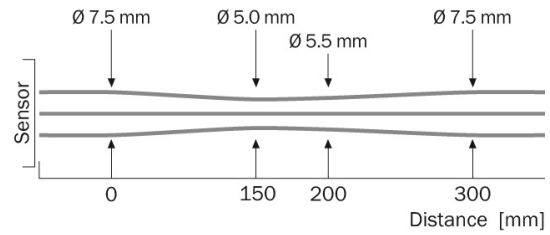


- |1| Sensing range on grey, 18 % remission
- |2| Sensing range on white, 90 % remission

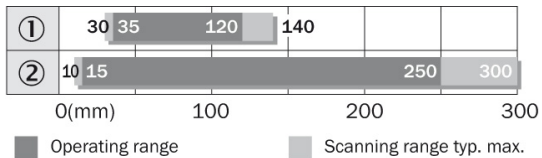
## Connection type



## Light spot size



## Sensing range diagram



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

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