



GTE6-P1231

G6

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
GTE6-P1231	1065760

Other models and accessories → www.sick.com/G6

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Sensing range max.	≤ 900 mm
Sensing range	≤ 760 mm
Light source	PinPoint LED
Type of light	Visible red light
Key LED figures	
Wave length	650 nm
Light spot size (distance)	Ø 5 mm (150 mm)
Adjustment	Mechanical spindle, 5 turns

Electrical data

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	± 10 % ²⁾
Power consumption	30 mA ³⁾
Protection class	III
Switching outputs	

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not exceed or fall below U_V tolerances.

³⁾ Without load.

⁴⁾ At $U_V > 24$ 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.

Switching output	PNP
Signal voltage PNP HIGH/LOW	$V_S - (\leq 3 \text{ V}) / \text{approx. } 0 \text{ V}$
Output current I_{max}	$\leq 100 \text{ mA}^4)$
Response time	$1.25 \text{ ms}^5)$
Switching frequency	$500 \text{ Hz}^6)$
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark selector
Circuit protection	A ⁷⁾ B ⁸⁾ D ⁹⁾
UL File No.	E348498

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Mechanical data

Housing	Rectangular
Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Connection	Cable, 3-wire, 2 m ¹⁾
Connection detail	
Conductor size	0.14 mm ²
Length of cable	2 m
Material	
Housing	Plastic, ABS/PC
Front screen	Plastic, PMMA
Cable	PVC
Weight	60 g

¹⁾ Do not bend below 0 °C.

Ambient data

Enclosure rating	IP67
Ambient operating temperature	-25 °C ... +55 °C ¹⁾
Ambient storage temperature	-40 °C ... +70 °C

¹⁾ Temperature stability following adjustment +/-10 °C.

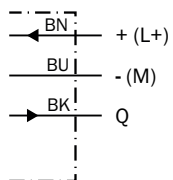
Classifications

ECl@ss 5.0	27270903
ECl@ss 5.1.4	27270903
ECl@ss 6.0	27270903

ECl@ss 6.2	27270903
ECl@ss 7.0	27270903
ECl@ss 8.0	27270903
ECl@ss 8.1	27270903
ECl@ss 9.0	27270903
ECl@ss 10.0	27270904
ECl@ss 11.0	27270904
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719
UNSPSC 16.0901	39121528

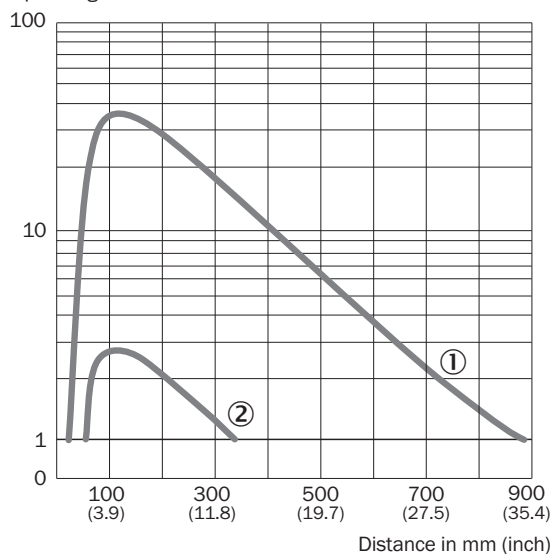
Connection diagram

Cd-043



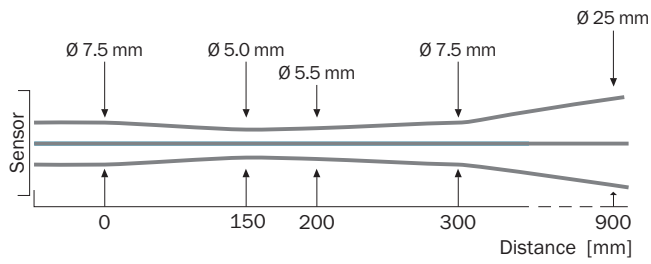
Characteristic curve

Operating reserve

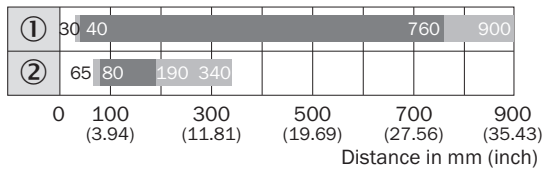


- ① Sensing range on white, 90% remission
- ② Sensing range on black, 6.25 % remission

Light spot size



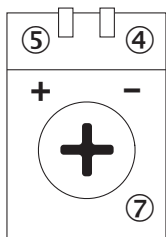
Sensing range diagram



- Sensing range
- Sensing range, typ. max.
- ① Sensing range on white, 90% remission
- ② Sensing range on black, 6.25 % remission

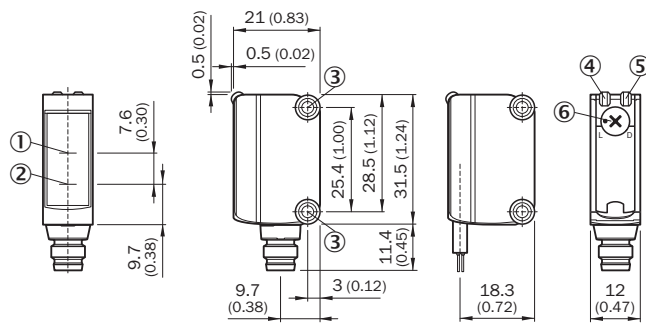
Adjustments

Adjustment possibility



- ④ LED indicator green: Supply voltage active
- ⑤ LED indicator yellow: Status of received light beam
- ⑦ Sensitivity control: potentiometer


Dimensional drawing (Dimensions in mm (inch))



- ① Optical axis, receiver
- ② Optical axis, sender
- ③ Mounting holes M3
- ④ LED indicator green: Supply voltage active
- ⑤ LED indicator yellow: Status of received light beam
- ⑥ Light/ dark rotary switch: L = light switching, D = dark switching

Recommended accessories

Other models and accessories → www.sick.com/G6

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: male connector, M8, 3-pin, straight Head B: - Cable: unshielded	STE-0803-G	6037322

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

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