

GTE6-P4231 G6

MINIATURE PHOTOELECTRIC SENSORS

SICKSensor Intelligence.



Ordering information

Туре	Part no.
GTE6-P4231	1065730

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

Illustration may differ



Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Sensing range max.	≤ 900 mm
Sensing range	≤ 760 mm
Polarisation filters	No
Emitted beam	
Light source	PinPoint LED
Type of light	Visible red light
Light spot size (distance)	Ø 5 mm (150 mm)
Key LED figures	
Wave length	650 nm
Adjustment	Mechanical spindle, 5 turns

Safety-related parameters

MTTF _D	1,749 years
DC _{avg}	0%
T _M (mission time)	20 years

Electrical data

Supply voltage \mathbf{U}_{B}	10 V DC 30 V DC ¹⁾
Ripple	± 10 % ²⁾
Current consumption	30 mA ³⁾
Protection class	III
Digital output	
Туре	PNP
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark selector
Signal voltage PNP HIGH/LOW	V_S - ($\leq 3 \text{ V}$) / approx. 0 V
Output current I _{max.}	≤ 100 mA ⁴⁾
Response time	1.25 ms ⁵⁾
Switching frequency	500 Hz ⁶⁾
Circuit protection	A ⁷⁾ B ⁸⁾ D ⁹⁾

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

Mechanical data

Housing	Rectangular
Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Connection	Male connector M8, 4-pin
Material	
Housing	Plastic, ABS/PC
Front screen	Plastic, PMMA
Weight	20 g

Ambient data

Enclosure rating	IP67
Ambient operating temperature	-25 °C +55 °C ¹⁾
Ambient temperature, storage	-40 °C +70 °C
UL File No.	E348498

 $^{^{1)}}$ Temperature stability following adjustment +/-10 $^{\circ}\text{C}.$

Classifications

ECLASS 5.0	27270903
ECLASS 5.1.4	27270903

 $^{^{2)}\,\}mathrm{May}$ not exceed or fall below U_{V} tolerances.

³⁾ Without load.

 $^{^{4)}}$ At Uv > 24 V, IA 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.

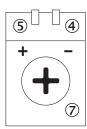
⁸⁾ B = inputs and output reverse-polarity protected.

 $^{^{9)}}$ D = outputs overcurrent and short-circuit protected.

ECLASS 6.0	27270903
ECLASS 6.2	27270903
ECLASS 7.0	27270903
ECLASS 8.0	27270903
ECLASS 8.1	27270903
ECLASS 9.0	27270903
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Adjustments

Adjustment possibility



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

Connection type



Connection diagram

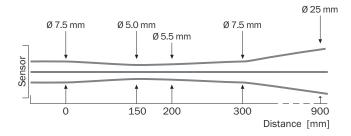
Cd-066

Characteristic curve

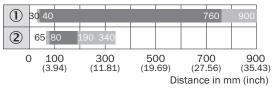
100 100 100 100 300 (3.9) (11.8) (19.7) (27.5) (35.4) Distance in mm (inch)

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

Light spot size

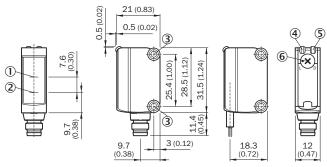


Sensing range diagram



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

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	Туре	Part no.
Universal bar	clamp systems		
	Clamp bar to fix G6 sensors on rods of 12 mm, clamp-on design up to 4 mm wall thickness, aluminum (clamp bar), stainless steel (bracket), clamp bar mounting and clamp function, mounting bracket, mounting hardware	BEF-KHS-IS12G6	2086865
Mounting bra	ckets and plates		
	Stainless steel (1.4301)	BEF-WN-G6	2062909
Plug connectors and cables			
•	 Connection type head A: Female connector, M8, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YF8U14- 050VA3XLEAX	2095889

Brief description	Туре	Part no.
 Connection type head A: Male connector, M8, 4-pin, straight Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: 0.14 mm² 0.5 mm² 	STE-0804-G	6037323

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For us, that is "Sensor Intelligence."

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