GTE6-P3231

G6

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

GTE6-P3231 | G6
MINIATURE PHOTOELECTRIC SENSORS

Illustration may differ

Ordering information

Type	Part no.
GTE6-P3231	1068919

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 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.

Switching output	PNP
Signal voltage PNP HIGH/LOW	Approx. V_S / ≤ 3 V
Output current $I_{max.}$	≤ 100 mA [4]
Response time	1.25 ms [5]
Switching frequency	500 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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[3] Without load.

[4] At Uv > 24 V, IA max. = 50 mA.

[5] Signal transit time with resistive load.

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[9] D = outputs overcurrent and short-circuit protected.

Mechanical data

Housing	Rectangular
Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Connection	Connector M8, 3-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 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

ECI@ss 11.0	27270904
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719
UNSPSC 16.0901	39121528

Connection diagram

Cd-045

```
        BN  1
    ─────────── + (L+)
        BU  3
    ─────────── - (M)
        BK  4
    ─────────── Q
```
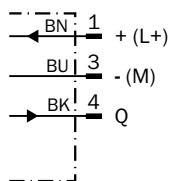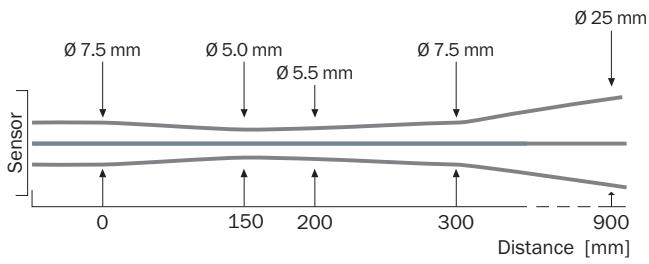
Characteristic curve

Operating reserve

Distance in mm (inch)
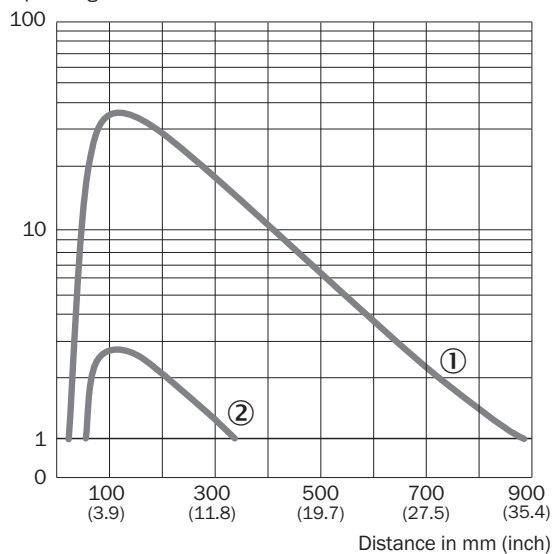
① Sensing range on white, 90% remission
② Sensing range on black, 6.25 % remission

Light spot size

Ø 7.5 mm   Ø 5.0 mm   Ø 7.5 mm   Ø 25 mm

Ø 5.5 mm

Sensor

0   150   200   300   900

Distance [mm]

Sensing range diagram

| ① | 30 40 | | | | | | 760 | 900 | | |
| ② | 65 | 80 | 190 | 340 | | | | | | |

0   100   300   500   700   900
         (3.94)   (11.81)   (19.69)   (27.56)   (35.43)

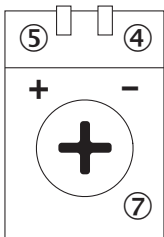Distance in mm (inch)
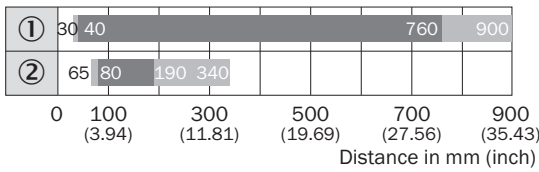
■ Sensing range   ■ Sensing range, typ. max.

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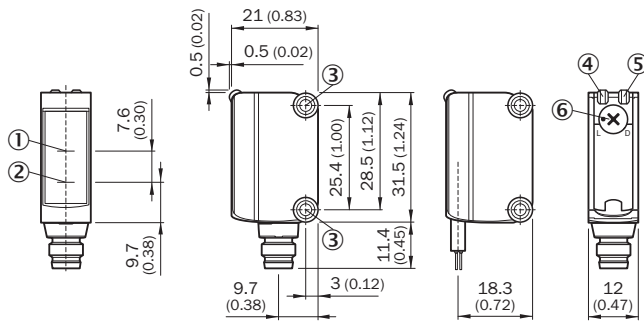② Sensing range on black, 6.25 % remission

Adjustments

Adjustment possibility

⑤   □ □   ④

+   −

+

⑦

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: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U13-050VA1XLEAX	2095884
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."

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