



GTE6-P7211

G6

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|------------|----------|
| GTE6-P7211 | 1053589 |

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

Detailed technical data

Features

| | |
|------------------------------------|--------------------------------|
| Device type | Photoelectric sensors |
| Functional principle | Photoelectric proximity sensor |
| Functional principle detail | Energetic |
| Sensing range max. | ≤ 300 mm ¹⁾ |
| Sensing range | ≤ 250 mm |
| Polarisation filters | No |
| Emitted beam | |
| Light source | PinPoint LED ²⁾ |
| Type of light | Visible red light |
| Light spot size (distance) | Ø 7 mm (90 mm) |
| Key LED figures | |
| Wave length | 650 nm |
| Adjustment | Mechanical spindle, 5 turns |

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

²⁾ Average service life: 100,000 h at T_U = +25 °C.

Electrical data

| | |
|--|--|
| Supply voltage U_B | 10 V DC ... 30 V DC ¹⁾ |
| Ripple | $\pm 10\%$ ²⁾ |
| Power consumption | 30 mA ³⁾ |
| Protection class | III |
| Digital output | |
| Type | 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 | $< 1,250\text{ ms}$ 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⁾ |

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 $U_V > 24\text{ V}$, $I_A \text{ max.} = 50\text{ mA}$.

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.

Mechanical data

| | |
|-------------------------------|--|
| Housing | Rectangular |
| Dimensions (W x H x D) | 12 mm x 31.5 mm x 21 mm |
| Connection | Cable with M12 male connector, 4-pin ¹⁾ |
| Connection detail | |
| Length of cable | 300 mm |
| 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 temperature, storage | -40 °C ... +70 °C |

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

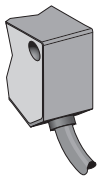
| | |
|--------------------|------------------------------|
| UL File No. | NRKH.E348498 & NRKH7.E348498 |
|--------------------|------------------------------|

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

Classifications

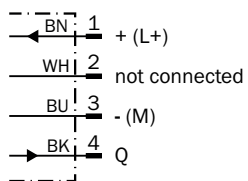
| | |
|-----------------------|----------|
| ECl@ss 5.0 | 27270903 |
| ECl@ss 5.1.4 | 27270903 |
| ECl@ss 6.0 | 27270903 |
| ECl@ss 6.2 | 27270903 |
| ECl@ss 7.0 | 27270903 |
| ECl@ss 8.0 | 27270903 |
| ECl@ss 8.1 | 27270903 |
| ECl@ss 9.0 | 27270903 |
| ECl@ss 10.0 | 27270904 |
| ECl@ss 11.0 | 27270904 |
| ETIM 5.0 | EC001821 |
| ETIM 6.0 | EC001821 |
| ETIM 7.0 | EC002719 |
| ETIM 8.0 | EC002719 |
| UNSPSC 16.0901 | 39121528 |

Connection type



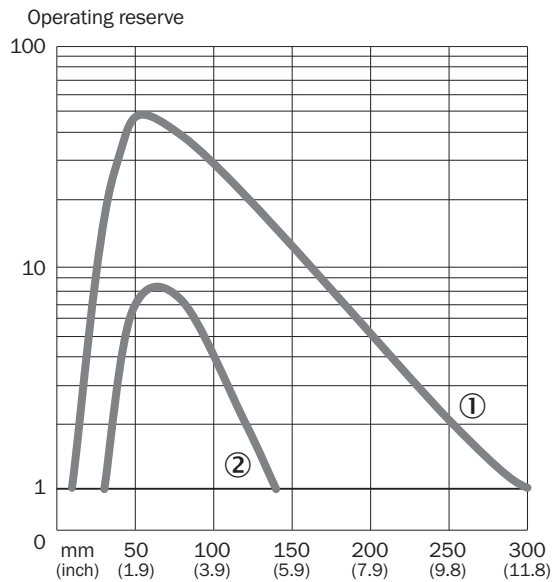
Connection diagram

Cd-066



Characteristic curve

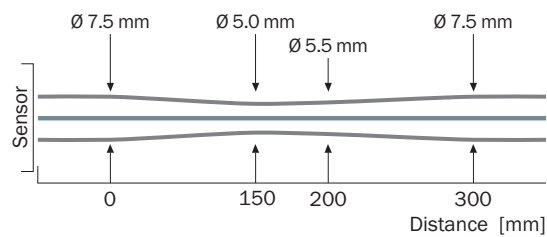
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- ① Sensing range on white, 90% remission
- ② Sensing range on gray, 18 % remission

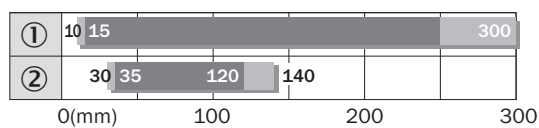
Light spot size

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Sensing range diagram

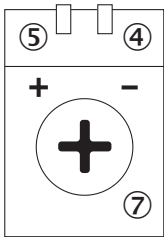
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- Sensing range
- Sensing range max.
- ① Object with 90% remission (based on standard white DIN 5033)
- ② Sensing range on gray, 18 % remission

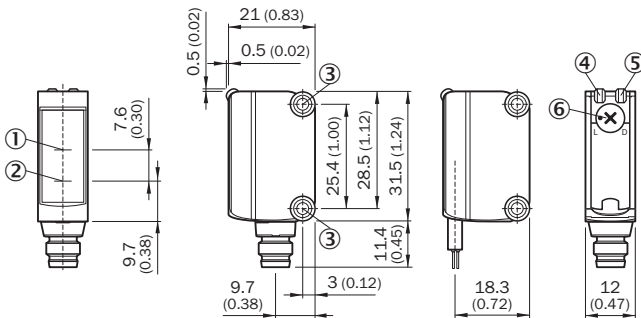
Adjustments

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. |
|---|---|--------------------|----------|
| Mounting brackets and plates | | | |
|  | Stainless steel (1.4301) | BEF-WN-G6 | 2062909 |
| Plug connectors and cables | | | |
|  | Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YF2A14-050VB3XLEAX | 2096235 |
|  | Head A: male connector, M12, 4-pin, straight Head B: - Cable: unshielded | STE-1204-G | 6009932 |

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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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