



GTE10-P1212

G10

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | part no. |
|-------------|----------|
| GTE10-P1212 | 1065866 |

Included in delivery: BEF-G10DC01 (1)

Other models and accessories → www.sick.com/G10

Detailed technical data

Features

| | |
|--|----------------------------------|
| Functional principle | Photoelectric proximity sensor |
| Functional principle detail | Energetic |
| Dimensions (W x H x D) | 20 mm x 50 mm x 39 mm |
| Housing design (light emission) | Rectangular |
| Sensing range max. | 20 mm ... 1,300 mm ¹⁾ |
| Sensing range | 40 mm ... 950 mm ¹⁾ |
| Type of light | Visible red light |
| Light source | PinPoint LED ²⁾ |
| Light spot size (distance) | Ø 28 mm (1,400 mm) |
| Wave length | 625 nm |
| Adjustment | Potentiometer, 270° |

¹⁾ Object with 90% remission (based on standard white, DIN 5033).

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

Mechanics/electronics

| | |
|-------------------------------------|-----------------------------------|
| Supply voltage U_B | 10 V DC ... 30 V DC ¹⁾ |
|-------------------------------------|-----------------------------------|

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

²⁾ May not fall below or exceed U_V tolerances.

³⁾ Signal transit time with resistive load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ Do not bend below 0 °C.

⁶⁾ A = V_S connections reverse-polarity protected.

⁷⁾ B = inputs and output reverse-polarity protected.

⁸⁾ C = interference suppression.

⁹⁾ D = outputs overcurrent and short-circuit protected.

¹⁰⁾ Complies with the UL325 standard when used with sturdy protection hood (e.g. BEF-G10WSG, 2071960).

| | |
|--|--|
| Ripple | < 5 V _{pp} ²⁾ |
| Current consumption | 20 mA |
| Switching output | PNP |
| Switching mode | Light/dark switching |
| Switching mode selector | Selectable via light/dark selector |
| Output current I_{max.} | ≤ 100 mA |
| Response time | ≤ 500 μs ³⁾ |
| Switching frequency | 1,000 Hz ⁴⁾ |
| Connection type | Cable, 3-wire, 2 m ⁵⁾ |
| Cable material | Plastic, PVC |
| Conductor cross section | 0.14 mm ² |
| Circuit protection | A ⁶⁾ B ⁷⁾ C ⁸⁾ D ⁹⁾ |
| Protection class | III |
| Weight | 90 g |
| Housing material | Plastic, ABS/PMMA |
| Enclosure rating | IP67 |
| Items supplied | Mounting bracket BEF-G10DC01 |
| Electromagnetic compatibility (EMC) | EN 60947-5-2 |
| Ambient operating temperature | -30 °C ... +60 °C |
| Ambient temperature, storage | -40 °C ... +70 °C |
| UL File No. | NRKH.E348498 & NRKH7.E348498 |
| More standards | UL325 ¹⁰⁾ |

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Classifications

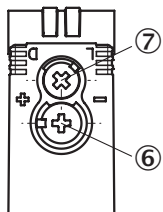
| | |
|---------------------|----------|
| ECLASS 5.0 | 27270903 |
| ECLASS 5.1.4 | 27270903 |
| ECLASS 6.0 | 27270903 |
| ECLASS 6.2 | 27270903 |
| ECLASS 7.0 | 27270903 |
| ECLASS 8.0 | 27270903 |
| ECLASS 8.1 | 27270903 |

| | |
|-----------------------|----------|
| 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 |

Certificates

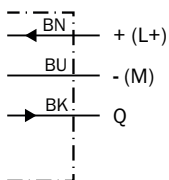
| | |
|--|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China-RoHS | ✓ |
| cULus certificate | ✓ |
| Photobiological safety (DIN EN 62471) certificate | ✓ |

Adjustments

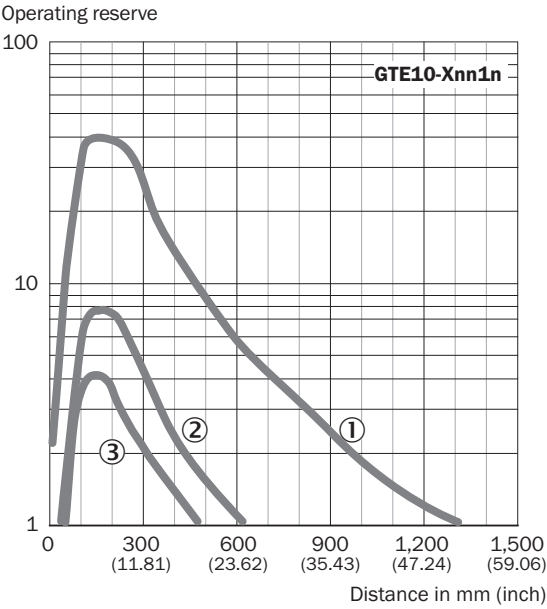


- ⑥ Adjustment of sensing range
- ⑦ Light/dark selector

Connection diagram Cd-044

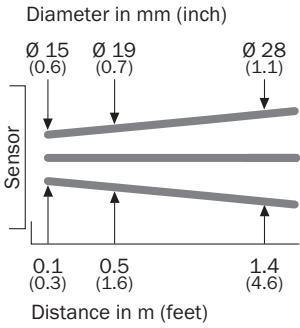


Operating reserve

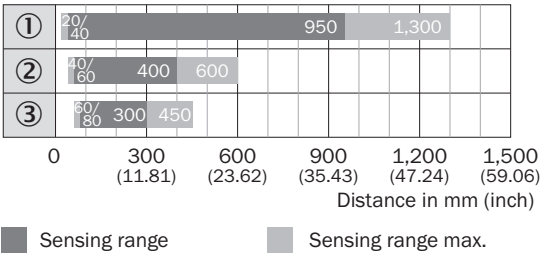


- ① Sensing range on white, 90% remission factor
- ② Sensing range on gray, 18% remission factor
- ③ Sensing range on black, 6% remission factor

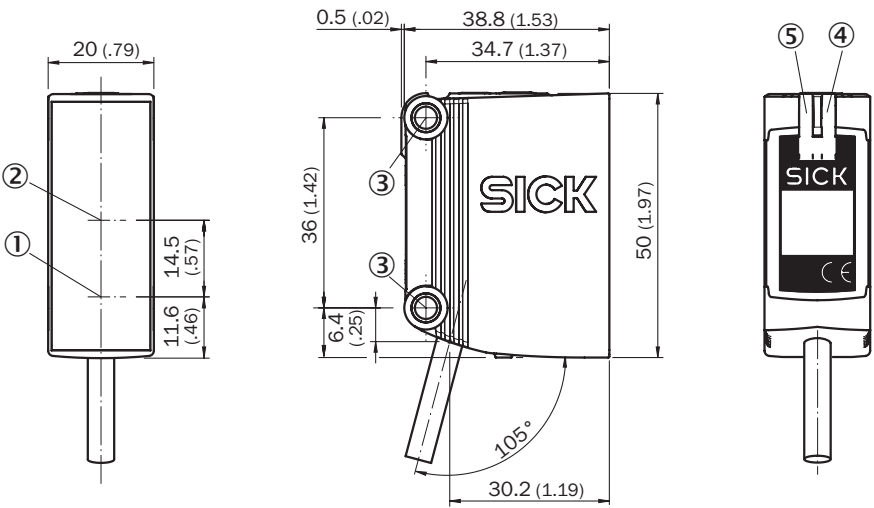
Light spot size



scanning range





Dimensional drawing CableGTE10, GL10, GL10G, DC, connector



Recommended accessories

Other models and accessories → www.sick.com/G10

| | Brief description | Type | part no. |
|---|---|---------------|----------|
| connectors and cables | | | |
|  | <ul style="list-style-type: none">• Connection type head A: Male connector, M8, 3-pin, straight, A-coded• Description: Unshielded• Connection systems: Screw-type terminals• Permitted cross-section: 0.14 mm² ... 0.5 mm² | STE-0803-G | 6037322 |
| Mounting systems | | | |
|  | <ul style="list-style-type: none">• Description: Q-Lock, bar clamp system for G10 and reflector P250• Material: Zinc diecast, steel• Details: Die-cast zinc, steel, zinc coated• Suitable for: G10 and reflector P250 | BEF-KHSQ12R01 | 2071260 |

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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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