

GTE10-R3822 G10

PHOTOELECTRIC SENSORS



Ordering information

| Туре | part no. |
|-------------|----------|
| GTE10-R3822 | 1065875 |

Included in delivery: BEF-G10UC01 (1)

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

Illustration may differ



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 51.5 mm |
| Housing design (light emission) | Rectangular |
| Sensing range max. | 20 mm 2,000 mm ¹⁾ |
| Sensing range | 40 mm 1,400 mm ¹⁾ |
| Type of light | Infrared light |
| Light source | LED ²⁾ |
| Light spot size (distance) | Ø 57 mm (1,500 mm) |
| Wave length | 850 nm |
| Adjustment | Potentiometer, 270° |

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

 $^{^{2)}}$ Average service life: 100,000 h at $\rm T_U$ = +25 °C.

Mechanics/electronics

| Supply voltage U _e | 24 V AC/DC 240 V AC/DC ¹⁾ |
|---------------------------------------|--|
| Ripple | < 10 % |
| Power consumption | ≤ 2.5 VA |
| Switching output | Relay, SPDT, electrically isolated ²⁾ |
| Switching mode | Light/dark switching ²⁾ |
| Switching load max. (current/voltage) | 0.11 A (250 V DC) 3 A (30 V DC) 3 A (250 V AC) |
| Response time | ≤ 10 ms |
| Switching frequency | 20 Hz ³⁾ |
| Connection type | Cable, 5-wire, 2 m ⁴⁾ |
| Cable material | Plastic, PVC |
| Conductor cross section | 0.25 mm ² |
| Circuit protection | C ⁵⁾ |
| Protection class | II ⁶⁾ |
| Weight | 115 g |
| Interference emission | EN 61000-6-3 (2011-09) ⁷⁾ |
| Housing material | Plastic, ABS/PMMA |
| Enclosure rating | IP67 |
| Relay switching cycles min. | 100.000 cycles (3 A) |
| Items supplied | Mounting bracket BEF-G10UC01 |
| Usage category | DC-13 (according to EN 60947-1) AC-15 (according to EN 60947-1) |
| Electromagnetic compatibility (EMC) | EN 60947-5-2 EN 61000-6-3 (2011-09) |
| Ambient operating temperature | -30 °C +60 °C ⁸⁾ |
| Ambient temperature, storage | -40 °C +70 °C |
| UL File No. | NRKH.E348498 & NRKH7.E348498 |
| More standards | UL325 ⁹⁾ |

^{1) +- 10 %}

Certificates

| EU declaration of conformity | ✓ |
|------------------------------------|---|
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |

 $^{^{2)}\,\}mbox{Provide}$ suitable spark suppression for inductive or capacitive loads.

 $^{^{}m 3)}$ With light/dark ratio 1:1.

 $^{^{4)}}$ Do not bend below 0 $^{\circ}\text{C}.$

 $^{^{5)}}$ C = interference suppression.

 $^{^{6)}}$ Reference voltage: 250 V AC.

 $^{^{7)}}$ In the case of a DC supply (ref. to EN 61000-6-3) the length of cable between the supply source and the sensor must be < 30 m.

 $^{^{8)}}$ UL: 0 °C ... +50 °C.

 $^{^{9)}}$ Complies with the UL325 standard when used with sturdy protection hood (e.g. BEF-G10WSG, 2071960).

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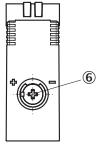
PHOTOELECTRIC SENSORS

| China RoHS | ✓ |
|---|---|
| CCC certificate | ✓ |
| cULus certificate | ✓ |
| Photobiological safety (DIN EN 62471) certificate | ✓ |

Classifications

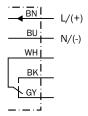
| ECLASS 5.0 | 27270903 |
|----------------|----------|
| ECLASS 5.1.4 | 27270903 |
| ECLASS 6.0 | 27270903 |
| ECLASS 6.2 | 27270903 |
| ECLASS 7.0 | 27270903 |
| ECLASS 8.0 | 27270903 |
| ECLASS 8.1 | 27270903 |
| ECLASS 9.0 | 27270903 |
| ECLASS 10.0 | 27270904 |
| ECLASS 11.0 | 27270904 |
| ECLASS 12.0 | 27270903 |
| ETIM 5.0 | EC001821 |
| ETIM 6.0 | EC001821 |
| ETIM 7.0 | EC002719 |
| ETIM 8.0 | EC002719 |
| UNSPSC 16.0901 | 39121528 |
| | |

Adjustments GTB10, GTE10, AC/DC



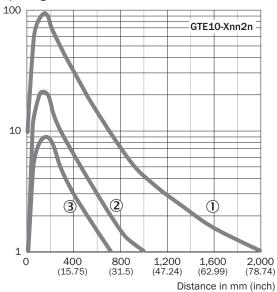
6 Adjustment of sensing range

Connection diagram Cd-163



Operating reserve

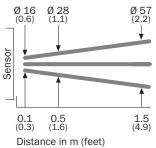
Operating reserve



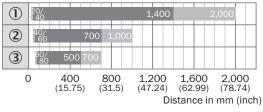
- $\ensuremath{\textcircled{\scriptsize 1}}$ Sensing range on white, 90% remission factor
- ② Sensing range on gray, 18% remission factor
- 3 Sensing range on black, 6% remission factor

Light spot size

Diameter in mm (inch)

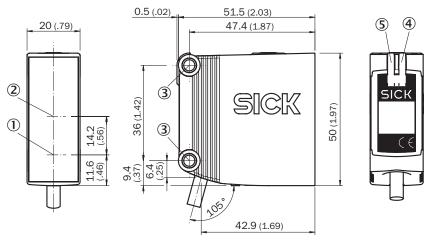


scanning range



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

Dimensional drawing GTE10, GL10, GL10G, AC/DC, cable



Dimensions in mm (inch)

- ① Center of optical axis, sender
- ② Center of optical axis, receiver
- 3 Mounting hole, Ø 4.2 mm
- 4 LED indicator yellow: Status of received light beam
- ⑤ LED indicator green: power on

Recommended accessories

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

| | Brief description | Туре | part no. | | | |
|-----------------------|---|---------------|----------|--|--|--|
| Mounting syst | Mounting systems | | | | | |
| | 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 | | | |
| | Description: Mounting bracket with articulated arm Material: Steel Details: Steel, zinc coated Items supplied: Mounting hardware included Suitable for: W16, W26, W11, W12, W23, W27, Dx50, W280, G10 | BEF-WN-MULTI2 | 2093945 | | | |
| connectors and cables | | | | | | |
| | Connection type head A: Male connector, M12, 5-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² Note: For field bus technology | STE-1205-G | 6022083 | | | |

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