



GL10-R3812

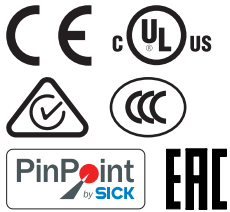
G10

SMALL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|------------|----------|
| GL10-R3812 | 1065898 |

Included in delivery: P250 (1), BEF-G10UC01 (1)

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

Detailed technical data

Features

| | |
|--|--|
| Sensor/ detection principle | Photoelectric retro-reflective sensor, Dual lens |
| Dimensions (W x H x D) | 20 mm x 50 mm x 51.5 mm |
| Housing design (light emission) | Rectangular |
| Sensing range max. | 0.08 m ... 15 m ¹⁾ 0.08 m ... 12 m ²⁾ |
| Sensing range | 0.15 m ... 12 m ¹⁾ 0.15 m ... 10 m ²⁾ |
| Type of light | Visible red light |
| Light source | PinPoint LED ³⁾ |
| Light spot size (distance) | Ø 58 mm (5 m) |
| Wave length | 625 nm |
| Adjustment | Potentiometer, 270° |

¹⁾ Reflector PL80A.

²⁾ Reflector P250.

³⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

| | |
|--|--|
| Supply voltage | 24 V AC/DC ... 240 V AC/DC ¹⁾ |
| Ripple | < 5 V _{pp} ²⁾ |
| Power consumption | ≤ 2.5 VA |
| Switching output | Relay, SPDT, electrically isolated ³⁾ |
| 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 ⁴⁾ |
| Connection type | Cable, 5-wire, 2 m ⁵⁾ |
| Cable material | PVC |
| Conductor cross-section | 0.25 mm ² |
| Circuit protection | C ⁶⁾ |
| Protection class | II ⁷⁾ |
| Weight | 115 g |
| Polarisation filter | ✓ |
| Interference emission | EN 61000-6-3 (2011-09) ⁸⁾ |
| Housing material | Plastic, ABS/PMMA |
| Enclosure rating | IP67 |
| Relay switching cycles min. | 100.000 cycles (3 A) |
| Items supplied | Mounting bracket BEF-G10UC01, Reflector P250 |
| Usage category | AC-15, DC-13, 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 ⁹⁾ |
| Ambient temperature, storage | -40 °C ... +70 °C |
| UL File No. | NRKH.E348498 & NRKH7.E348498 |
| More standards | UL325 ¹⁰⁾ |

¹⁾ +- 10 %.

²⁾ May not exceed or fall below U_v tolerances.

³⁾ Provide suitable spark suppression for inductive or capacitive loads.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ Do not bend below 0 °C.

⁶⁾ C = interference suppression.

⁷⁾ Reference voltage: 250 V AC.

⁸⁾ 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.

⁹⁾ UL: 0 °C ... +50 °C.

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

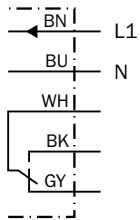
Classifications

| | |
|---------------------|----------|
| ECl@ss 5.0 | 27270902 |
| ECl@ss 5.1.4 | 27270902 |
| ECl@ss 6.0 | 27270902 |
| ECl@ss 6.2 | 27270902 |

| | |
|-----------------------|----------|
| ECl@ss 7.0 | 27270902 |
| ECl@ss 8.0 | 27270902 |
| ECl@ss 8.1 | 27270902 |
| ECl@ss 9.0 | 27270902 |
| ECl@ss 10.0 | 27270902 |
| ECl@ss 11.0 | 27270902 |
| ETIM 5.0 | EC002717 |
| ETIM 6.0 | EC002717 |
| ETIM 7.0 | EC002717 |
| ETIM 8.0 | EC002717 |
| UNSPSC 16.0901 | 39121528 |

Connection diagram

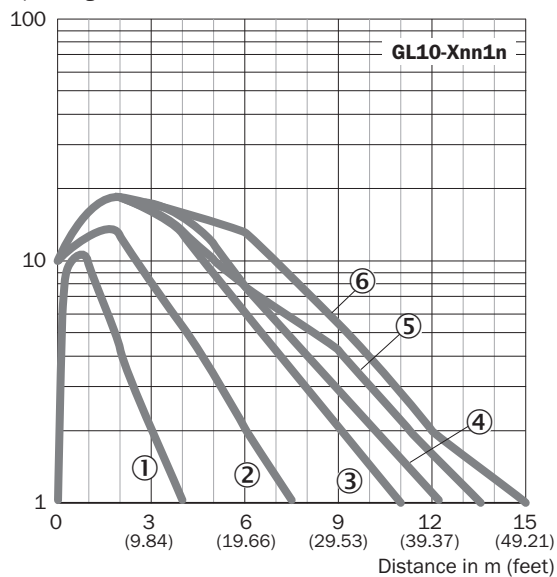
Cd-163



Characteristic curve

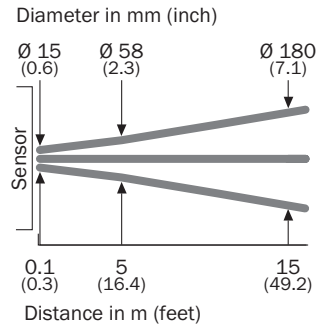
GL10

Operating reserve



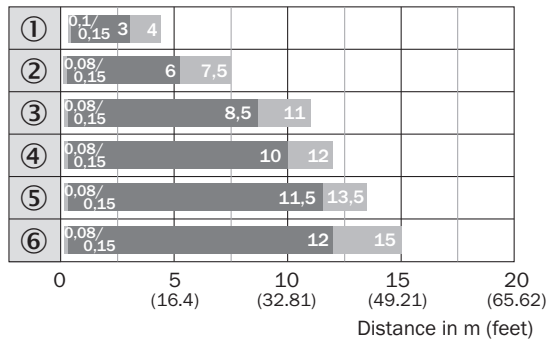
Light spot size

Light spot size



Sensing range diagram

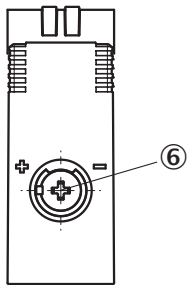
GL10



■ Sensing range ■ Sensing range max.

- ① Reflective tape REF-IRF-56
- ② Reflector PL20A
- ③ Reflector PL30A
- ④ Reflector P250
- ⑤ Reflector PL40A
- ⑥ Reflector PL80A

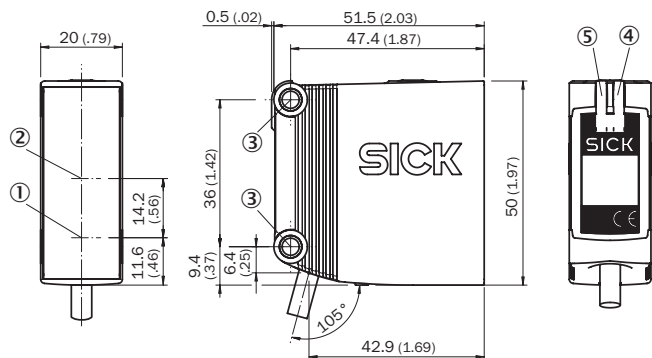
Adjustments



ⓐ Adjustment of sensing range

Dimensional drawing (Dimensions in mm (inch))





GTE10, GL10, GL10G, AC/DC, cable



- ① Center of optical axis, sender
- ② Center of optical axis, receiver
- ③ Mounting hole, \varnothing 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 | Type | Part no. |
|---|---|---------------|----------|
| Universal bar clamp systems | | | |
|  | Q-Lock, bar clamp system for G10 and reflector P250, Die-cast zinc, steel, zinc coated | BEF-KHSQ12R01 | 2071260 |
| Mounting brackets and plates | | | |
|  | Universal mounting bracket for reflectors, steel, zinc coated | BEF-WN-REFX | 2064574 |
| Plug connectors and cables | | | |
|  | Head A: male connector, M12, 5-pin, straight Cable: unshielded For field bus technology | STE-1205-G | 6022083 |
| Reflectors | | | |
|  | Rectangular, screw connection, 51 mm x 61 mm, PMMA/ABS, Screw-on, 2 hole mounting | P250 | 5304812 |

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Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

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