GTE10-R3812

G10

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	part no.
GTE10-R3812	1065873

Included in delivery: BEF-G10UC01 (1)

Other models and accessories ➜ www.sick.com/G10
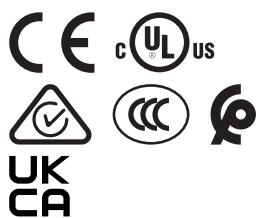
Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Dimensions (W x H x D)	20 mm x 50 mm x 51.5 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_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 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 mm²
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 60947-5-2EN 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 %.

[2] Provide suitable spark suppression for inductive or capacitive loads.

[3] With light/dark ratio 1:1.

[4] Do not bend below 0 °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).

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
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
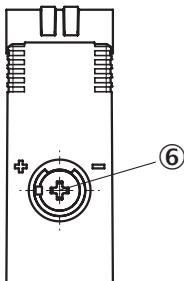
⑥ Adjustment of sensing range

Connection diagram Cd-163

Operating reserve

Operating reserve

GTE10-Xnn1n

Distance in mm (inch)

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)

Ø 15 (0.6)   Ø 19 (0.7)   Ø 28 (1.1)

Sensor

0.1 (0.3)   0.5 (1.6)   1.4 (4.6)

Distance in m (feet)

scanning range

①	20/40	950 1,300
②	40/60 400 600	
③	60/80 300 450	

Distance in mm (inch)

■ Sensing range   ■ Sensing range max.
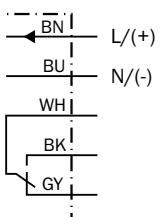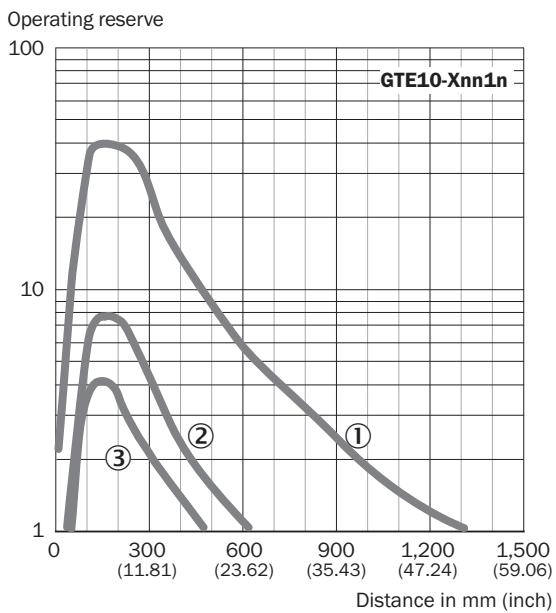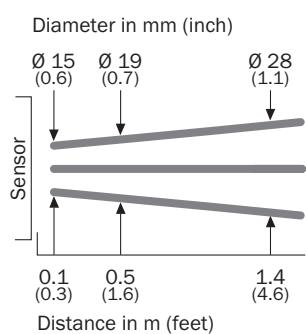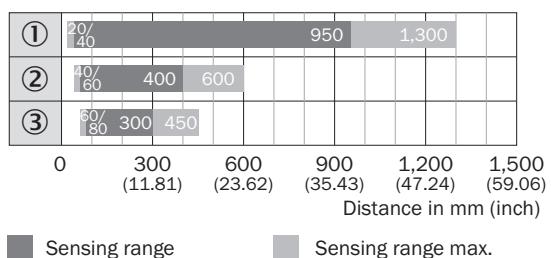
Dimensional drawing GTE10, GL10, GL10G, AC/DC, cable
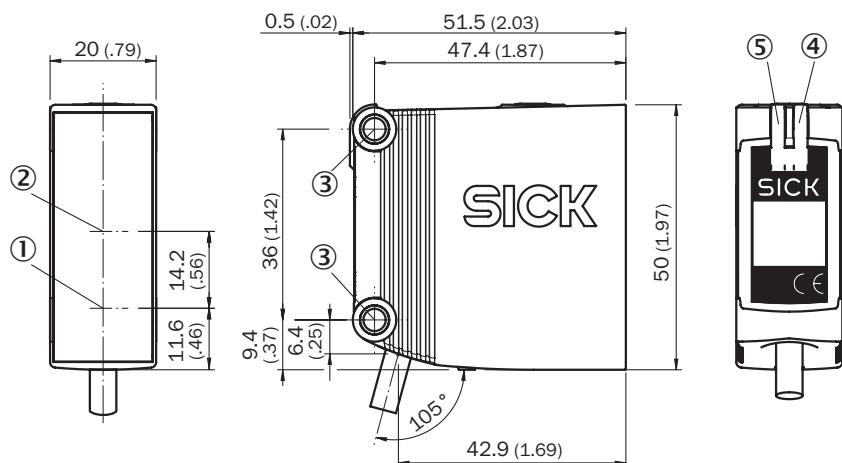
Dimensions in mm (inch)
① Center of optical axis, sender
② Center of optical axis, receiver
③ Mounting hole, Ø 4.2 mm
④ LED indicator yellow: Status of received light beam
⑤ LED indicator green: power on

Recommended accessories

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

Brief description	Type	part no.
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
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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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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