



GSE10-R3812

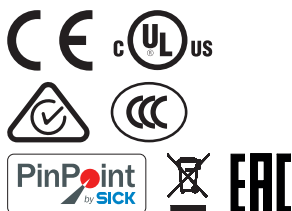
G10

SMALL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
GSE10-R3812	1065912

Included in delivery: BEF-G10UC01 (2)

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

Detailed technical data

Features

Sensor/ detection principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	20 mm x 50 mm x 51.5 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 m ... 40 m
Sensing range	0 m ... 35 m
Type of light	Visible red light
Light source	PinPoint LED ¹⁾
Light spot size (distance)	Ø 180 mm (15 m)
Wave length	625 nm
Adjustment	Potentiometer, 270 °

¹⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

Supply voltage	24 V AC/DC ... 240 V AC/DC ¹⁾
Ripple	± 5 V _{pp} ²⁾
Power consumption, sender	≤ 2 VA

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).

Power consumption, receiver	≤ 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	230 g
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 (2x)
Usage category	AC-15, DC-13, according to EN 60947-1
EMC	EN 60947-5-2
Ambient operating temperature	-30 °C ... +60 °C ⁹⁾
Ambient storage temperature	-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_y 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).

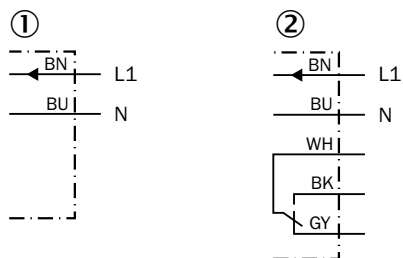
Classifications

ECl@ss 5.0	27270901
ECl@ss 5.1.4	27270901
ECl@ss 6.0	27270901
ECl@ss 6.2	27270901
ECl@ss 7.0	27270901
ECl@ss 8.0	27270901
ECl@ss 8.1	27270901
ECl@ss 9.0	27270901

ECl@ss 10.0	27270901
ECl@ss 11.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
UNSPSC 16.0901	39121528

Connection diagram

Cd-170

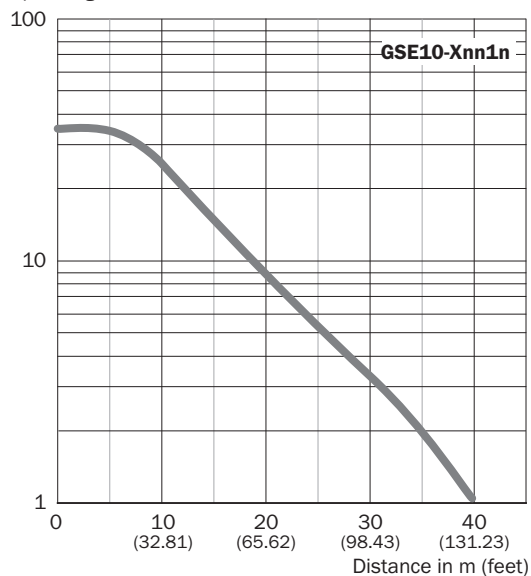


- ① Sender
- ② Receiver

Characteristic curve

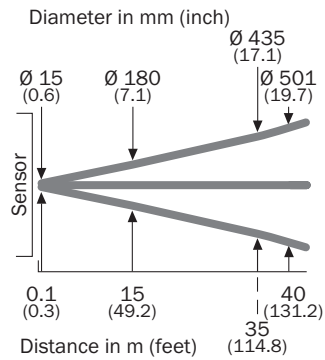
GSE10, red light

Operating reserve



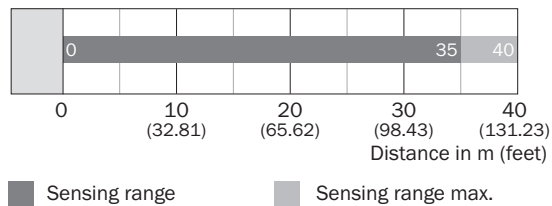
Light spot size

GSE10, red light



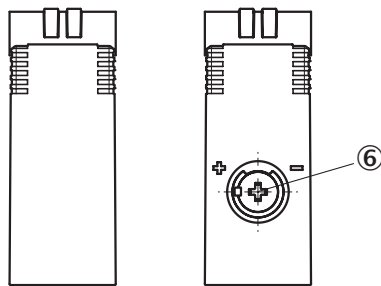
Sensing range diagram

GSE10, red light



Adjustments possible

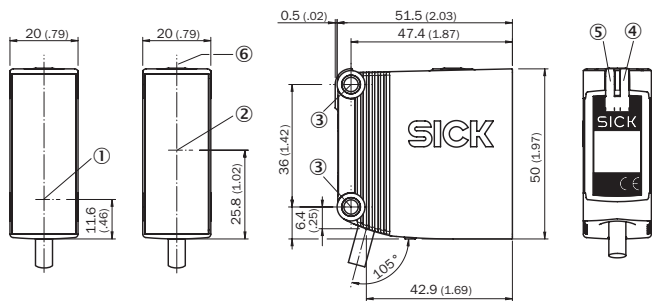
GSE10, AC/DC



- ⑥ Adjustment of sensing range
- ⑧ Sender
- ⑨ Receiver

Dimensional drawing (Dimensions in mm (inch))



GSE10, AC/DC, cable



- 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.
Universal bar clamp systems			
	Q-Lock, bar clamp system for G10 and reflector P250, Die-cast zinc, steel, zinc coated	BEF-KHSQ12R01	2071260
Plug connectors and cables			
	Head A: male connector, M12, 5-pin, straight Cable: unshielded For field bus technology	STE-1205-G	6022083

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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.

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