



Photoelectric sensors
G10, Through-beam photoelectric sensor

GSE10-R3812



Model Name > **GSE10-R3812**
Part No. > **1065912**



Illustration may differ

At a glance

- Long sensing ranges: up to 40 m
- PinPoint LED with bright and precise light spot
- With or without sensitivity adjustment
- 10 V DC ... 30 V DC or 24 V AC/DC ... 240 V AC/DC power supply with PNP/NPN or relay output
- Small housing design
- Rugged sensor housing with metal-reinforced holes for assembly
- Weatherproof housing: ideal for outdoor applications

Your benefits

- Long sensing ranges for maximum operating reserves
- Universal DC or AC/DC power supply for even greater application flexibility
- Highly reliable and durable despite optical interference or mechanical loads
- Wide range of accessories simplifies sensor integration: aids for assembly and connectors
- Long service life even when used in outdoor applications thanks to rugged weatherproof housing



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⁾
Wave length:	625 nm
Adjustment:	Potentiometer, 270 °
Light spot size (distance):	Ø 180 mm (15 m)

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

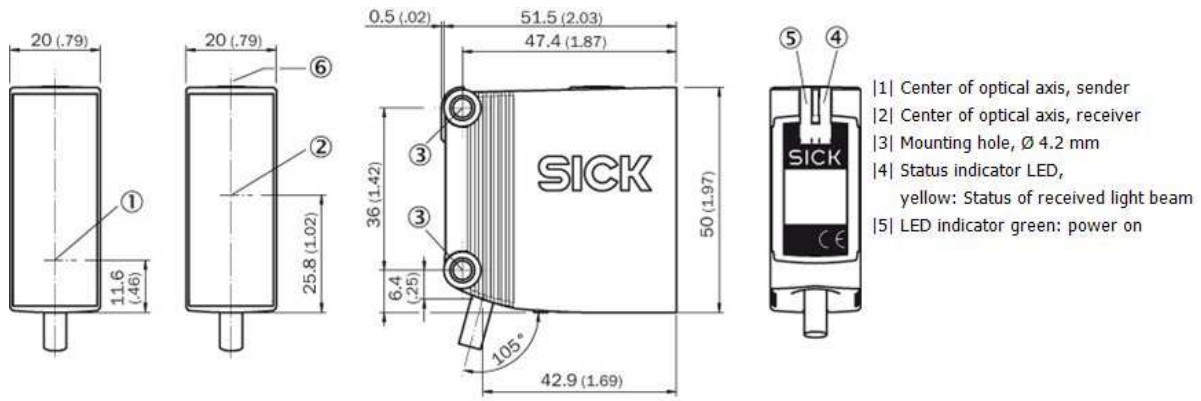
Mechanics/electronics

Supply voltage:	24 V AC/DC ... 240 V AC/DC ¹⁾
Ripple:	± 5 Vpp ²⁾
Power consumption, sender:	≤ 2 VA

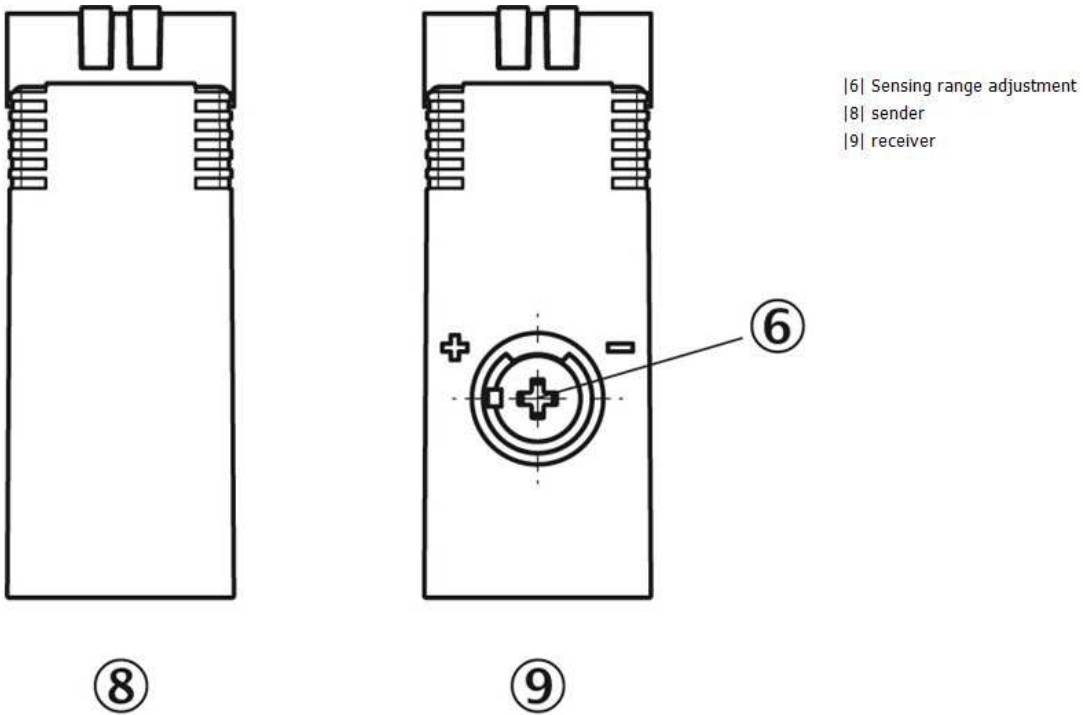
Power consumption, receiver:	≤ 2.5 VA
Output type:	Relay, SPDT, electrically isolated ³⁾
Response time:	≤ 10 ms
Connection type:	Cable, 5-wire, 2 m ⁴⁾
Cable material:	PVC
Conductor cross-section:	0.25 mm ²
Circuit protection:	C ⁵⁾
Protection class:	II ⁶⁾
Weight:	230 g
Polarisation filter:	-
Interference emission:	EN 61000-6-3 (2011-09) ⁷⁾
Special device:	-
Enclosure rating:	IP 67
Items supplied:	Mounting bracket BEF-G10UC01 (2x)
Usage category:	AC-15, DC-13, According to EN 60947-1
EMC:	EN 60947-5-2
Ambient temperature operation:	-30 °C ... +60 °C ⁸⁾
Ambient storage temperature:	-40 °C ... +70 °C
UL File No.:	NRKH.E348498 & NRKH7.E348498
Further standards:	UL325 ⁹⁾
Switching frequency max.:	20 Hz ¹⁰⁾
Switching load max. (current/voltage):	0.11 A (250 V DC), 3 A (250 V AC), 3 A (30 V DC)
Relay switching cycles min.:	100.000 cycles (3 A)
Housing material:	PVC/PMMA, Plastic

¹⁾ +/- 10 % ²⁾ May not exceed or fall below U_v tolerances ³⁾ Provide suitable spark suppression for inductive or capacitive loads 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 ... +60 °C ⁹⁾ Complies with the UL325 standard when used with sturdy protection hood (e.g. BEF-G10WSG, 2071960). ¹⁰⁾ With light/dark ratio 1:1

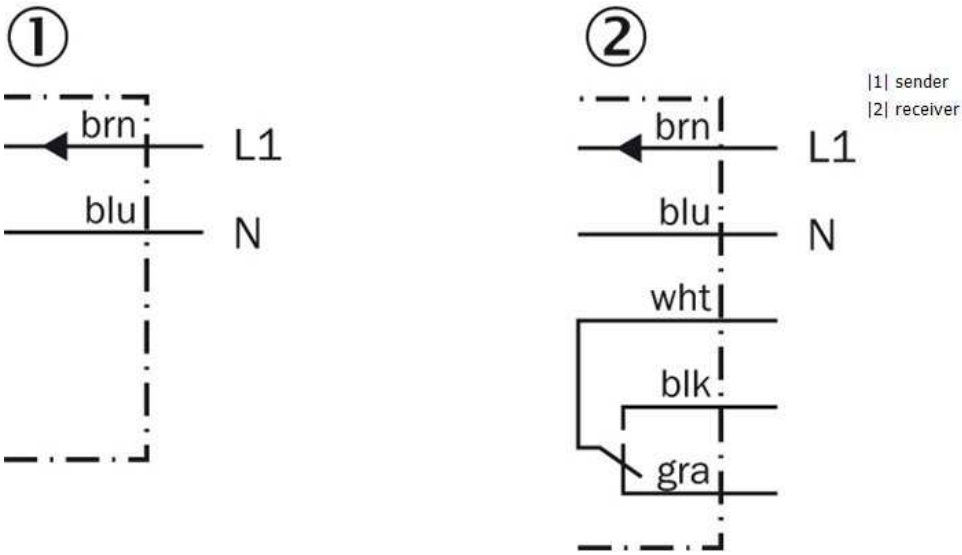
Dimensional drawing



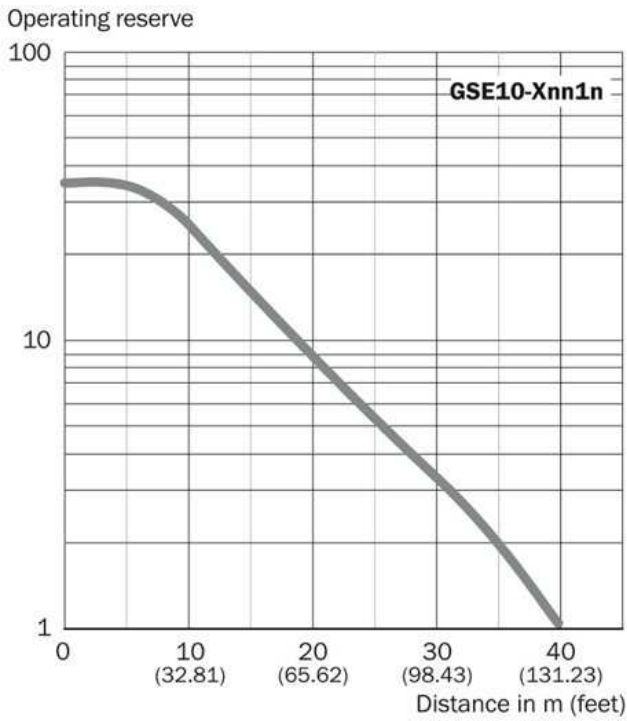
Adjustments possible



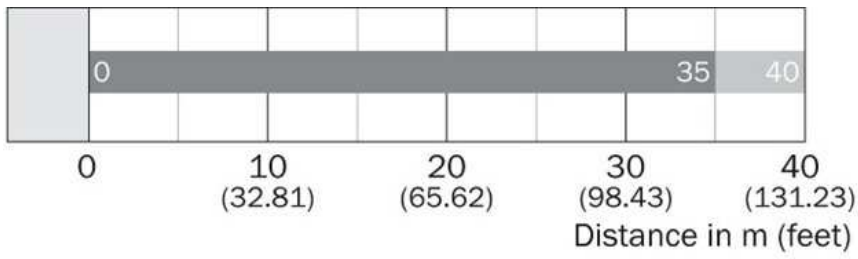
Connection diagram



Characteristic curve

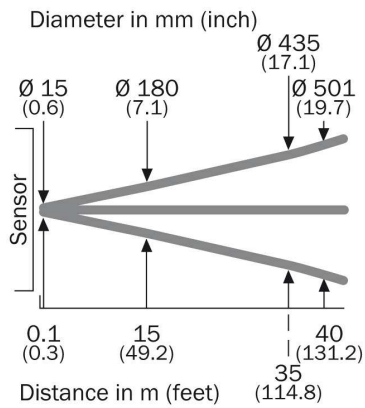


Sensing range diagram



■ Sensing range ■ Sensing range max.

Light spot size



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