



Photoelectric sensors
G10, Through-beam photoelectric sensor

GSE10-R3711



Type > [GSE10-R3711](#)
Part No. > [1065910](#)



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 |
| Light spot size (distance): | Ø 180 mm (15 m) |

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

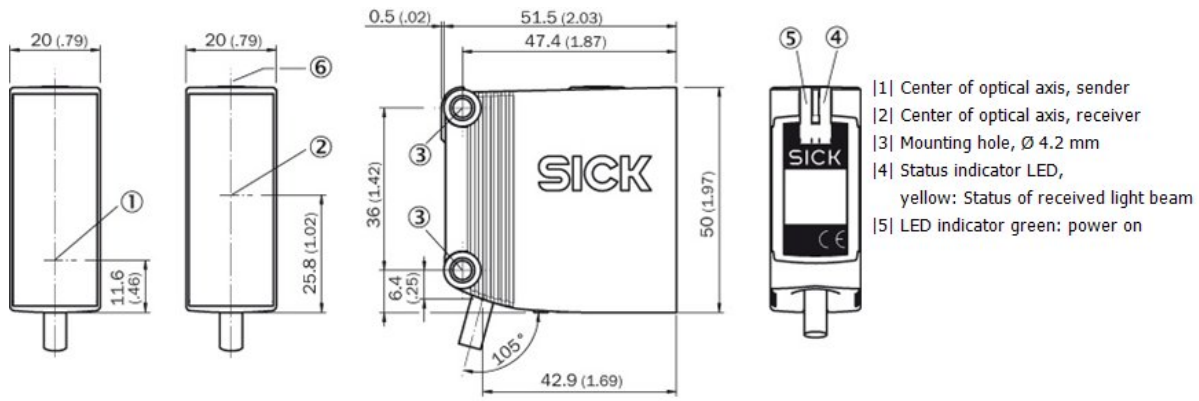
Mechanics/electronics

| | |
|------------------------------|--|
| 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 |

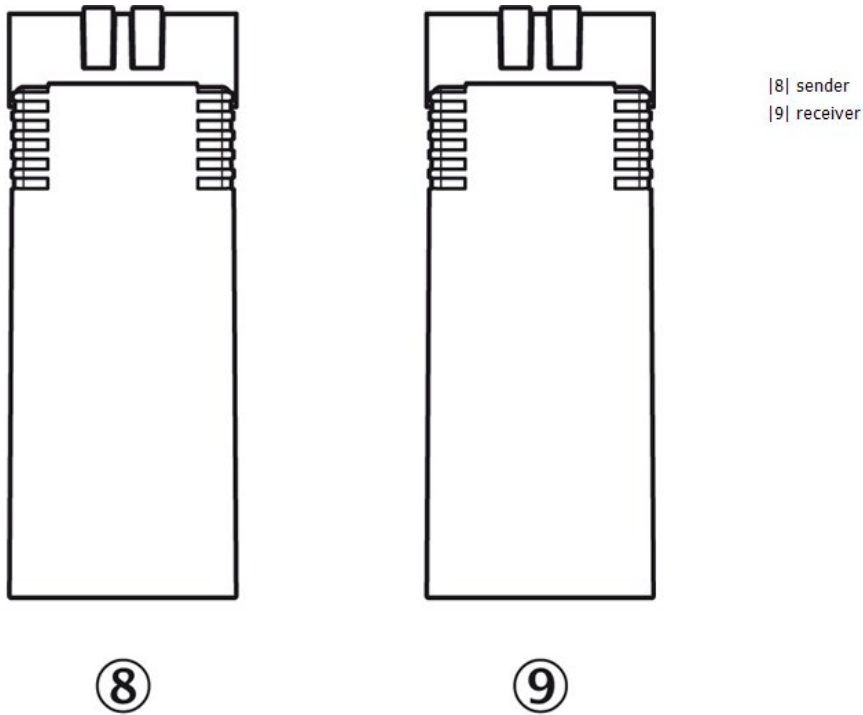
| | |
|--|--|
| Output type: | Relay, SPDT, electrically isolated ³⁾ |
| Response time: | ≤ 10 ms |
| Connection type: | Cable, 5-wire, 2 m ⁴⁾ |
| Cable material: | PVC |
| Conductor cross-section: | 0.25 mm ² |
| Circuit protection: | C ⁵⁾ |
| Protection class: | II ⁶⁾ |
| Weight: | 230 g |
| Polarisation filter: | - |
| Interference emission: | EN 61000-6-3 (2011-09) ⁷⁾ |
| Special device: | - |
| Enclosure rating: | IP 67 |
| Usage category: | AC-15, DC-13, According to EN 60947-1 |
| EMC: | EN 60947-5-2 |
| Ambient operating temperature: | -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

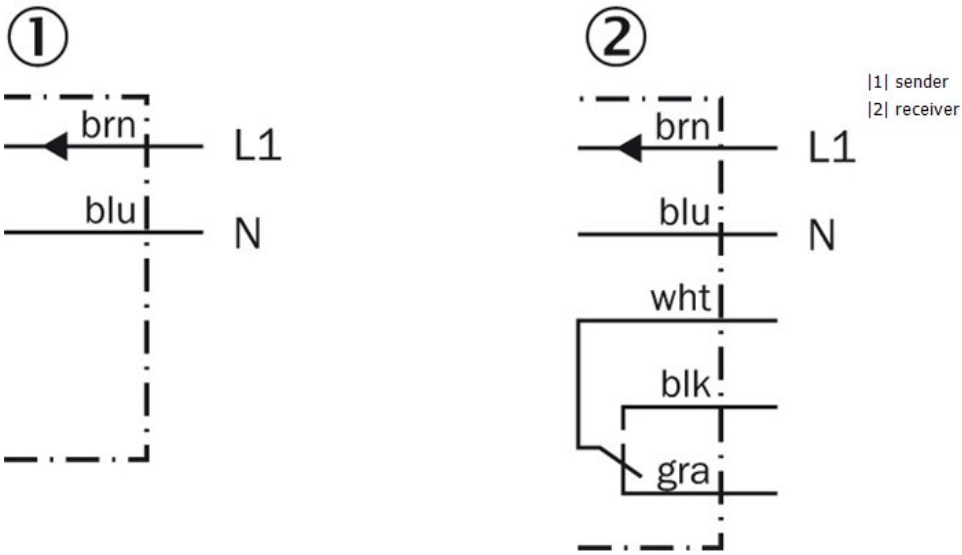
Dimensional drawing



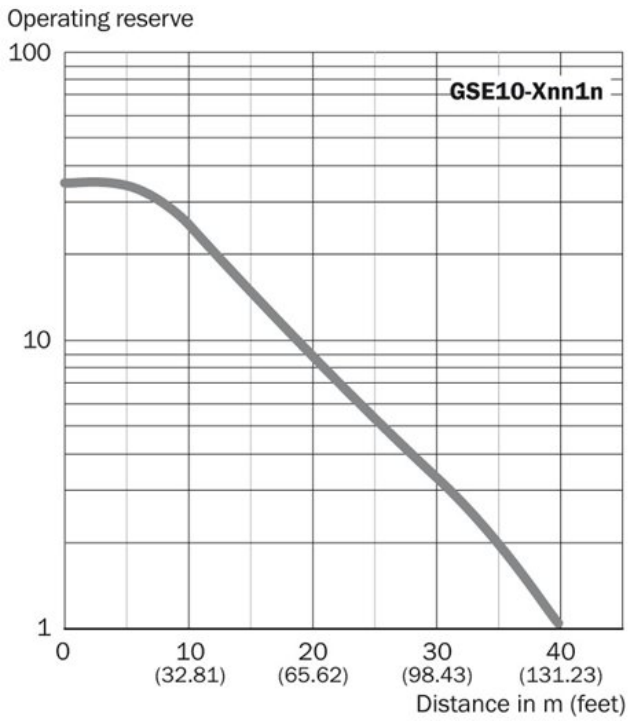
Adjustments possible



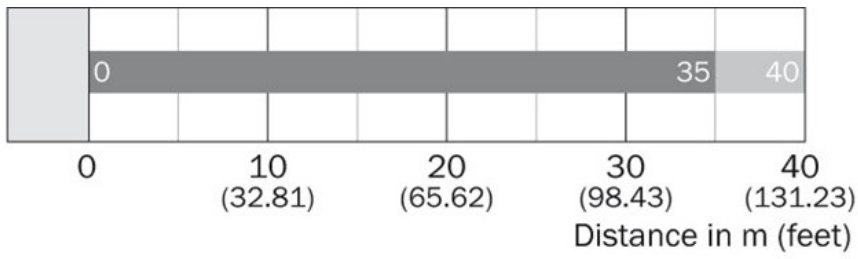
Connection diagram



Characteristic curve

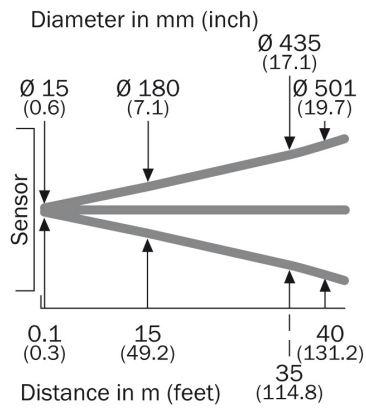


Sensing range diagram



■ Sensing range ■ Sensing range max.

Light spot size



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