



Photoelectric sensors
G10, Through-beam photoelectric sensor

GSE10-N1112



Model Name > GSE10-N1112
Part No. > 1065902



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 39 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

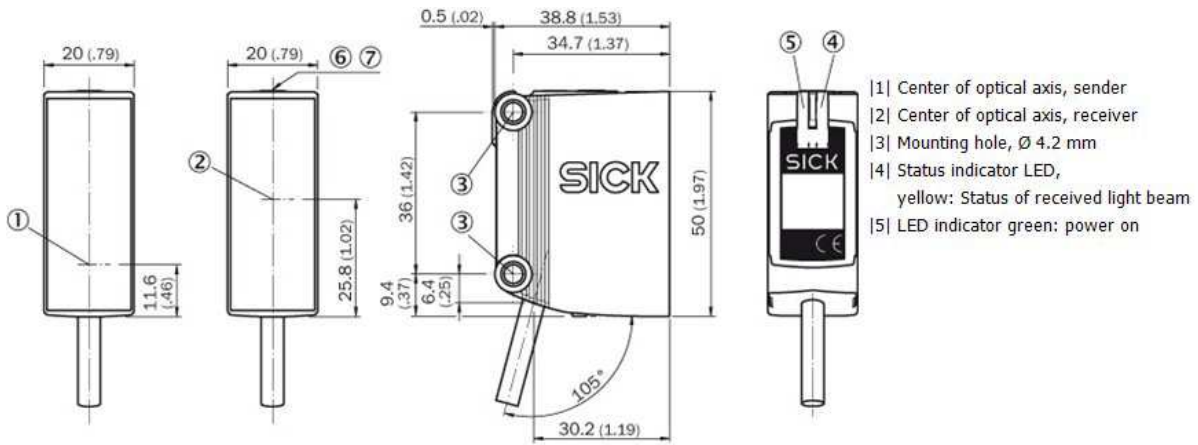
Mechanics/electronics

| | |
|----------------------------|-----------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Ripple: | ± 5 Vpp ²⁾ |
| Power consumption, sender: | ≤ 15 mA |
| Output type: | NPN, open collector |

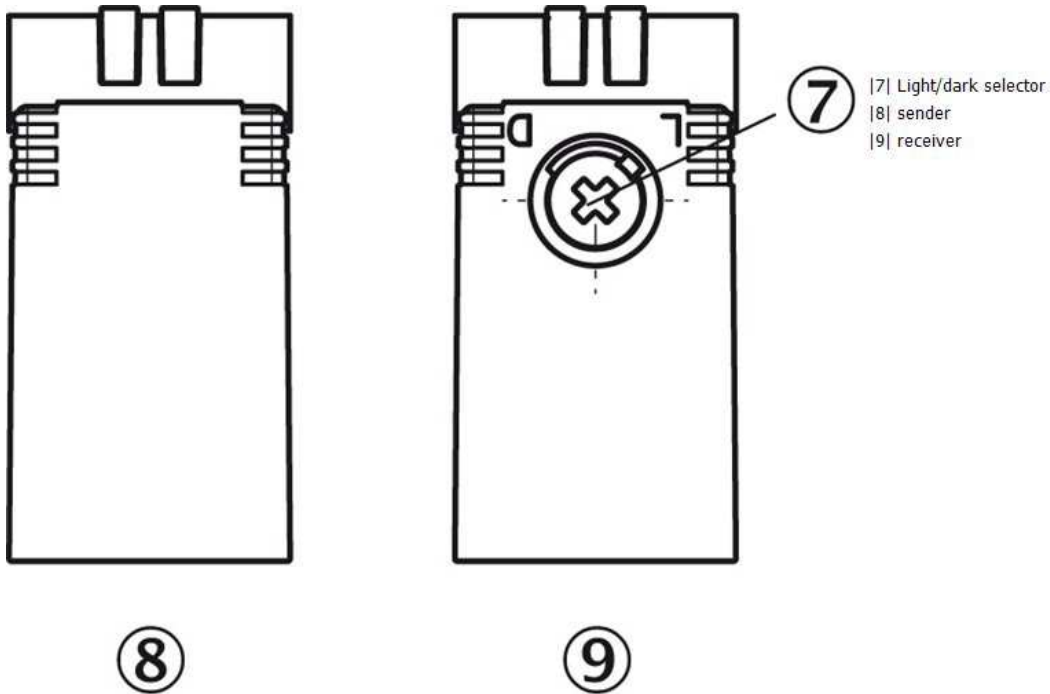
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|-----------------------------------|------------------------------------|
| Switching mode: | Light/dark switching |
| Switching mode selector: | Selectable via light/dark selector |
| Output current I _{max} : | ≤ 100 mA |
| Response time: | ≤ 500 μs ³⁾ |
| Connection type: | Cable, 3-wire, 2 m ⁴⁾ |
| Cable material: | PVC |
| Conductor cross-section: | 0.14 mm ² |
| Circuit protection::: | A, B, C, D ^{5) 6) 7) 8)} |
| Protection class: | III |
| Weight: | 180 g |
| Polarisation filter: | - |
| Special device: | - |
| Enclosure rating: | IP 67 |
| Items supplied: | Mounting bracket BEF-G10DC01 (2x) |
| EMC: | EN 60947-5-2 |
| Test input: | - |
| Ambient temperature operation: | -30 °C ... +60 °C |
| Ambient storage temperature: | -40 °C ... +70 °C |
| UL File No.: | NRKH.E348498 & NRKH7.E348498 |
| Further standards: | UL325 ⁹⁾ |
| Switching frequency max.: | 1,000 Hz ¹⁰⁾ |
| Housing material: | PVC/PMMA, Plastic |

1) Limit values when operated in short-circuit protected network: max. 8 A²⁾ May not exceed or fall below U_v tolerances³⁾ Signal transit time with resistive load⁴⁾ Do not bend below 0 °C⁵⁾ A = V_S connections reverse-polarity protected⁶⁾ B = inputs and output reverse-polarity protected⁷⁾ C = interference suppression⁸⁾ D = outputs overcurrent and short-circuit protected⁹⁾ 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

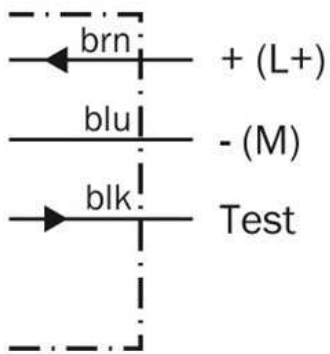


Adjustments possible

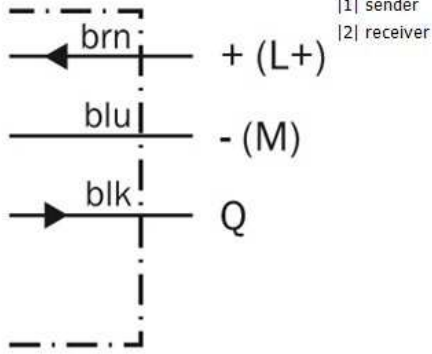


Connection diagram

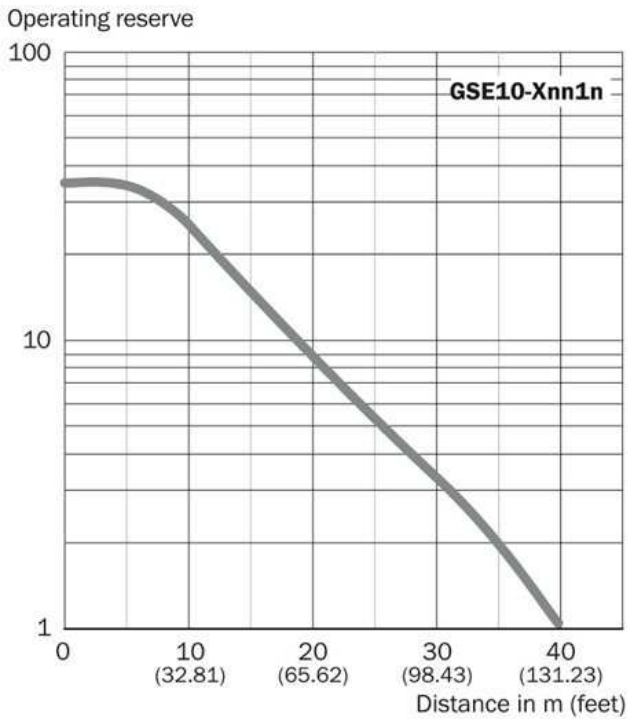
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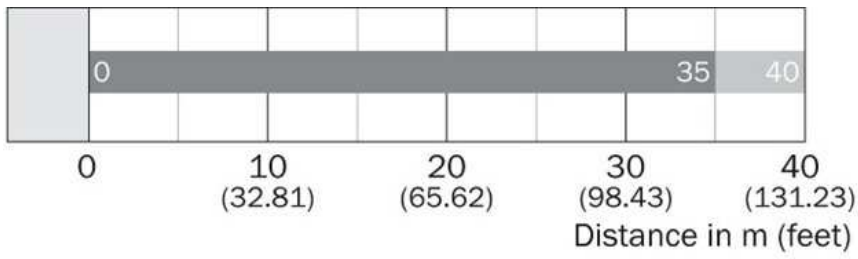
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Characteristic curve

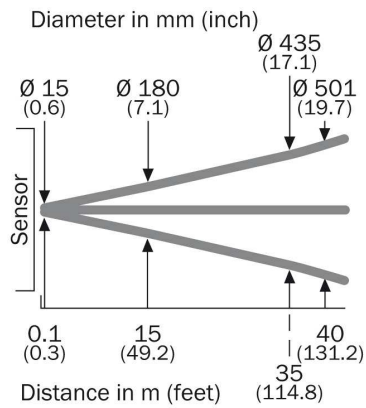


Sensing range diagram



■ Sensing range ■ Sensing range max.

Light spot size



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