



Photoelectric sensors G10, Through-beam photoelectric sensor

GSE10-P1212



Model Name > GSE10-P1212
Part No. > 1070732



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

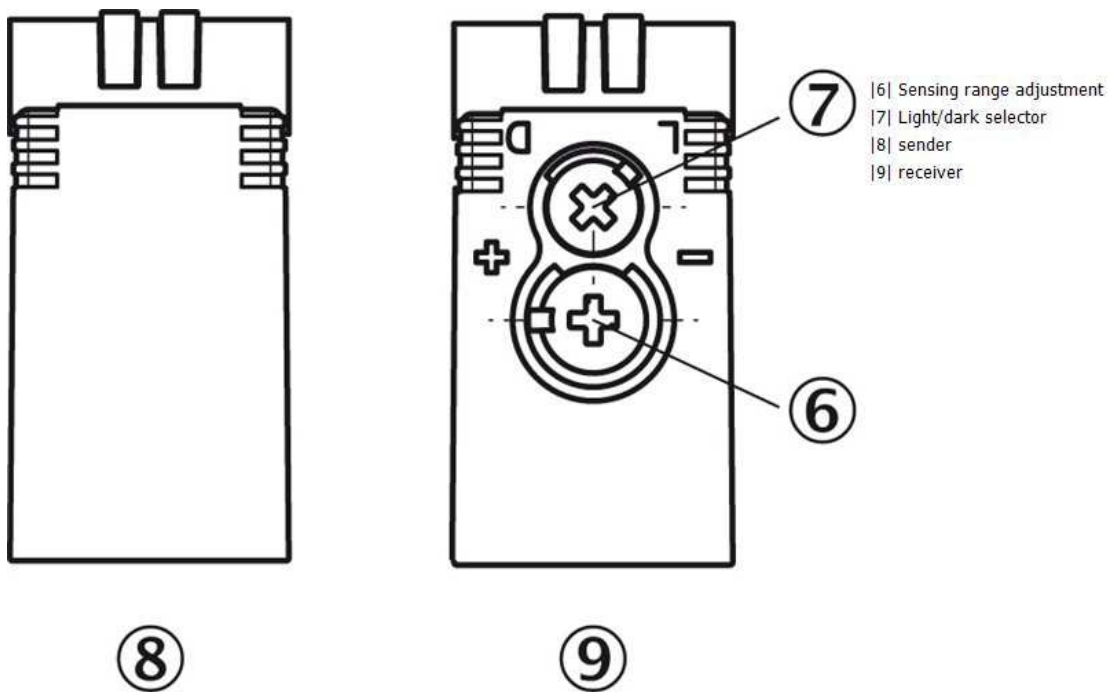
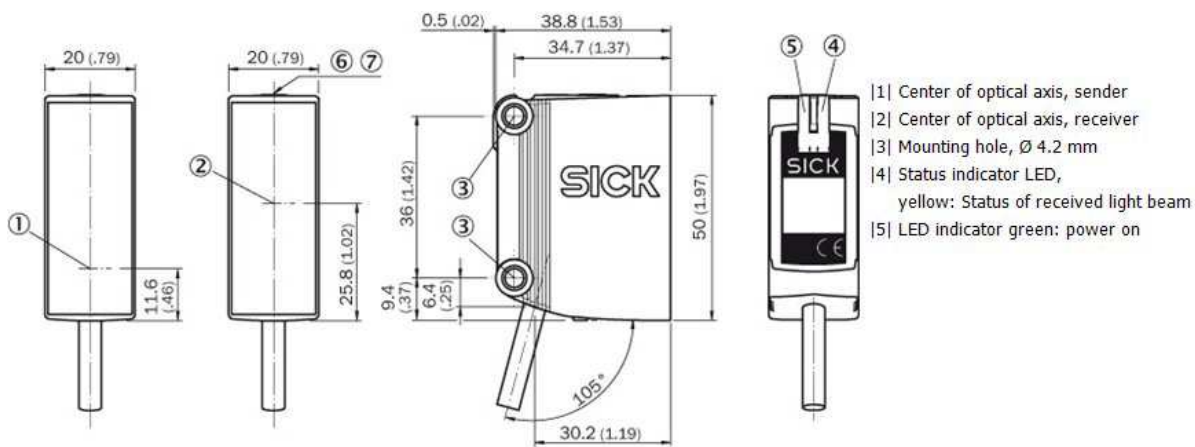
¹⁾ Average service life: 100,000 h at T_U = +25 °C

Mechanics/electronics

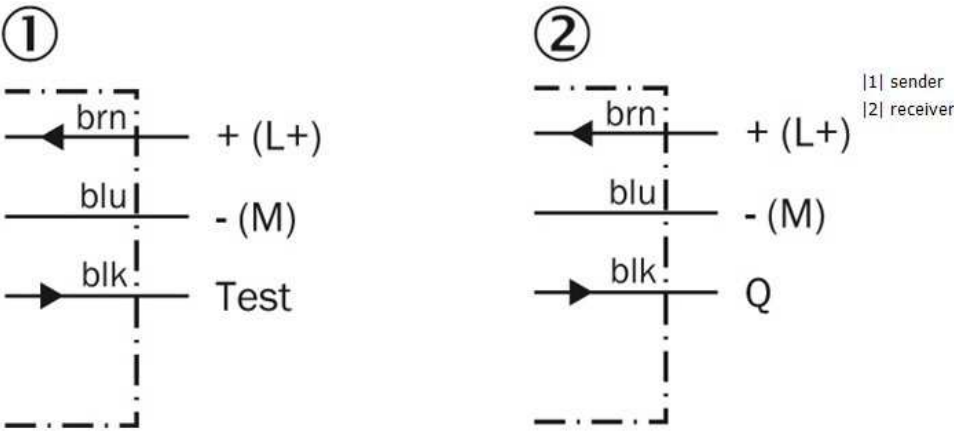
Supply voltage:	10 V DC ... 30 V DC ¹⁾
Residual ripple:	± 5 Vpp ²⁾
Power consumption, sender:	≤ 15 mA

Power consumption, receiver:	≤ 20 mA
Output type:	PNP, open collector
Switching mode:	Light/dark switching
Switching mode selector:	Selectable via light/dark selector
Output current I _{max} :	≤ 100 mA
Response time:	≤ 500 μs ³⁾
Electrical connection:	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 operating temperature:	-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

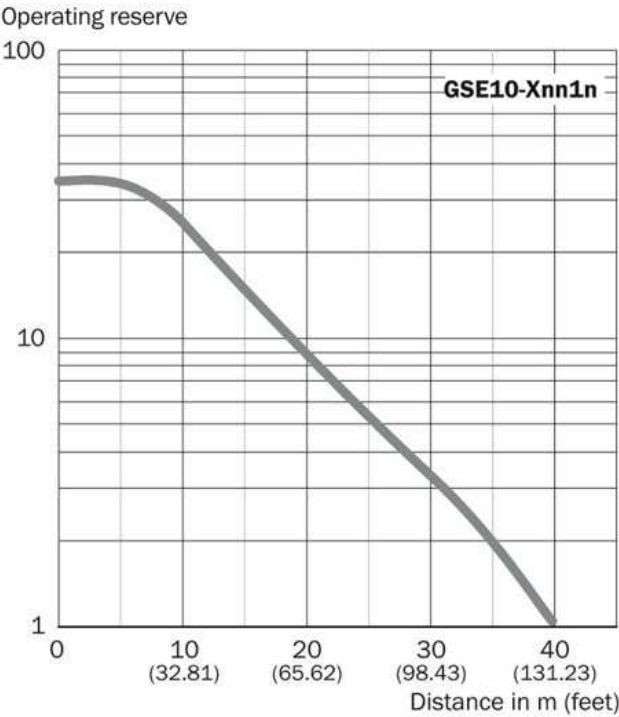
¹⁾ Limit values when operated in short-circuit protected network: max. 8 A ²⁾ May not exceed or fall below U_V tolerances ³⁾ Signal transit time with resistive load ⁴⁾ Do not bend below 0 °C ⁵⁾ A = V_S connections reverse-polarity protected ⁶⁾ B = inputs and output reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit protected ⁹⁾ Complies with the UL325 standard when used with sturdy protection hood (e.g. BEF-G10WSG, 2071960). ¹⁰⁾ With light/dark ratio 1:1



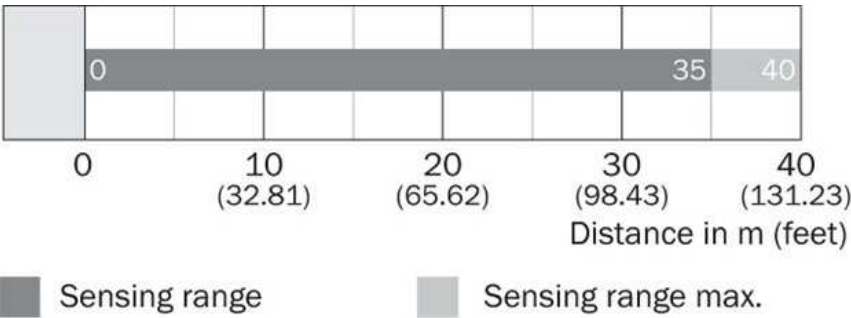
Connection diagram



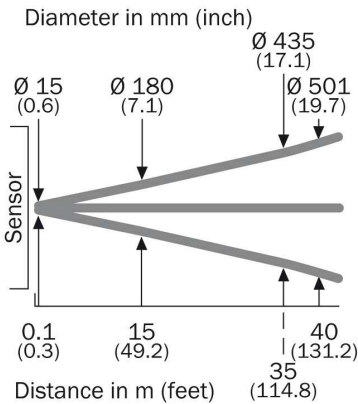
Characteristic curve



Sensing range diagram



Light spot size



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