GSE2FS-F0121S11

G2

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

GSE2FS-F0121S11 | G2
MINIATURE PHOTOELECTRIC SENSORS

Ordering information

Type	Part no.
GSE2FS-F0121S11	1110899

Other models and accessories ➜ www.sick.com/G2

Illustration may differ

Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	4.5 mm x 21 mm x 11 mm
Housing design (light emission)	Rectangular
Minimum detectable object (MDO)	0.5 mm
Sensing range max.	0 mm ... 200 mm
Sensing range	0 mm ... 150 mm
Type of light	Visible red light
Light source	PinPoint LED [1]
Light spot size (distance)	Ø 15 mm (150 mm)
Wave length	660 nm
Adjustment	None
Special features	Sender and receiver connected to one male connector M8, 4 pin, 500 mm

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

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC
Ripple	< 5 V_{pp} [1]

[1] May not exceed or fall below U_v tolerances.
[2] Without load.
[3] Signal transit time with resistive load.
[4] With light/dark ratio 1:1.
[5] Do not bend below 0 °C.
[6] A = V_S connections reverse-polarity protected.
[7] C = interference suppression.
[8] D = outputs overcurrent and short-circuit protected.

Current consumption	40 mA [2]
Switching output	PNP
Switching mode	Dark switching
Output current I$_{max.}$	≤ 50 mA
Response time	< 0.625 ms [3]
Switching frequency	800 Hz [4]
Connection type	Cable with male connector M8, 4 pin (common male connector for sender and receiver), 500 mm [5]
Cable material	PVC
Cable diameter	Ø 2.3 mm
Circuit protection	A [6] C [7] D [8]
Weight	40 g
Housing material	Plastic, VISTAL®
Optics material	Plastic, MABS
Enclosure rating	IP67
Ambient operating temperature	–20 °C … +50 °C
Ambient temperature, storage	–40 °C … +70 °C
UL File No.	NRKH.E348498 & NRKH7.E348498
Repeatability (T$_a$ not constant)	0.1 mm

[1] May not exceed or fall below U$_V$ tolerances.

[2] Without load.

[3] Signal transit time with resistive load.

[4] With light/dark ratio 1:1.

[5] Do not bend below 0 °C.

[6] A = V$_S$ connections reverse-polarity protected.

[7] C = interference suppression.

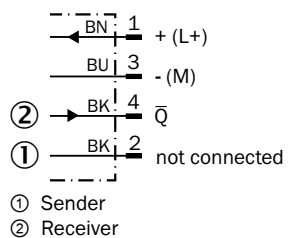[8] D = outputs overcurrent and short-circuit protected.

Classifications

ECLASS 5.0	27270901
ECLASS 5.1.4	27270901
ECLASS 6.0	27270901
ECLASS 6.2	27270901
ECLASS 7.0	27270901
ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716

ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

Connection diagram

Cd-468

```
        BN   1
      ──◄──┤  + (L+)
        BU   3
      ─────┤  - (M)
        BK   4
  ②  ─►──┤  Q̄
        BK   2
  ①  ─────┤  not connected
```

① Sender
② Receiver

Characteristic curve

GSE2 Flat, GSE2 Flat Side, 150 mm

Operating reserve

Distance in mm (inch)
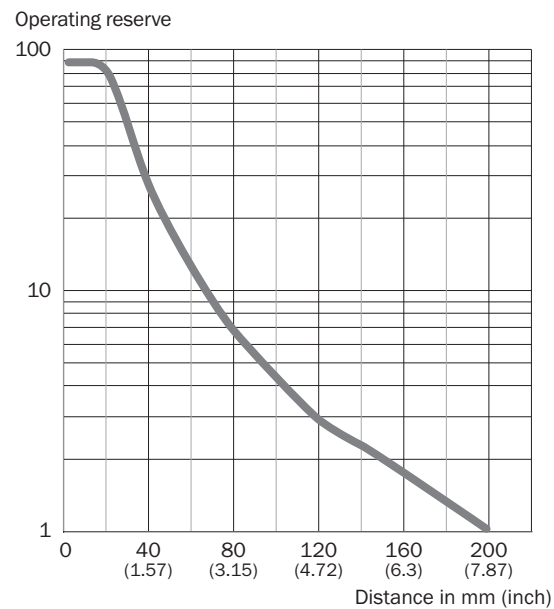
Light spot size

GSE2 Flat Side, 150 mm

Diameter in mm (inch)

Ø 2 (0.08)   Ø 7 (0.28)   Ø 15 (0.59)

Sensor

0
10 (0.39)   70 (2.76)   150 (5.91)

Distance in mm (inch)
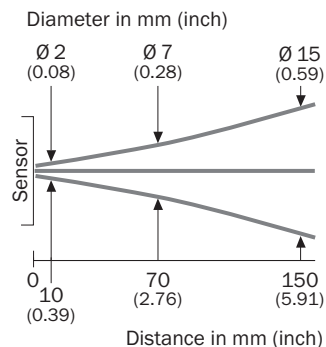
Sensing range diagram

GSE2 Flat, GSE2 Flat Side, 150 mm

① 0   150   200

0   40 (1.57)   80 (3.15)   120 (4.72)   160 (6.3)   200 (7.87)

Distance in mm (inch)

■ Sensing range   ■ Sensing range max.
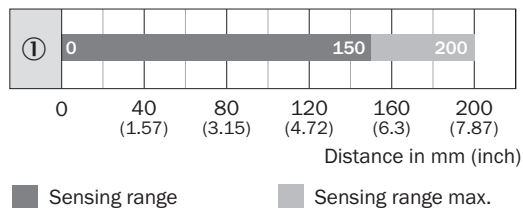
Dimensional drawing (Dimensions in mm (inch))

11 (0.43)   4.5 (0.18)

2.2 (0.09)

4 (0.16)

11 (0.43)

21 (0.83)

① ②

1 (0.04)

2.2 (0.09)

Ø 2.3 (0.09)
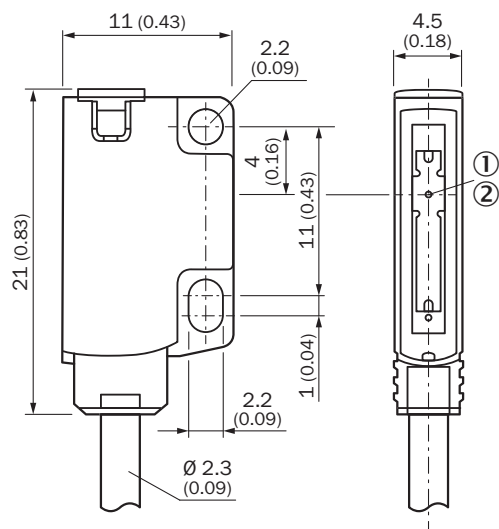
① Optical axis, receiver
② Optical axis, sender

Recommended accessories

Other models and accessories ➜ www.sick.com/G2

	Brief description	Type	Part no.
Mounting brackets and plates			
	10 pieces, Mounting plate for direct mounting, from the rear, on wall or machine, not adjustable. 10 Piece,Black ,Plastic, VISTAL®. Suitable for GSE2FS only	BEF-G2F-SIDE-SPACER-M2	2107264
Plug connectors and cables			
	• **Connection type head A:** Male connector, M8, 3-pin, straight • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** 0.14 mm² ... 0.5 mm²	STE-0803-G	6037322

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

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