



GSE2FS-E1011S20

G2

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
GSE2FS-E1011S20	1126654

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

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)	0.2 mm
Sensing range max.	0 mm ... 60 mm
Sensing range	0 mm ... 40 mm
Type of light	Visible red light
Light source	LED ¹⁾
Light spot size (distance)	Ø 8 mm (40 mm)
Wave length	660 nm
Adjustment	None

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

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC
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¹⁾ May not fall below or exceed U_y 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.

Ripple	< 5 V _{pp} ¹⁾
Current consumption	20 mA ²⁾
Switching output	NPN
Switching mode	Dark switching
Output current I_{max}	≤ 50 mA
Response time	< 0.625 ms ³⁾
Switching frequency	800 Hz ⁴⁾
Connection type	Cable, 3-wire, 2 m ⁵⁾
Cable material	Plastic, PVC
Cable diameter	Ø 2.3 mm
Circuit protection	A ⁶⁾ C ⁷⁾ D ⁸⁾
Weight	42.6 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

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Certificates

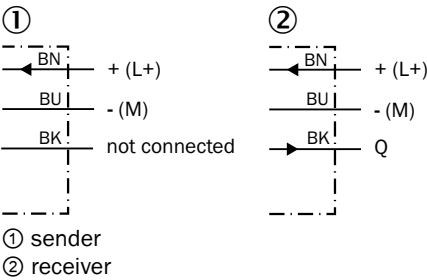
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cRUus certificate	✓

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-049



Characteristic curve

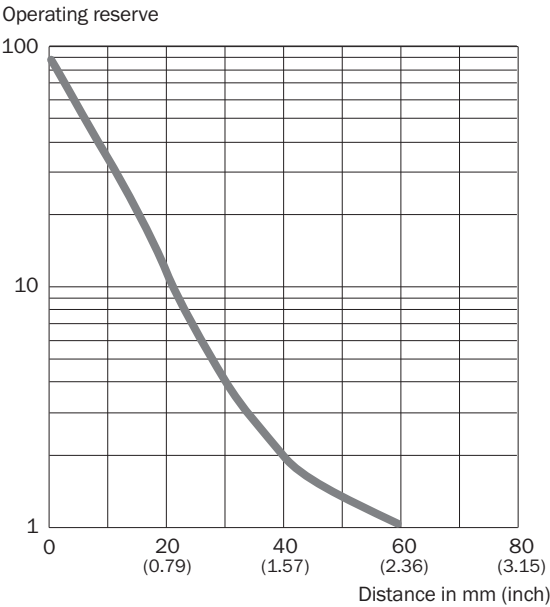


Figure 1 is a line graph titled "Diameter in mm (inch)". The vertical axis is labeled "Sensor" and the horizontal axis is labeled "Distance in mm (inch)". The horizontal axis has three major tick marks at 20, 40, and 60 mm, with corresponding values in inches in parentheses: (0.79), (1.57), and (2.36). Three curves are plotted, each representing a different sensor diameter: Ø 4 (0.16), Ø 8 (0.31), and Ø 12 (0.47). The curves show that the sensor diameter increases with distance, and the rate of increase is higher for larger diameters. The Ø 4 curve is the highest, followed by the Ø 8 curve, and then the Ø 12 curve.

Technical drawing of a mechanical part, likely a pin or plug, shown from two perspectives: a front view (left) and a side view (right).

Front View Dimensions:

- Total height: 21 (0.83)
- Top flange width: 11 (0.43)
- Top flange thickness: 2.2 (0.09)
- Distance from top flange to center of hole: 4 (0.16)
- Hole diameter: Ø 2.3 (0.09)
- Bottom flange thickness: 1 (0.04)
- Bottom flange width: 2.2 (0.09)

Side View Dimensions:

- Total length: 4.5 (0.18)
- Feature ① points to the central longitudinal slot.
- Feature ② points to the small circular hole at the bottom of the slot.

- ① optical axis, receiver
- ② optical axis, sender

Recommended accessories

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

	Brief description	Type	part no.
Mounting systems			
	• Description: Mounting plate for direct mounting, from the rear, on wall or machine, not adjustable. 10 Piece ,Black ,Plastic, VISTAL®. Suitable for GSE2FS only • Packing unit: 10 pieces	BEF-G2F-SIDE-SPACER-M2	2107264
connectors and cables			
	• Connection type head A: Male connector, M8, 3-pin, straight, A-coded • 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.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com