



GSE2FS-N0161S01

G2F

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
GSE2FS-N0161S01	1100225

Included in delivery: BEF-G2F-SIDE-SPACER-M2 (2)

Other models and accessories → www.sick.com/G2F

Detailed technical data

Features

Sensor/ detection principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	11 mm x 21 mm x 4.5 mm
Housing design (light emission)	Rectangular
Minimum detectable object (MDO)	1.8 mm
Sensing range max.	0 mm ... 1,000 mm
Sensing range	0 mm ... 1,000 mm
Type of light	Visible red light
Light source	PinPoint LED ¹⁾
Light spot size (distance)	Ø 100 mm (1,000 mm)
Wave length	660 nm
Adjustment	None

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

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 5 V _{pp} ¹⁾
Current consumption	20 mA ²⁾

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.

Switching output	NPN
Switching mode	Light switching
Output current $I_{\max}$	< 50 mA
Response time	< 0.625 ms ³⁾
Switching frequency	800 Hz ⁴⁾
Connection type	Cable, 3-wire, 500 mm ⁵⁾
Cable material	PVC
Cable diameter	Ø 3 mm
Circuit protection	A ⁶⁾ C ⁷⁾ D ⁸⁾
Weight	13 g
Housing material	Plastic, VISTAL®
Optics material	Plastic, MABS
Enclosure rating	IP67
Items supplied	2 x BEF-G2F-SIDE-SPACER-M2 (2107264)
Ambient operating temperature	-20 °C ... +50 °C
Ambient storage temperature	-40 °C ... +70 °C
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.

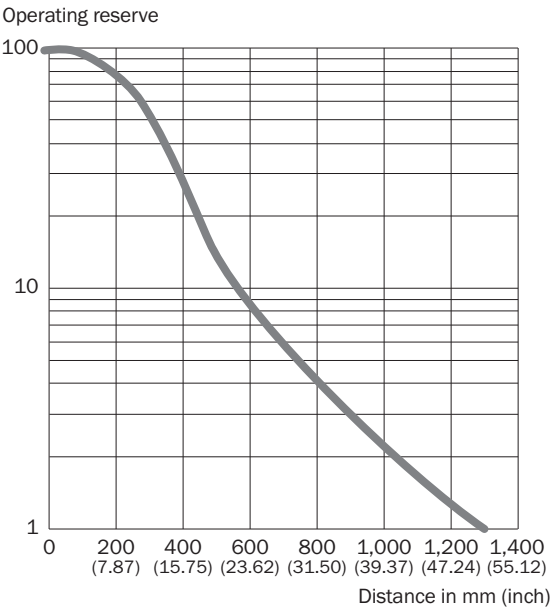
7) C = interference suppression.

8) D = outputs overcurrent and short-circuit protected.

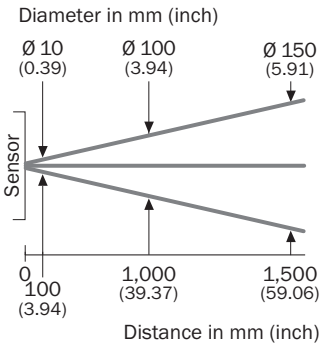
Classifications

ECI@ss 5.0	27270901
ECI@ss 5.1.4	27270901
ECI@ss 6.0	27270901
ECI@ss 6.2	27270901
ECI@ss 7.0	27270901
ECI@ss 8.0	27270901
ECI@ss 8.1	27270901
ECI@ss 9.0	27270901
ECI@ss 10.0	27270901
ECI@ss 11.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
UNSPSC 16.0901	39121528

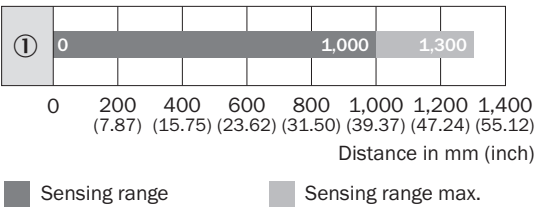
Characteristic curve



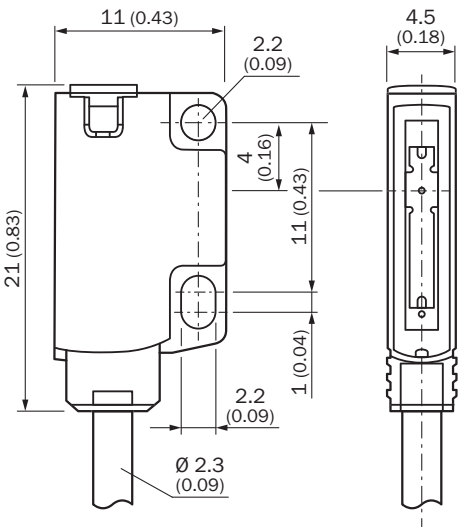
Light spot size



Sensing range diagram



Dimensional drawing (Dimensions in mm (inch))



Recommended accessories

Other models and accessories → www.sick.com/G2F

	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 GTB2F and GSE2F	BEF-G2F-FLAT-SPACER-M2	2107263
Plug connectors and cables			
	Head A: male connector, M8, 3-pin, straight Head B: - Cable: unshielded	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