



GSE6-F2411V

G6

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
GSE6-F2411V	1084106

Other models and accessories → www.sick.com/G6

Illustration may differ

ECOLAB



Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
Sensing range max.	0 m ... 15 m
Sensing range	0 m ... 10 m
Polarisation filters	No
Emitted beam	
Light source	PinPoint LED ¹⁾
Type of light	Visible red light
Light spot size (distance)	Ø 310 mm (10 m)
Key LED figures	
Wave length	650 nm
Adjustment	Potentiometer, 270°
Special applications	Hygienic and washdown zones

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

Electrical data

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	± 10 % ²⁾
Current consumption	30 mA ³⁾
Protection class	III

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not exceed or fall below U_v tolerances.

³⁾ Without load.

⁴⁾ At U_v > 24 V, I_A max. = 50 mA.

⁵⁾ Signal transit time with resistive load.

⁶⁾ With light/dark ratio 1:1.

⁷⁾ A = V_S connections reverse-polarity protected.

⁸⁾ B = inputs and output reverse-polarity protected.

⁹⁾ D = outputs overcurrent and short-circuit protected.

Digital output	Type	PNP
	Signal voltage PNP HIGH/LOW	$V_S - (\leq 3 \text{ V}) / \text{ approx. } 0 \text{ V}$
	Output current I_{max}	$\leq 100 \text{ mA}^4)$
	Response time	$< 625 \mu\text{s}^5)$
	Switching frequency	$1,000 \text{ Hz}^6)$
Switching mode		Light/dark switching
Output function		Complementary switching output
Circuit protection		A ⁷⁾ B ⁸⁾ D ⁹⁾

1) Limit values when operated in short-circuit protected network: max. 8 A.

2) May not exceed or fall below U_V tolerances.

3) Without load.

4) At $U_V > 24 \text{ V}$, $I_A \text{ max.} = 50 \text{ mA}$.

5) Signal transit time with resistive load.

6) With light/dark ratio 1:1.

7) A = V_S connections reverse-polarity protected.

8) B = inputs and output reverse-polarity protected.

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

Mechanical data

Housing		Rectangular
Dimensions (W x H x D)		15 mm x 44 mm x 22 mm
Connection		Cable, 4-wire, 2 m ¹⁾
Connection detail	Conductor size	0.14 mm ²
	Length of cable (L)	2 m ¹⁾
Material	Housing	Stainless steel, Stainless steel V4A (1.4404, 316L)
	Front screen	Plastic, PMMA
	Cable	PVC
Weight		150 g

1) Do not bend below 0 °C.

Ambient data

Enclosure rating	IP67 IP69K ¹⁾
Ambient operating temperature	-25 °C ... +55 °C ²⁾
Ambient temperature, storage	-30 °C ... +75 °C
UL File No.	NRKH.E348498 & NRKH7.E348498

1) According to ISO 20653:2013-03.

2) Temperature stability following adjustment +/-10 °C.

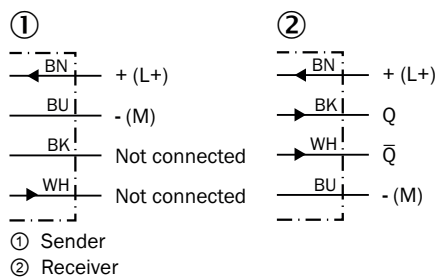
Classifications

eCl@ss 5.0	27270901
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eCl@ss 5.1.4	27270901
eCl@ss 6.0	27270901
eCl@ss 6.2	27270901
eCl@ss 7.0	27270901
eCl@ss 8.0	27270901
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eCl@ss 11.0	27270901
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ETIM 5.0	EC002716
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UNSPSC 16.0901	39121528

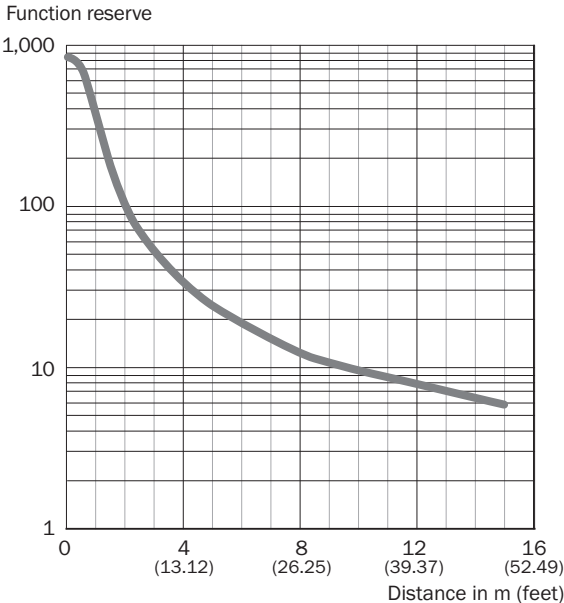
Connection diagram

Cd-231



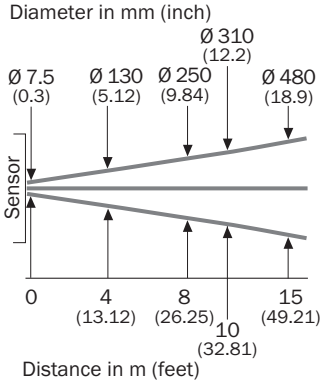
Characteristic curve

GSE6 Inox, Red, Standard



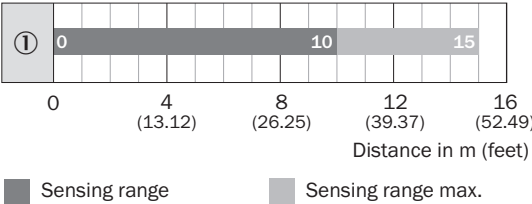
Light spot size

GSE6 Inox, Red, Standard



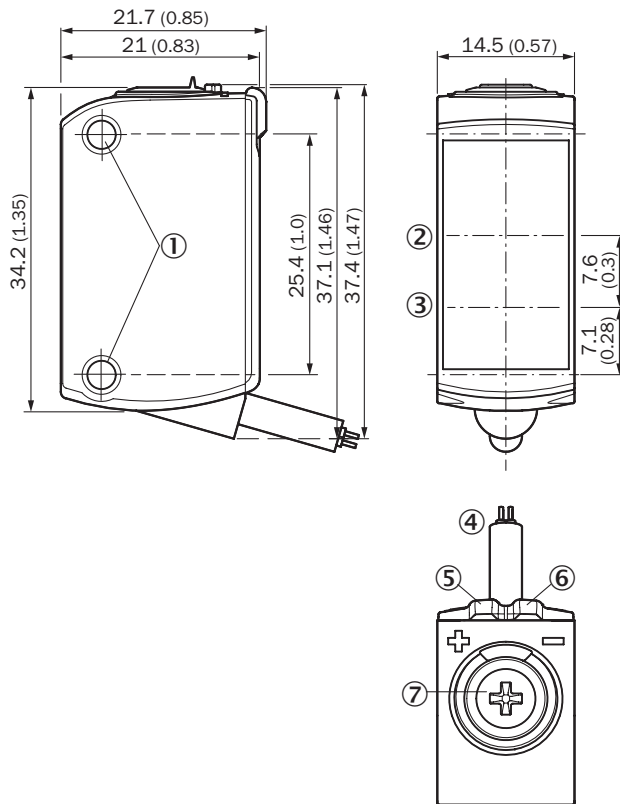
Sensing range diagram

GSE6 Inox, Red, Standard



Dimensional drawing (Dimensions in mm (inch))



GTB6, GTE6, GL6, GSE6 Inox, cable (with male connector)



- ① M3 mounting hole
- ② Optical axis, receiver
- ③ Optical axis, sender
- ④ Connection
- ⑤ LED indicator yellow: Status of received light beam
- ⑥ LED indicator green: Supply voltage active
- ⑦ Potentiometer

Recommended accessories

Other models and accessories → www.sick.com/G6

	Brief description	Type	Part no.
Universal bar clamp systems			
	Clamp bar to fix G6 sensors on rods of 12 mm, clamp-on design up to 4 mm wall thickness, aluminum (clamp bar), stainless steel (bracket), clamp bar mounting and clamp function, mounting bracket, mounting hardware	BEF-KHS-IS12G6	2086865
Mounting brackets and plates			
	Mounting bracket for wall mounting, stainless steel, mounting hardware included	BEF-W100-A	5311520

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: male connector, M8, 4-pin, straight Cable: unshielded	STE-0804-G	6037323

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