



GTE6-F4411V

G6

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ

ECOLAB



Ordering information

Type	Part no.
GTE6-F4411V	1084099

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

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Sensing range max.	10 mm ... 300 mm ¹⁾
Sensing range	15 mm ... 250 mm
Light source	PinPoint LED ²⁾
Type of light	Visible red light
Key LED figures	
Wave length	650 nm
Light spot size (distance)	Ø 6 mm (100 mm)
Adjustment	Mechanical spindle, 5 turns
Special applications	Hygienic and washdown zones

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

²⁾ Average service life: 100,000 h at T_J = +25 °C.

Electrical data

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
-------------------------------------	-----------------------------------

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.

Ripple	$\pm 10\%$ ²⁾
Power consumption	30 mA ³⁾
Protection class	III
Switching outputs	
Switching output	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	$< 1.25\text{ ms}$ ⁵⁾
Switching frequency	500 Hz ⁶⁾
Switching mode	Light/dark switching
Output function	Complementary switching output
Circuit protection	A ⁷⁾ B ⁸⁾ D ⁹⁾
UL File No.	NRKH.E348498 & NRKH7.E348498

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	Male connector M8, 4-pin
Material	
Housing	Stainless steel, Stainless steel V4A (1.4404, 316L)
Front screen	Plastic, PMMA
Weight	40 g

Ambient data

Enclosure rating	IP67 IP69K ¹⁾
Ambient operating temperature	$-25\text{ }^\circ\text{C} \dots +55\text{ }^\circ\text{C}$ ²⁾
Ambient storage temperature	$-30\text{ }^\circ\text{C} \dots +75\text{ }^\circ\text{C}$

¹⁾ According to ISO 20653:2013-03.

²⁾ Temperature stability following adjustment $\pm 10\text{ }^\circ\text{C}$.

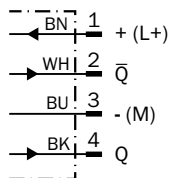
Classifications

ECl@ss 5.0	27270903
ECl@ss 5.1.4	27270903
ECl@ss 6.0	27270903

ECl@ss 6.2	27270903
ECl@ss 7.0	27270903
ECl@ss 8.0	27270903
ECl@ss 8.1	27270903
ECl@ss 9.0	27270903
ECl@ss 10.0	27270904
ECl@ss 11.0	27270904
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719
UNSPSC 16.0901	39121528

Connection diagram

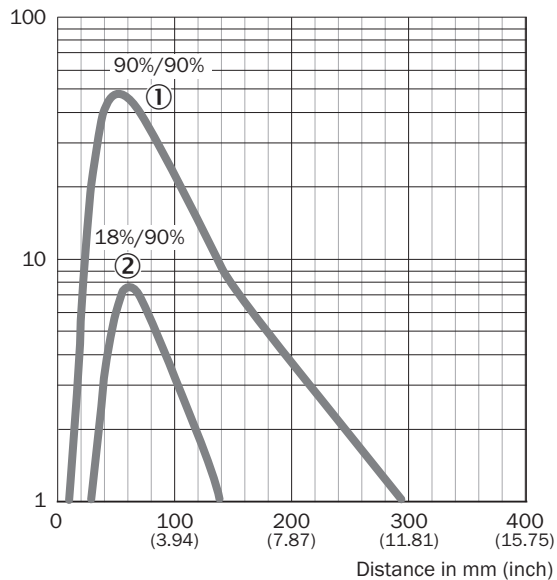
Cd-084



Characteristic curve

GTE6 Inox, Red, Standard

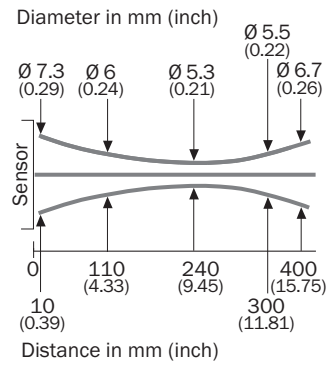
Function reserve



- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90% remission

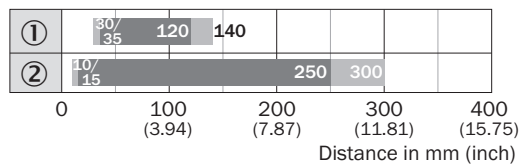
Light spot size

GTE6 Inox, Red, Standard



Sensing range diagram

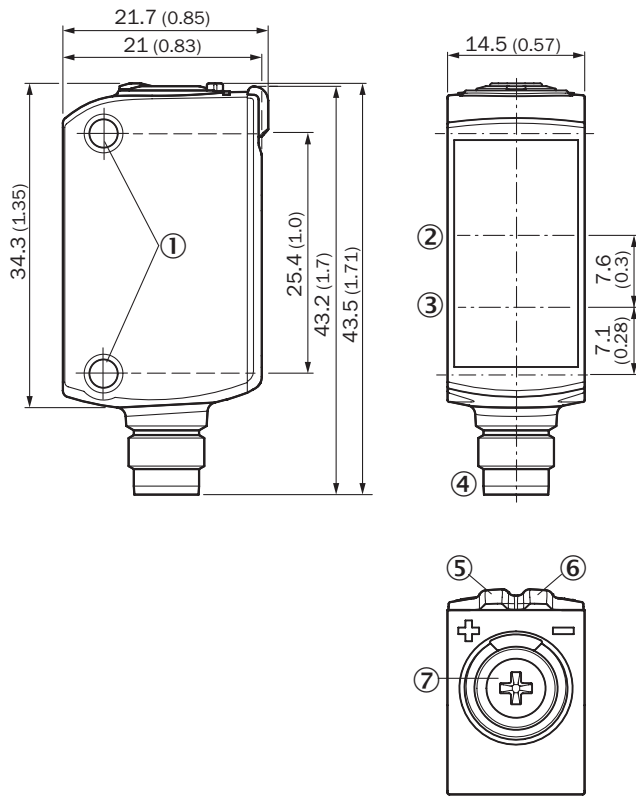
GTE6 Inox, Red, Standard



- Sensing range
- Sensing range max.
- ① Sensing range on gray, 18% remission
- ② Sensing range on white, 90% remission

Dimensional drawing (Dimensions in mm (inch))



GTB6, GTE6, GL6, GSE6 Inox, 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.
Mounting brackets and plates			
	Mounting bracket for wall mounting, stainless steel, mounting hardware included	BEF-W100-A	5311520
Plug connectors and cables			
	Head A: female connector, M8, 4-pin, straight Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other kind., Not resistant against lactic acid & hydrogen peroxide (H2O2)	DOL-0804-G05MNI	6059194

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