

# GTB6-F4411V G6

**PHOTOELECTRIC SENSORS** 





## Ordering information

Туре	part no.
GTB6-F4411V	1084092

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

Illustration may differ



### Detailed technical data

### **Features**

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression
Sensing range max.	5 mm 250 mm <sup>1)</sup>
Sensing range	35 mm 140 mm
Emitted beam	
Light source	PinPoint LED <sup>2)</sup>
Type of light	Visible red light
Light spot size (distance)	Ø 6 mm (100 mm)
Key LED figures	
Wave length	650 nm
Adjustment	Mechanical spindle, 5 turns
Special applications	Hygienic and washdown zones

 $<sup>^{1)}</sup>$  Object with 90% remission (based on standard white, DIN 5033).

<sup>&</sup>lt;sup>2)</sup> Average service life: 100,000 h at  $T_U$  = +25 °C.

#### **Electronics**

Supply voltage $\mathbf{U}_{\mathrm{B}}$	10 V DC 30 V DC <sup>1)</sup>
Ripple	± 10 % <sup>2)</sup>
Current consumption	30 mA <sup>3)</sup>
Protection class	III
Digital output	
Туре	PNP
Switching mode	Light/dark switching
Signal voltage PNP HIGH/LOW	$V_S$ - ( $\leq 3 \text{ V}$ ) / approx. 0 V
Output current I <sub>max.</sub>	$\leq$ 100 mA $^{4)}$
Response time	< 1.25 ms <sup>5)</sup>
Switching frequency	500 Hz <sup>6)</sup>
Output function	Complementary switching output
Circuit protection	A <sup>7)</sup> B <sup>8)</sup> D <sup>9)</sup>

 $<sup>^{1)}\,\</sup>mathrm{Limit}$  values when operated in short-circuit protected network: max. 8 A.

#### Mechanics

Housing	Rectangular
Dimensions (W x H x D)	15 mm x 44 mm x 22 mm
Connection	Male connector M8, 4-pin
Material	
Housing	Metal, Stainless steel V4A (1.4404, 316L)
Front screen	Plastic, PMMA
Weight	40 g

### Ambient data

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

<sup>&</sup>lt;sup>1)</sup> According to ISO 20653:2013-03.

#### Certificates

EU declaration of conformity	✓
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 $<sup>^{2)}\,\</sup>mbox{May}$  not fall below or exceed  $\mbox{U}_{\mbox{\scriptsize V}}$  tolerances.

<sup>3)</sup> Without load.

 $<sup>^{4)}</sup>$  At Uv > 24 V, IA max. = 50 mA.

<sup>&</sup>lt;sup>5)</sup> Signal transit time with resistive load.

<sup>6)</sup> With light/dark ratio 1:1.

 $<sup>^{7)}</sup>$  A = V<sub>S</sub> connections reverse-polarity protected.

<sup>8)</sup> B = inputs and output reverse-polarity protected.

 $<sup>^{9)}</sup>$  D = outputs overcurrent and short-circuit protected.

<sup>&</sup>lt;sup>2)</sup> Temperature stability following adjustment +/-10 °C.

## GTB6-F4411V | G6

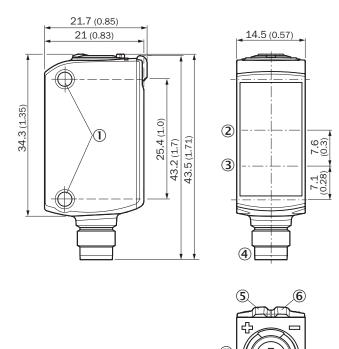
## PHOTOELECTRIC SENSORS

UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
ECOLAB certificate	✓
cULus certificate	✓
Photobiological safety (DIN EN 62471) certificate	<b>√</b>

## Classifications

ECLASS 5.0	27270904
ECLASS 5.1.4	27270904
ECLASS 6.0	27270904
ECLASS 6.2	27270904
ECLASS 7.0	27270904
ECLASS 8.0	27270904
ECLASS 8.1	27270904
ECLASS 9.0	27270904
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

## Dimensional drawing GTB6, GTE6, GL6, GSE6 Inox, male connector

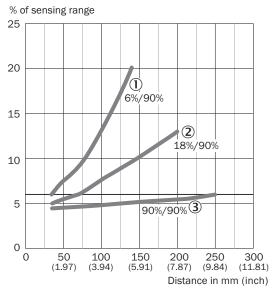


Dimensions in mm (inch)

- 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

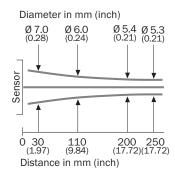
## Connection diagram Cd-084

### Characteristic curve GTB6 Inox, Red, Standard

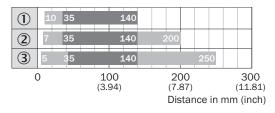


- ① Sensing range on black, 6% remission factor
- 2 Sensing range on gray, 18% remission factor
- 3 Sensing range on white, 90% remission factor

### Light spot size GTB6 Inox, Red, Standard



## Sensing range diagram GTB6 Inox, Red, Standard



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

### Recommended accessories

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

	Brief description	Туре	part no.
Mounting systems			
2	<ul> <li>Description: Clamp bar to fix G6 sensors on rods of 12 mm, clamp-on design up to 4 mm wall thickness</li> <li>Material: Steel</li> <li>Details: Aluminum (clamp bar), stainless steel (bracket)</li> <li>Items supplied: Clamp bar mounting and clamp function, mounting bracket, mounting hardware</li> </ul>	BEF-KHS-IS12G6	2086865
0,0	<ul> <li>Description: Mounting bracket for wall mounting</li> <li>Material: Stainless steel</li> <li>Details: Stainless steel</li> <li>Items supplied: Mounting hardware included</li> <li>Suitable for: W8, W8G, W8 Laser, W8 Inox, G6, G6 Inox, W100 Laser, W100-2, KTM Core, KTM Prime, CSM, LUTM, W4S</li> </ul>	BEF-W100-A	5311520
	<ul> <li>Material: Stainless steel</li> <li>Details: Stainless steel (1.4301)</li> <li>Suitable for: W4S, W4S</li> </ul>	BEF-WN-G6	2062909
6	<ul> <li>Description: Plate N11N for universal clamp bracket</li> <li>Material: Stainless steel</li> <li>Details: Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp)</li> <li>Items supplied: Universal clamp (5322627), mounting hardware</li> <li>Usable for: DeltaPac, Glare, WTD20E</li> </ul>	BEF-KHS-N11N	2071081
connectors a	nd cables		
	Connection type head A: Female connector, M8, 4-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PP Description: Sensor/actuator cable, unshielded Connection systems: Flying leads Note: This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid & hydrogen peroxide (H2O2) Application: Hygienic and washdown zones, Drag chain operation	DOL-0804-G05MRN	6058511
•	Connection type head A: Female connector, M8, 4-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Connection systems: Flying leads Note: 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) Application: Hygienic and washdown zones	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

