



**GTB6-E4411V**

G6 Inox

**PHOTOELECTRIC SENSORS**

**SICK**  
Sensor Intelligence.



Illustration may differ



## Ordering information

| Type        | Part no. |
|-------------|----------|
| GTB6-E4411V | 1084094  |

Other models and accessories → [www.sick.com/G6\\_Inox](http://www.sick.com/G6_Inox)

## Detailed technical data

### Features

|                                        |                                                        |
|----------------------------------------|--------------------------------------------------------|
| <b>Sensor/ detection principle</b>     | Photoelectric proximity sensor, Background suppression |
| <b>Dimensions (W x H x D)</b>          | 15 mm x 44 mm x 22 mm                                  |
| <b>Housing design (light emission)</b> | Rectangular                                            |
| <b>Sensing range max.</b>              | 5 mm ... 250 mm <sup>1)</sup>                          |
| <b>Sensing range</b>                   | 35 mm ... 140 mm                                       |
| <b>Type of light</b>                   | Visible red light                                      |
| <b>Light source</b>                    | PinPoint LED <sup>2)</sup>                             |
| <b>Light spot size (distance)</b>      | Ø 6 mm (100 mm)                                        |
| <b>Wave length</b>                     | 650 nm                                                 |
| <b>Adjustment</b>                      | Mechanical spindle, 5 turns                            |

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

<sup>2)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C.

### Mechanics/electronics

|                          |                                   |
|--------------------------|-----------------------------------|
| <b>Supply voltage</b>    | 10 V DC ... 30 V DC <sup>1)</sup> |
| <b>Ripple</b>            | ± 10 % <sup>2)</sup>              |
| <b>Power consumption</b> | ≤ 30 mA <sup>3)</sup>             |

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

<sup>2)</sup> May not exceed or fall below U<sub>V</sub> tolerances.

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

<sup>4)</sup> At U<sub>V</sub> > 24 V, I<sub>A</sub> max. = 50 mA.

<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>10)</sup> According to ISO 20653:2013-03.

<sup>11)</sup> Temperature stability following adjustment +/-10 °C.

|                                                    |                                                       |
|----------------------------------------------------|-------------------------------------------------------|
| <b>Switching output</b>                            | NPN                                                   |
| <b>Output function</b>                             | Complementary switching output                        |
| <b>Switching mode</b>                              | Light/dark switching                                  |
| <b>Signal voltage NPN HIGH/LOW</b>                 | Approx. $V_S / \leq 3 \text{ V}$                      |
| <b>Output current <math>I_{\text{max.}}</math></b> | $\leq 100 \text{ mA}$ <sup>4)</sup>                   |
| <b>Response time</b>                               | $< 1.25 \text{ ms}$ <sup>5)</sup>                     |
| <b>Switching frequency</b>                         | $\pm 500 \text{ Hz}$ <sup>6)</sup>                    |
| <b>Connection type</b>                             | Connector M8, 4-pin                                   |
| <b>Circuit protection</b>                          | A <sup>7)</sup><br>B <sup>8)</sup><br>D <sup>9)</sup> |
| <b>Protection class</b>                            | III                                                   |
| <b>Weight</b>                                      | 40 g                                                  |
| <b>Housing material</b>                            | Stainless steel, Stainless steel V4A (1.4404, 316L)   |
| <b>Optics material</b>                             | Plastic, PMMA                                         |
| <b>Enclosure rating</b>                            | IP67<br>IP69K <sup>10)</sup>                          |
| <b>Ambient operating temperature</b>               | $-25 \text{ °C} \dots +55 \text{ °C}$ <sup>11)</sup>  |
| <b>Ambient storage temperature</b>                 | $-30 \text{ °C} \dots +75 \text{ °C}$                 |
| <b>UL File No.</b>                                 | NRKH.E348498 & NRKH7.E348498                          |

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

<sup>2)</sup> May not exceed or fall below  $U_V$  tolerances.

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

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

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

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

<sup>7)</sup> A =  $V_S$  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>10)</sup> According to ISO 20653:2013-03.

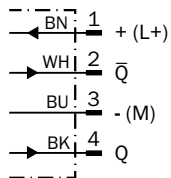
<sup>11)</sup> Temperature stability following adjustment  $\pm 10 \text{ °C}$ .

## Classifications

|                       |          |
|-----------------------|----------|
| <b>ECI@ss 5.0</b>     | 27270904 |
| <b>ECI@ss 5.1.4</b>   | 27270904 |
| <b>ECI@ss 6.0</b>     | 27270904 |
| <b>ECI@ss 6.2</b>     | 27270904 |
| <b>ECI@ss 7.0</b>     | 27270904 |
| <b>ECI@ss 8.0</b>     | 27270904 |
| <b>ECI@ss 8.1</b>     | 27270904 |
| <b>ECI@ss 9.0</b>     | 27270904 |
| <b>ETIM 5.0</b>       | EC002719 |
| <b>ETIM 6.0</b>       | EC002719 |
| <b>UNSPSC 16.0901</b> | 39121528 |

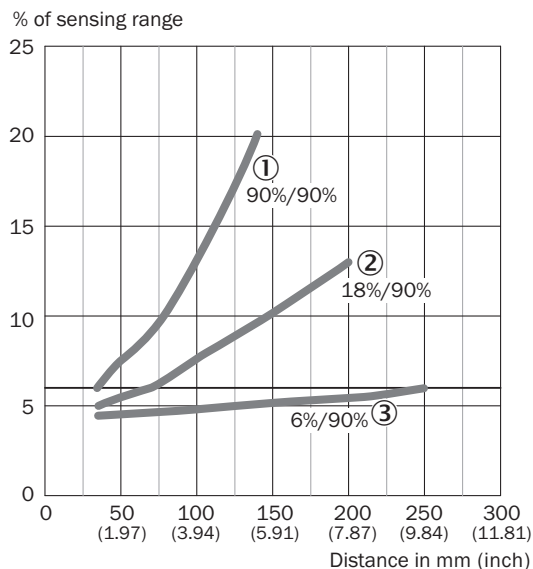
## Connection diagram

Cd-084



## Characteristic curve

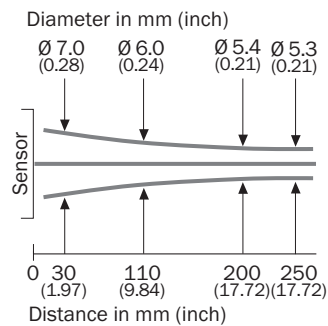
GTB6 Inox, Red, Standard



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

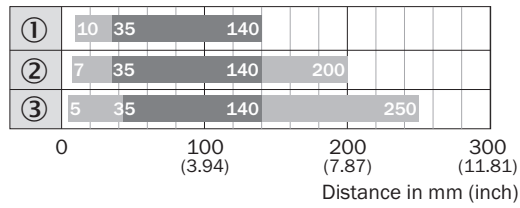
## Light spot size

GTB6 Inox, Red, Standard



## Sensing range diagram

GTB6 Inox, Red, Standard

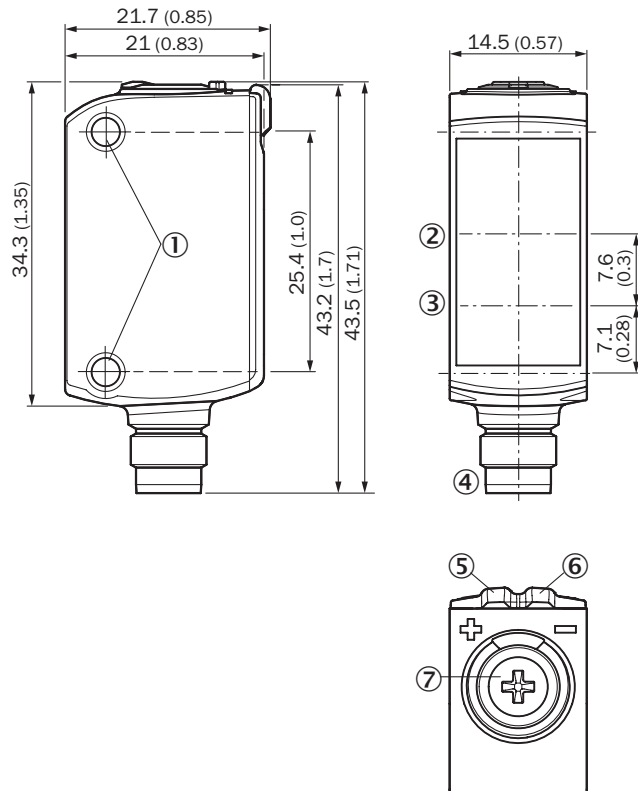


■ Sensing range                      ■ Sensing range max.

- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18 % remission
- ③ 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\\_Inox](http://www.sick.com/G6_Inox)

|                                                                                   | Brief description                                                                                                                                                                                                                  | Type         | Part no. |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|
| Universal bar clamp systems                                                       |                                                                                                                                                                                                                                    |              |          |
|  | Clamp bar to fix G6 sensors on rods of 10 mm, clamp-on design up to 4 mm wall thickness, aluminum (clamp bar), stainless steel (bracket), clamp bar for 10 mm rod mounting and clamp function, mounting bracket, mounting hardware | BEF-KHS-ISG6 | 2075080  |
| Mounting brackets and plates                                                      |                                                                                                                                                                                                                                    |              |          |
|  |                                                                                                                                                                                                                                    | BEF-WN-G6    | 2062909  |

## 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](http://www.sick.com)