



GTB6-E2411V

G6 Inox

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|-------------|----------|
| GTB6-E2411V | 1084090 |

Other models and accessories → www.sick.com/G6_Inox

Detailed technical data

Features

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

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

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

Mechanics/electronics

| | |
|-----------------------|-----------------------------------|
| Supply voltage | 10 V DC ... 30 V DC ¹⁾ |
| Ripple | ± 10 % ²⁾ |

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⁾ Do not bend below 0 °C.

⁸⁾ A = V_S connections reverse-polarity protected.

⁹⁾ B = inputs and output reverse-polarity protected.

¹⁰⁾ D = outputs overcurrent and short-circuit protected.

¹¹⁾ According to ISO 20653:2013-03.

¹²⁾ Temperature stability following adjustment +/-10 °C.

| | |
|---|--|
| Power consumption | ≤ 30 mA ³⁾ |
| Switching output | NPN |
| Output function | Complementary switching output |
| Switching mode | Light/dark switching |
| Signal voltage NPN HIGH/LOW | Approx. $V_S / \leq 3 \text{ V}$ |
| Output current I_{max} | ≤ 100 mA ⁴⁾ |
| Response time | < 1.25 ms ⁵⁾ |
| Switching frequency | ± 500 Hz ⁶⁾ |
| Connection type | Cable, 4-wire, 2 m ⁷⁾ |
| Cable material | PVC |
| Conductor cross-section | 0.14 mm ² |
| Circuit protection | A ⁸⁾ B ⁹⁾ D ¹⁰⁾ |
| Protection class | III |
| Weight | 70 g |
| Housing material | Stainless steel, Stainless steel V4A (1.4404, 316L) |
| Optics material | Plastic, PMMA |
| Enclosure rating | IP67 IP69K ¹¹⁾ |
| Ambient operating temperature | -25 °C ... +55 °C ¹²⁾ |
| Ambient storage temperature | -30 °C ... +75 °C |
| 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) Do not bend below 0 °C.

8) A = V_S connections reverse-polarity protected.

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

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

11) According to ISO 20653:2013-03.

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

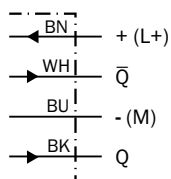
Classifications

| | |
|---------------------|----------|
| ECl@ss 5.0 | 27270904 |
| ECl@ss 5.1.4 | 27270904 |
| ECl@ss 6.0 | 27270904 |
| ECl@ss 6.2 | 27270904 |
| ECl@ss 7.0 | 27270904 |
| ECl@ss 8.0 | 27270904 |
| ECl@ss 8.1 | 27270904 |
| ECl@ss 9.0 | 27270904 |

| | |
|-----------------------|----------|
| ETIM 5.0 | EC002719 |
| ETIM 6.0 | EC002719 |
| UNSPSC 16.0901 | 39121528 |

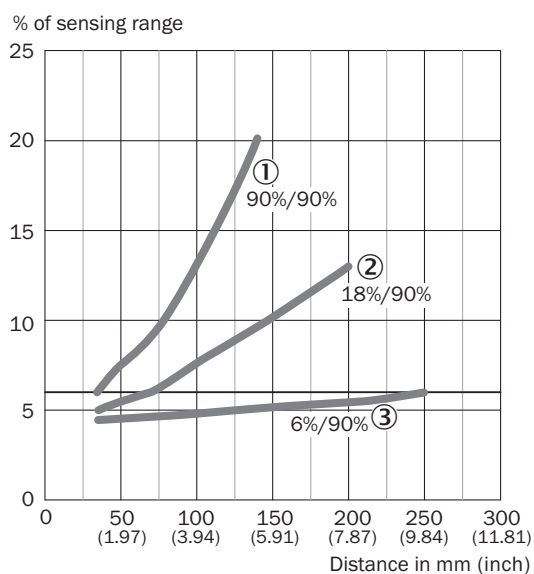
Connection diagram

Cd-094



Characteristic curve

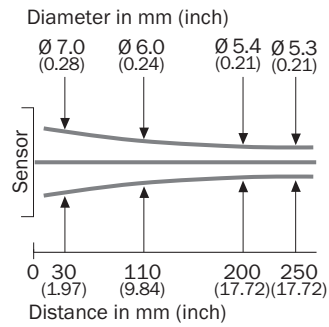
GTB6 Inox, Red, Standard



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

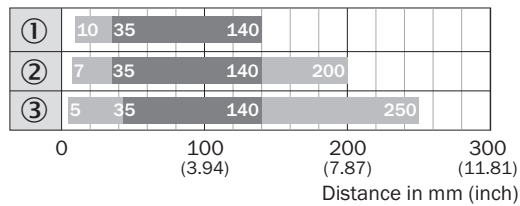
Light spot size

GTB6 Inox, Red, Standard



Sensing range diagram

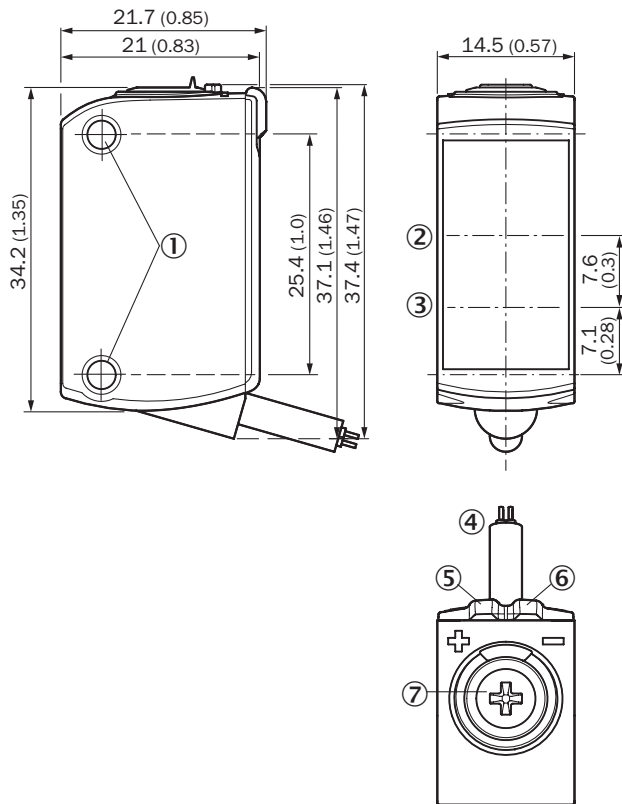
GTB6 Inox, Red, Standard



- Sensing range
- Sensing range max.
- ① Sensing range on black, 6% remission
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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_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 |

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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.”

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