

Photoelectric proximity switch
with visible red light
Operating instructions

Safety notes

- Not a safety component in accordance with EU Machinery Directive.
- Read the operating instructions before commissioning.
- Connection, mounting, and setting is only to be performed by trained specialists.
- UL: Only for use in applications in accordance with NFPA 79. Adapters listed by UL with connection cables are available. Enclosure type 1.
- When commissioning, protect the device from moisture and contamination.

Correct use

The WTB2S-2 is a photoelectric proximity sensor with background suppression for the optical, non-contact detection of objects, animals and persons. The sender and receiver are integrated into a single housing unit. The light beam output by the sender is reflected by the object to be detected. The receiver evaluates the reflected light.

Starting operation

1 Check the application conditions such as the scanning distance and the reflectivity of the objects being scanned and the background and compare it with the characteristic curve in the diagram (x = sensing distance, y = transition area between the sensing distance set and safe background suppression). Remission: 6% = black, 18% = gray, 90% = white (referring to standard white as per DIN 5033).

2 Maintain the movement direction of the object in relation to the scanner.

Only for connector versions: Plug in the cable socket without current applied and screw it tight.

Only for versions with connecting cable: The following connections apply: brn = brown, blu = blue, blk = black, wht = white.

Apply the operating voltage to the proximity sensor.

Adjustment of the sensing range position the object direct light spot onto the object.

Visible red emitted light spot recognizable on the object.

Increase the sensing range until the LED indication lights up.

Recommendation: Set the sensing distance with a 15% safety supplement of the sensing distance.

Background is not detected: setting is completed.

Background is detected: background influence too strong. Check setting and application.

Maintenance

SICK light barriers are maintenance-free. We recommend doing the following regularly:

- Clean the external lens surfaces.
- Check the screw connections and plug-in connections.

No modifications may be made to devices.

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WTB2S-2 Potentiometer

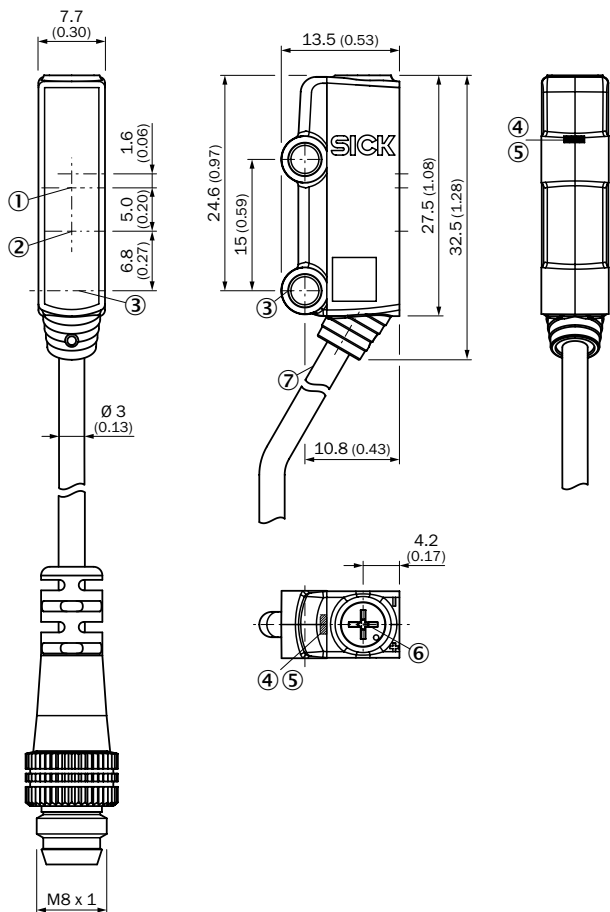
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Niederland Phone +31 (0)30 229 25 44	

SICK AG, Erwin-Sick-Strasse 1, D-79183 Waldkirch

Please find detailed addresses and additional representatives and agencies in all major industrial nations at www.sick.com

BE-1043

A WTB2S-2



- ① Optical axis, receiver / Optikachse, Empfänger
- ② Optical axis, sender / Optikachse, Sender
- ③ Middle axis fixing hole \varnothing 3.2 mm (0.13) / Mittelachse Montagebohrung \varnothing 3,2 mm
- ④ Status indicator LED green: power on / Anzeige-LED grün: Betriebsspannung aktiv
- ⑤ LED indicator yellow: status of received light beam / Anzeige-LED gelb: Status Lichtempfang
- ⑥ Potentiometer / Potentiometer
- ⑦ Connector / Anschluss

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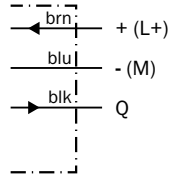
欲了解更多代表机构和代理商信息，请登录 www.sick.com。如有更改，不另行通知。对所给出的产品特性和技术参数的正确性不予保证。

その他の営業所は www.sick.com よりご覧ください。予告なしに変更されることがあります。記載されている製品機能および技術データは保証を明示するものではありません。



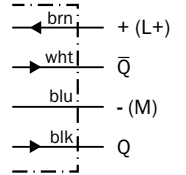
B WTB2S-2P / N13xx

WTB2S-2F / E13xx



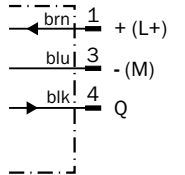
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WTB2S-2F / E11xx



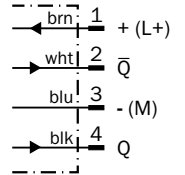
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WTB2S-2F / E31xx

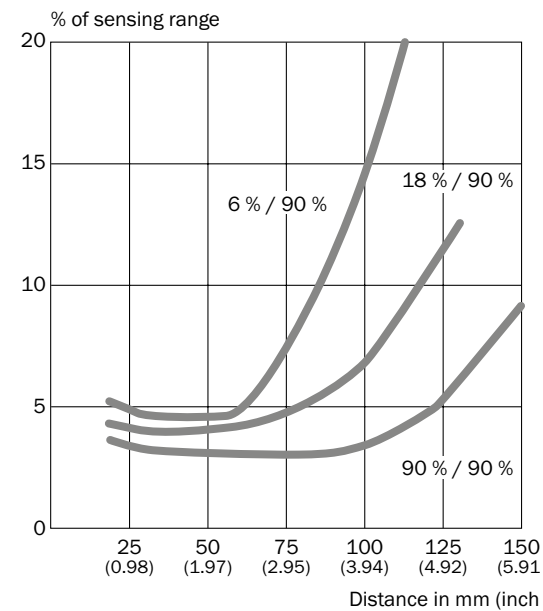


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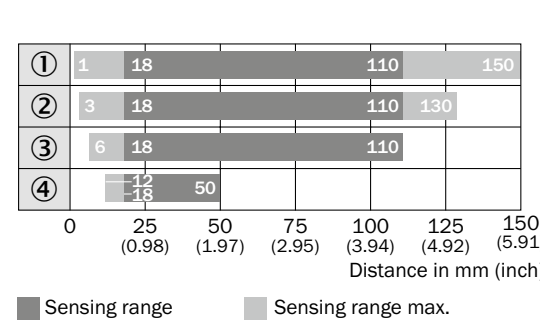
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1a

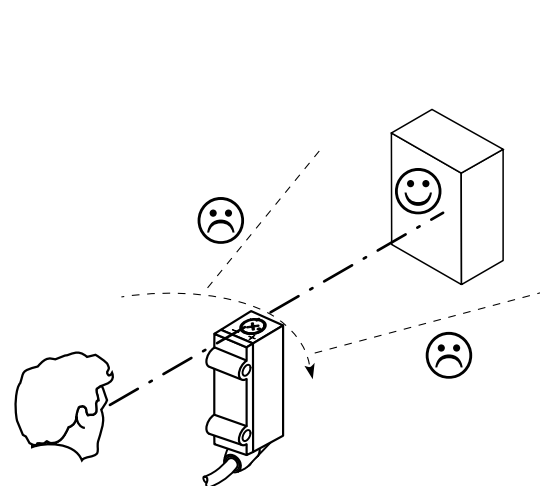


1b

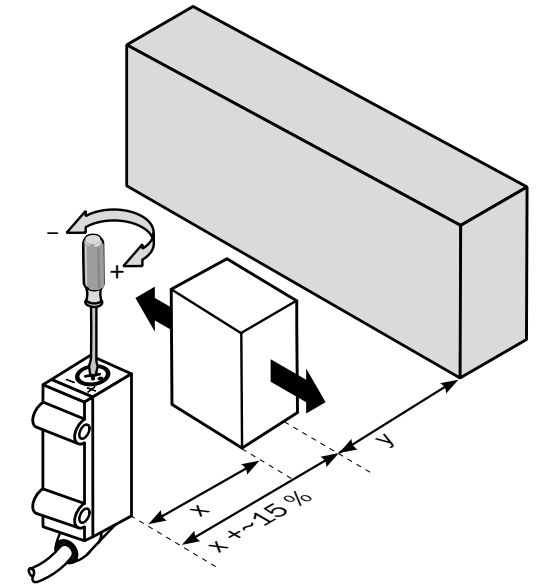


- ① Sensing range on white, 90% remission
- ② Sensing range on gray, 18% remission
- ③ Sensing range on black, 6% remission
- ④ Sensing range on ultra black, 1% remission

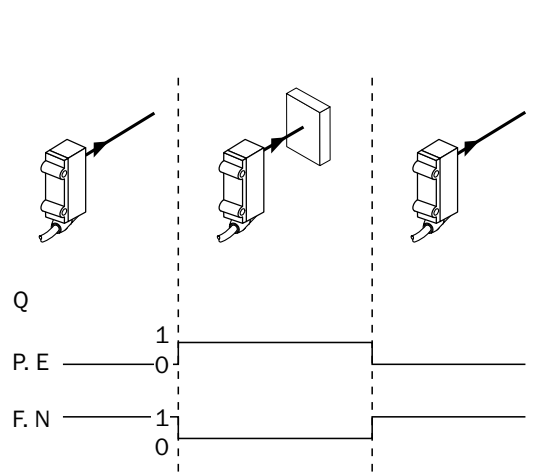
2a



2b



2c



Wartung

SICK-Lichtschranken sind wartungsfrei. Wir empfehlen, in regelmäßigen Abständen: - die optischen Grenzflächen zu reinigen. - Verschraubungen und Steckverbindungen zu überprüfen.

Veränderungen an Geräten dürfen nicht vorgenommen werden.

