

ENGLISH

Photoelectric proximity sensor
with background suppression
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: The device shall be supplied from an isolating transformer having a secondary overcurrent protective device that complies with UL 248 to be installed in the field rated either:
a) max 5 amps for voltages 0 ~ 20 V (0 ~ 28.3 V peak), or
b) 100 / Vp for voltages of 20 ~ 30 V (28.3 ~ 42.4 V peak).
Alternatively, they can be supplied from a Class 2 power supply.
UL Environmental Rating: Enclosure type 1.
- When commissioning, protect the device from moisture and contamination.

Correct use

The WTB2S-2 is a photoelectric sensor for the optical, noncontact detection of objects.

Starting operation

1 The sensing ranges for the WTB2S-2xxx0 pushbuttons are assigned permanent settings during production. No further settings need to be made. Check the application conditions such as size and reflectance capacity of the object as well as background influences and compare with the switching distance diagram of the WTB2S-2 type being used.

2 WTB2S-2Fxxxx and WTB2S-2Exxxx

D: dark-switching, output (Q) switches off when an object is present in the sensing range.

WTB2S-2P13xx and WTB2S-2P31xx
WTB2S-2N13xx and WTB2S-2N31xx

L: light-switching, Output (Q) switches on when an object is present in the sensing range.

WTB2S-2P11xx and WTB2S-2P32xx
WTB2S-2N11xx and WTB2S-2N32xx

ANT: complementary outputs Q and Q̄.

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.

DEUTSCH

Reflexions-Lichttaster
mit Hintergrundausblendung
Betriebsanleitung

Sicherheitshinweise

- Kein Sicherheitsbauteil gemäß EU-Maschinenrichtlinie.
- Vor der Inbetriebnahme die Betriebsanleitung lesen.
- Anschluss, Montage und Einstellung nur durch Fachpersonal.
- UL: The device shall be supplied from an isolating transformer having a secondary overcurrent protective device that complies with UL 248 to be installed in the field rated either:
a) max 5 amps for voltages 0 ~ 20 V (0 ~ 28.3 V peak), or
b) 100 / Vp for voltages of 20 ~ 30 V (28.3 ~ 42.4 V peak).
Alternatively, they can be supplied from a Class 2 power supply.
UL Environmental Rating: Enclosure type 1.
- Gerät bei Inbetriebnahme vor Feuchte und Verunreinigung schützen.

Bestimmungsgemäße Verwendung

Die optoelektronischen Sensoren WTB2S-2 werden zum optischen, berührungslosen Erfassen von Objekten eingesetzt.

Inbetriebnahme

1 Die Taster WTB2S-2xxx0 verfügen über produktionsseitig fest eingestellte Tastweiten. Es ist keine Einstellung erforderlich. Einsatzbedingungen wie Größe und Remissionsvermögen des Objektes sowie Hintergrundeinflüsse überprüfen und mit dem Schaltabstandsdiagramm des verwendeten WTB2S-2 Typs vergleichen.

2 WTB2S-2Fxxxx und WTB2S-2Exxxx

D: dunkelschaltend, Ausgang (Q) schaltet aus, wenn sich ein Objekt im Tastbereich befindet.

WTB2S-2P13xx und WTB2S-2P31xx
WTB2S-2N13xx und WTB2S-2N31xx

L: hellerschaltend, Ausgang (Q) schaltet ein, wenn sich ein Objekt im Tastbereich befindet.

WTB2S-2P11xx und WTB2S-2P32xx
WTB2S-2N11xx und WTB2S-2N32xx
ANT: Antivalente Ausgänge Q und Q̄

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.



WTB2S-2

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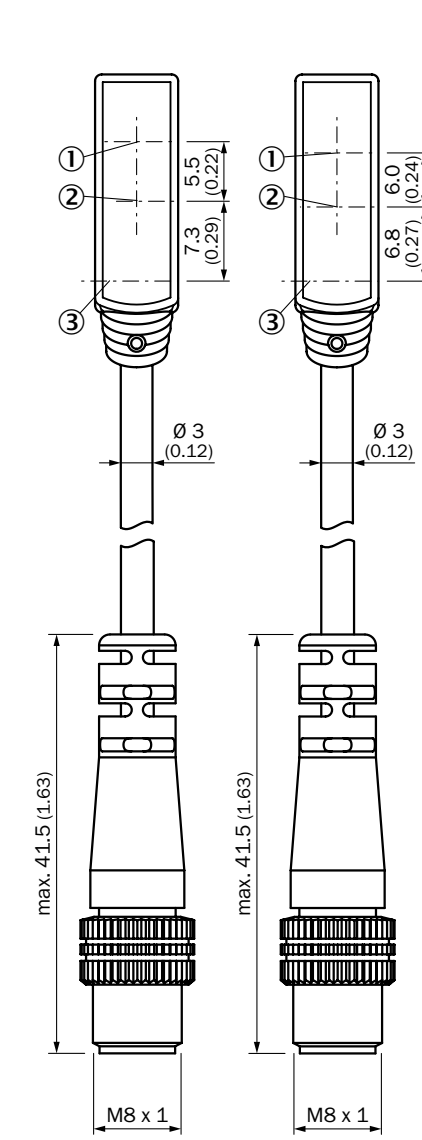
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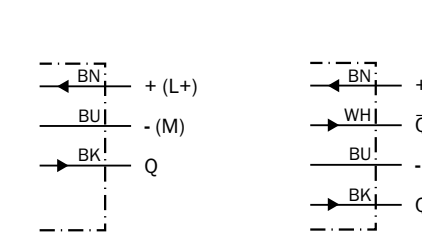
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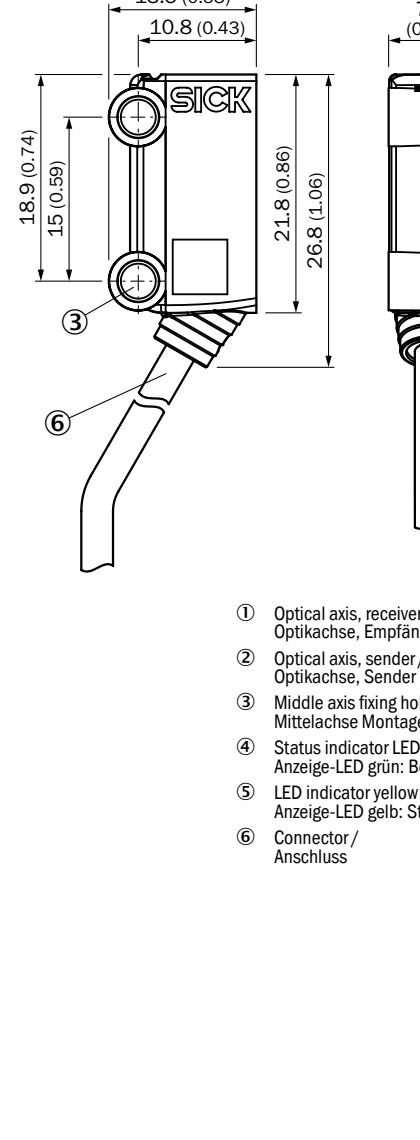
WTB2S-2Xxx10
WTB2S-2Xxx30



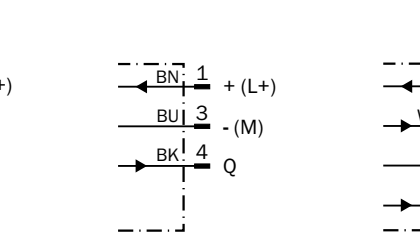
WTB2S-2P / N13xx
WTB2S-2F / E13xx



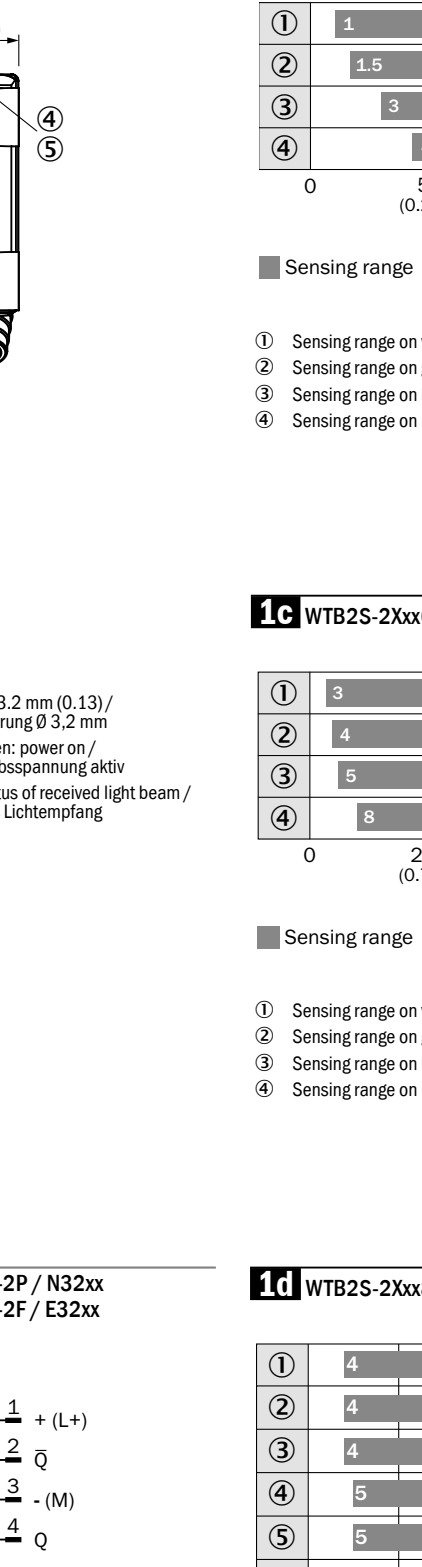
WTB2S-2Xxx60



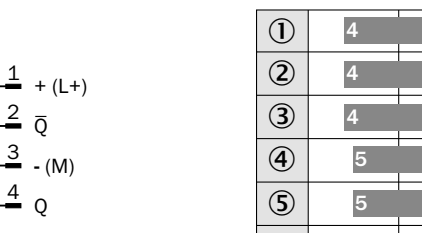
WTB2S-2P / N11xx
WTB2S-2F / E11xx



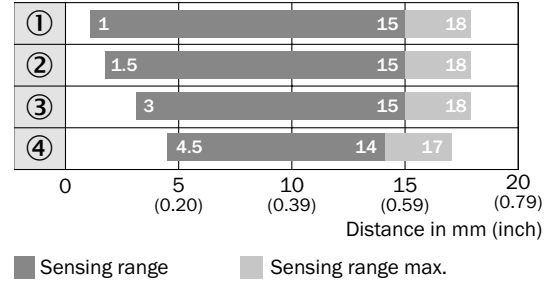
WTB2S-2P / N31xx
WTB2S-2F / E31xx



WTB2S-2P / N32xx
WTB2S-2F / E32xx

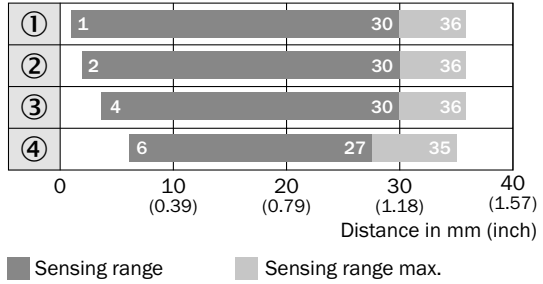


1a WTB2S-2Xxx10



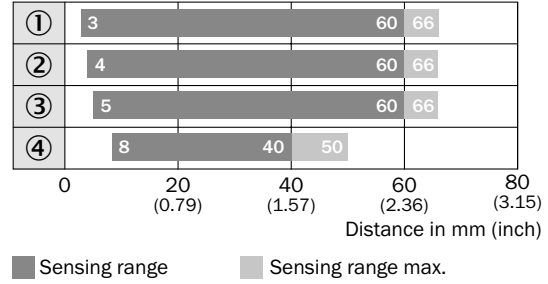
- Sensing range on white, 90 % remission
- Sensing range on gray, 18 % remission
- Sensing range on black, 6 % remission
- Sensing range on ultra black, 1 % remission

1b WTB2S-2Xxx30



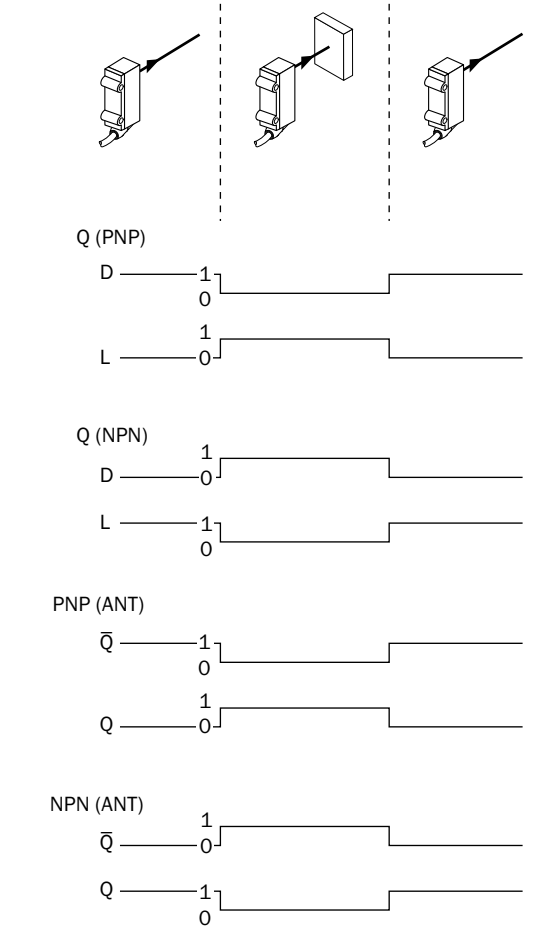
- Sensing range on white, 90 % remission
- Sensing range on gray, 18 % remission
- Sensing range on black, 6 % remission
- Sensing range on ultra black, 1 % remission

1c WTB2S-2Xxx60

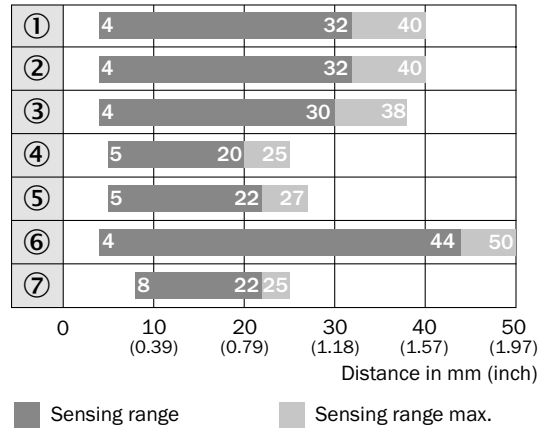


- Sensing range on white, 90 % remission
- Sensing range on gray, 18 % remission
- Sensing range on black, 6 % remission
- Sensing range on ultra black, 1 % remission

2



1d WTB2S-2Xxx80



- Sensing range on white, 90% remission
- Sensing range on gray, 18% remission
- Sensing range on black, 6% remission
- Sensing range on ultra black, 1% remission
- Sensing range on blue solar wafer with anti-reflection layer, approx. 1 % remission
- Sensing range on metallic, smooth surface
- Sensing range on transparent, flat objects such as display without close up background

