

ENGLISH

Through-beam Photoelectric Sensor with visible redlight Operating Instructions

Safety notes

- Read the operating instructions before commissioning.
Connection, mounting, and setting may only be performed by trained specialists.
Not a safety component in accordance with the EU Machinery Directive.
UL: Only for use in applications in accordance with NFPA 79.
When commissioning, protect the device from moisture and contamination.
These operating instructions contain information required during the life cycle of the sensor.

Proper Use

The WSE250-2 through-beam photoelectric sensor is an optoelectronic sensor, that operates using a transmission unit (WS) and reception unit (WE). It is used for optical, non-contact detection of objects, animals, and people.

Starting Operation

1 Only WE250-2P/-F (PNP, load -> M)
L: light-switching, when light path is free, output (Q) HIGH (WE250-2P/-2F)
D: dark-switching, when light path is interrupted, output (Q) HIGH (WE250-2P only)
Only WE250-2N (NPN, load -> L)
L: light-switching, when light path is free, output (Q) LOW
D: dark-switching, when light path is interrupted, output (Q) LOW
Select desired operating mode externally and connect as per connection diagram B

Control cable L/D: +Vs: light-switching, 0 V: dark-switching (NC)
Only WE250-2R
L: light-switching, when light path is free, relay is active (I)
With following connectors only:
Equipment plug horizontally (H) and vertically (V) adjustable. Lock with slider. Connect and secure cable receptacle tension-free.
Only for versions with connecting cable:
The following apply for connection in B: brn = brown, blu = blue, blk = black, gra = gray, wht = white.
Connect cables.
Mount WS and WE opposite each other and align roughly. Adjust for sensing range (see technical data at end of these operating instructions and see diagram; x = sensing range, y = operating reserve, ys = sensing threshold).

3 Connect WS and WE to operating voltage (see type label). Status indicator (WS) lights up.
Adjustment of light reception:
Determine on/off points of signal strength indicator (WE) by swivelling photoelectric sensor horizontally and vertically.
Mount WS and WE opposite each other and align roughly. Adjust for sensing range (see technical data at end of these operating instructions and see diagram; x = sensing range, y = operating reserve, ys = sensing threshold).
Object detection check: Move object into beam; signal strength indicator (WE) should go out. It should light up again when object is removed.

4 Only WSE250-2R, WS250-2U, WE250-2R
The WSE250-2 through-beam photoelectric sensor meets the interference suppression requirements (EMC) for industrialuse (interference suppression class A). When used in residential areas it can cause interference.

Maintenance

SICK photoelectric sensors do not require any maintenance. We recommend that you clean the external lens surfaces and check the screw connections and plug-in connections at regular intervals.
Modifications of devices may not be made.

SICK

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WSE250-2 WS250-2 WE250-2

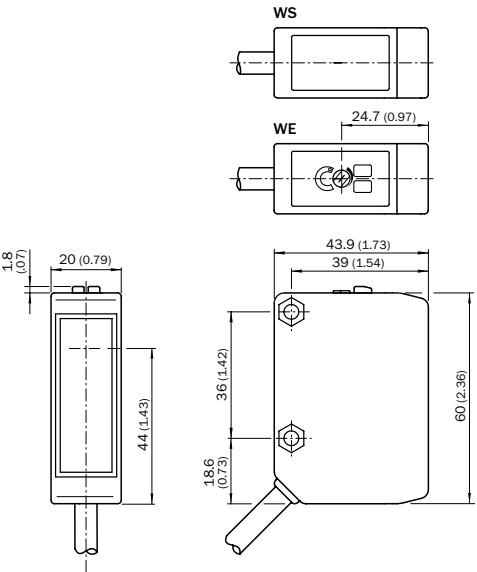
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Chile Phone +56 2 2274 7430
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Israel Phone +972-4-6881000
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Netherlands Phone +31 (0)30 229 25 44
New Zealand Phone +64 9 415 0459
Norway Phone +47 67 81 50 00
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Singapore Phone +65 6744 3732
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Taiwan Phone +886 2 2375-6288
Thailand Phone +66 2645 0009
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United Arab Emirates Phone +971 (0) 4 88 65 878
USA/Mexico Phone +1 (952) 941-6780
Vietnam Phone +84 8 62920204

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

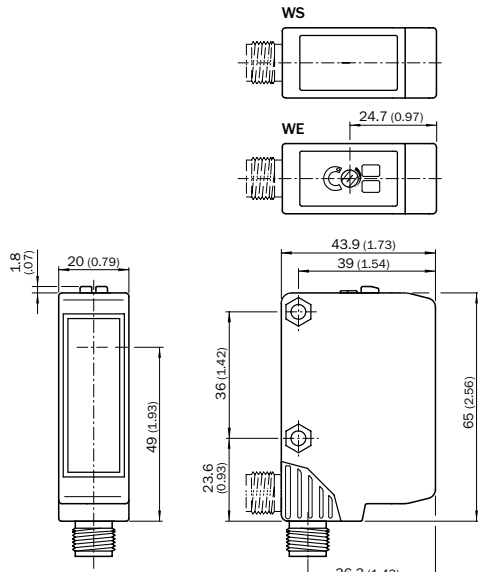
SICK AG, Erwin-Sick-Strasse 1, D-79183 Waldkirch



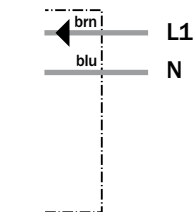
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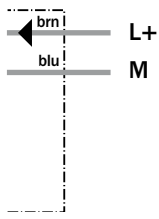
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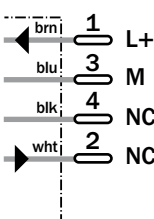
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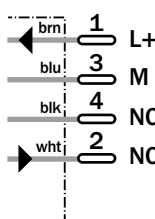
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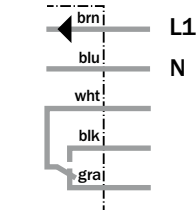
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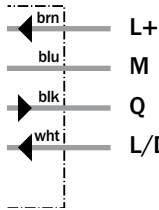
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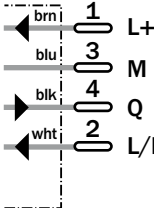
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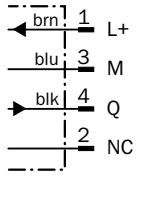
WE250-2P1131, WE250-2P1231, WE250-2N1131, WE250-2N1231



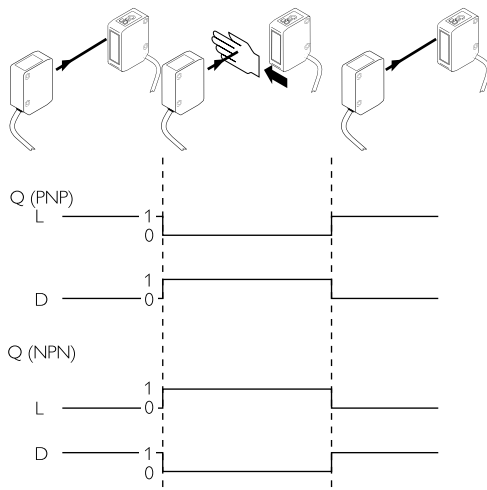
WE250-2P2431, WE250-2N2431



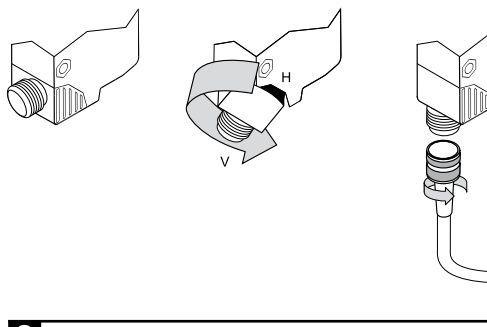
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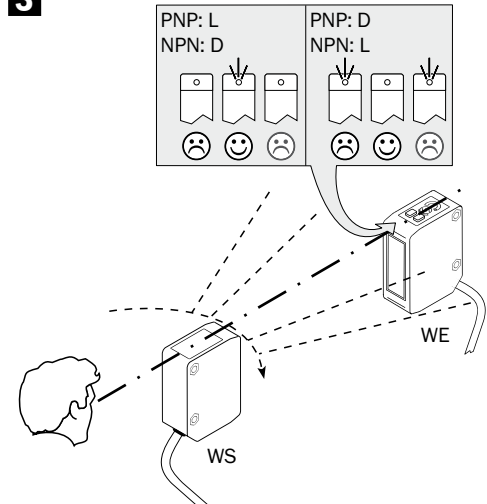
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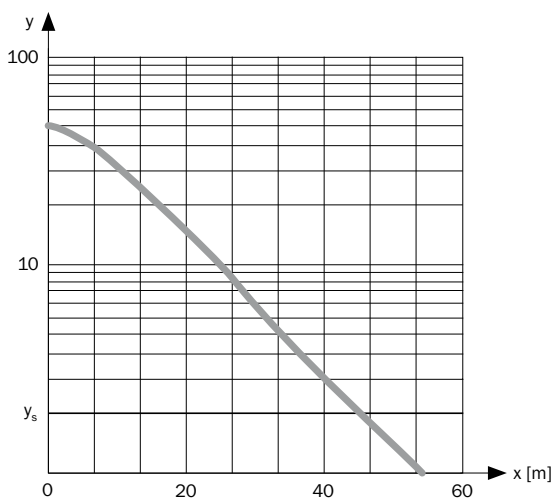
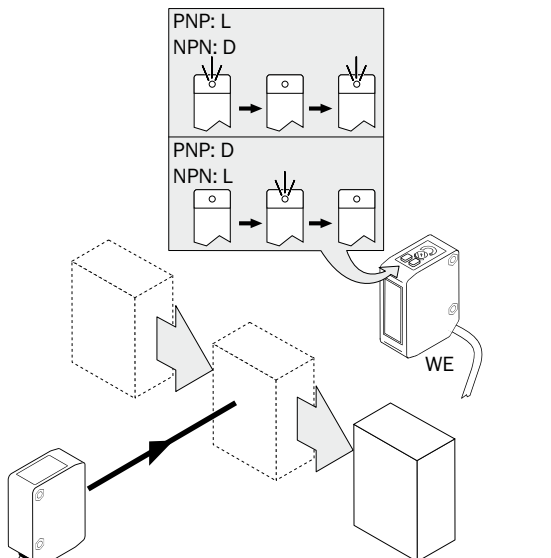
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DEUTSCH

Einweg-Lichtschranke mit sichtbarem Rotlicht Betriebsanleitung

Sicherheitshinweise

- Vor der Inbetriebnahme die Betriebsanleitung lesen.
Anschluss, Montage und Einstellung nur durch Fachpersonal.
Kein Sicherheitsbauteil gemäß EU-Maschinenrichtlinie.
UL: Nur zur Verwendung in Anwendungen gemäß NFPA 79.
Gerät bei Inbetriebnahme vor Feuchte und Verunreinigung schützen.
Diese Betriebsanleitung enthält Informationen, die während des Lebenszyklus des Sensors notwendig sind.

Bestimmungsgemäße Verwendung

Die Einweg-Lichtschranke WSE250-2 ist ein optoelektronischer Sensor, der mit einer Sendeeinheit (WS) und Empfangseinheit (WE) arbeitet. Sie wird zum optischen, berührungslosen Erfassen von Sachen, Tieren und Personen eingesetzt.

Inbetriebnahme

1 Nur WE250-2P/-F (PNP, Last -> M)
L: hellerschaltend, bei Lichtweg frei, Ausgang (Q) HIGH (WE250-2P/-2F)
D: dunkelschaltend, bei Lichtweg-Unterbrechung, Ausgang (Q) HIGH (nur WE250-2P)
Nur WE250-2N (NPN, Last -> L)
L: hellerschaltend, bei Lichtweg frei, Ausgang (Q) LOW
D: dunkelschaltend, bei Lichtweg-Unterbrechung, Ausgang (Q) LOW
Gewünschte Betriebsart extern wählen und laut Anschlusschema B anschließen.
Steuerleitung L/D: +U; hellerschaltend, 0 V: dunkelschaltend (NC)
Nur WE250-2R
L: hellerschaltend, bei Lichtweg frei Relais aktiv (I)
2 Nur bei den Steckerversionen:
Gerätestecker nach horizontal (H) und vertikal (V) schwenkbar.
Nur bei den Versionen mit Anschlussleitung:
Für Anschluss in B gilt: brn = braun, blu = blau, blk = schwarz, gra = grau, wht = weiß.
Leitungen anschließen.

3 WS und WE an geeignete Halter (z. B. SICK-Haltewinkel) gegenüberliegend montieren und grob ausrichten.
WS und WE an Betriebsspannung legen (s. Typenaufdruck).
Kontrolle Objekterfassung:
Die Einweg-Lichtschranke WSE250-2 erfüllt die Funkschutzbestimmungen für den industriellen Bereich (Funkschutzklasse A).
Wartung
SICK-Lichtschranken sind wartungsfrei.
Veränderungen an Geräten dürfen nicht vorgenommen werden.

Table with technical specifications in multiple languages: English, French, Portuguese, Spanish, German, Chinese, and Japanese. Columns include Operating range, Light spot diameter, Supply voltage, Output current, Max. switching frequency, Response time, Enclosure rating, Protection class, Ambient operating temperature, Portata, Diameter punto luminoso, Tensione di alimentazione, Corrente di uscita, Sequenza segnali, Tempo di risposta, Tipo di protezione, Classe di protezione, Commutazioni di protezione, Temperatura ambiente circostante, Portata RW, Diametro punto luminoso/distanza, Tensione di alimentazione Uv, Corrente di uscita Imax, Sequenza segnali max., Tempo di risposta, Tipo di protezione (IEC 60529), Classe di protezione, Commutazioni di protezione, Temperatura ambiente circostante, and various electrical and safety parameters.

