

Photoelectric Proximity Sensor with foreground suppression Operating Instructions

Safety Specifications

- No safety component in accordance with EU machine guidelines.
- Read the operating instructions before starting operation.
- Connection, assembly, and settings only by competent technicians.
- 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:
 - max 5 amps for voltages 0 ~ 20 V (0 ~ 28.3 V peak), or
 - 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
- Protect the device against moisture and soiling when operating.

Proper Use

The WTF4S-3 photoelectric proximity sensor is an optoelectronic sensor and is used for optical, non-contact detection of objects, animals, and people.

Starting Operation

1 WTF4S-3Exxx and WTF4S-3Fxxx

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

WTF4S-3P1332 and WTF4S-3Px1xx

WTF4S-3N1332 and WTF4S-3Nx1xx

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

WTF4S-3P1131 and WTF4S-3N1131

WTF4S-3Px231 and WTF4S-3Nx231

ANT: Antivalent outputs Q and \bar{Q}

With following connectors only:

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, wht = white.

Connect cables.

2 Mount sensor using the threaded bush with M3 screws. Maintain direction in which object moves relative to sensor (VR = advance direction).

Connect photoelectric proximity sensor to operating voltage.

3 Setting sensing distance:

No object is required to adjust the sensor to the machine background. The light spot must be clearly visible on the machine background or on a background object within a height range not exceeding 100 mm. The yellow LED indicator lights up. Turn the potentiometer until the light goes out. Carefully turn back the potentiometer until the yellow LED indicator lights up. The sensor is now correctly adjusted and ready for operation.

Maintenance

SICK photoelectric sensors 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.

SICK

8015697.1E52 0122 COMAT

WTF4S-3 focussed Potentiometer

Australia Phone +61 (3) 9457 0600 1800 33 48 02	Netherlands Phone +31 (0) 30 229 25 44
New Zealand Phone +64 9 415 0459 0800 222 278 - tollfree	Poland Phone +47 67 81 50 00
Austria Phone +43 (0) 2236 62288-0	Romania Phone +40 356-17 11 20
Belgium/Luxembourg Phone +32 (0) 2 466 55 66	Russia Phone +7 495 283 09 90
Brazil Phone +55 11 3215-4900	Singapore Phone +65 6744 3732
Canada Phone +1 905.771.1444	Slovakia Phone +421 482 901 201
Czech Republic Phone +420 234 719 500	Slovenia Phone +386 591 78849
Chile Phone +56 (2) 2274 7430	South Africa Phone +27 10 060 0550
China Phone +86 20 2882 3600	South Korea Phone +82 2 786 6321/4
Denmark Phone +45 45 82 64 00	Spain Phone +34 93 480 31 00
Finland Phone +358-9-25 15 800	Sweden Phone +46 10 110 10 00
France Phone +33 1 64 62 35 00	Switzerland Phone +41 41 619 29 39
Germany Phone +49 (0) 2 11 53 010	Taiwan Phone +886-2-2375-6288
Greece Phone +30 210 6825100	Thailand Phone +66 2 645 0009
Hong Kong Phone +852 2153 6300	Turkey Phone +90 (216) 528 50 00
Hungary Phone +36 1 371 2680	United Arab Emirates Phone +971 (0) 4 88 65 878
India Phone +91-22-6119 8900	USA Phone +1 800.325.7425
Israel Phone +972 97110 11	Vietnam Phone +65 6744 3732
Italy Phone +39 02 27 43 41	
Japan Phone +81 3 5309 2112	
Malaysia Phone +603-8080 7425	
Mexico Phone +52 (472) 748 9451	
SICK AG, Erwin-Sick-Strasse 1, D-79183 Waldkirch Detailed addresses and further locations at www.sick.com	

More representatives and agencies at www.sick.com · Subject to change without notice · The specified product features and technical data do not represent any guarantee.

Weitere Niederlassungen finden Sie unter www.sick.com · Irrtümer und Änderungen vorbehalten · Angegebene Produkteigenschaften und technische Daten stellen keine Garantieerklärung dar.

Plus de représentations et d'agences à l'adresse www.sick.com · Sujet à modification sans préavis · Les caractéristiques de produit et techniques indiquées ne constituent pas de déclaration de garantie.

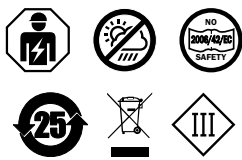
Para mais representantes e agências, consulte www.sick.com · Alterações poderão ser feitas sem prévio aviso · As características do produto e os dados técnicos apresentados não constituem declaração de garantia.

Altri rappresentanti ed agenzie si trovano su www.sick.com · Contenuti soggetti a modifiche senza preavviso · Le caratteristiche del prodotto e i dati tecnici non rappresentano una dichiarazione di garanzia.

Más representantes y agencias en www.sick.com · Sujeto a cambio sin previo aviso · Las características y los datos técnicos especificados no constituyen ninguna declaración de garantía.

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。



Reflexions-Lichttaster mit Vordergrundausblendung 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:
 - max 5 amps for voltages 0 ~ 20 V (0 ~ 28.3 V peak), or
 - 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 Verunreinigungen schützen.

Bestimmungsgemäße Verwendung

Der Reflexions-Lichttaster WTF4S-3 ist ein optoelektronischer Sensor und wird zum optischen, berührungslosen Erfassen von Sachen, Tieren und Personen eingesetzt.

Inbetriebnahme

1 WTF4S-3Exxx und WTF4S-3Fxxx

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

WTF4S-3P1332 und WTF4S-3Px1xx

WTF4S-3N1332 und WTF4S-3Nx1xx

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

WTF4S-3P1131 und WTF4S-3N1131

WTF4S-3Px231 und WTF4S-3Nx231

ANT: Antivalente Ausgänge Q und \bar{Q}

Nur bei den Steckversionen:

Leitungsdose spannungsfrei aufstecken und festschrauben.

Nur bei den Versionen mit Anschlussleitung:

Für Anschluss in **B** gilt: brn = braun, blu = blau, blk = schwarz,

wht = weiß.

Leitungen anschließen.

2 Sensor unter Verwendung der Gewindebuchsen mit M3-Schrauben montieren.

Bewegungsrichtung des Objektes relativ zum Taster einhalten (VR = Vorzugsrichtung).

Lichttaster an Betriebsspannung legen.

3 Einstellung der Tastweite:

Die Einstellung des Sensors erfolgt ohne Objekt auf den Hintergrund der Maschine. Der Lichtfleck muss eindeutig ganz auf dem Maschinenhintergrund bzw. einem Hintergrundobjekt in max. 100 mm zu sehen sein.

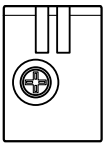
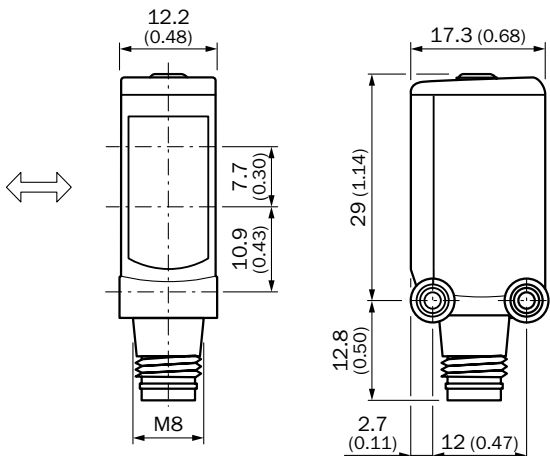
Leuchtet die gelbe Anzeige-LED, Potentiometer soweit aufdrehen bis sie erlischt. Potentiometer vorsichtig zurückdrehen, bis die gelbe Anzeige-LED aufleuchtet. Sensor ist jetzt richtig eingestellt und betriebsbereit.

Wartung

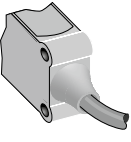
SICK-Lichttaster sind wartungsfrei. Wir empfehlen, in regelmäßigen Abständen

- die optischen Grenzflächen zu reinigen,
- Verschraubungen und Steckverbindungen zu überprüfen.

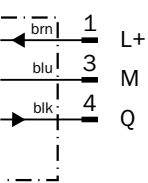
A



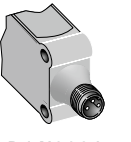
B WTF4S-3



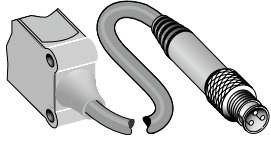
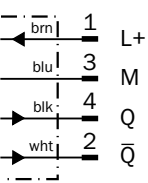
-P/-N1331 -F/-E1331



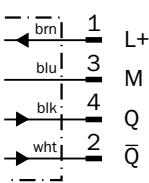
62 int49



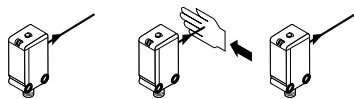
-P/-N2231



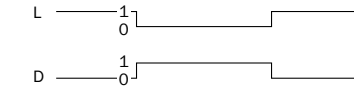
-P/-N3231



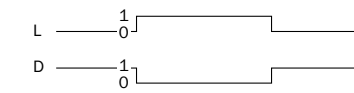
1



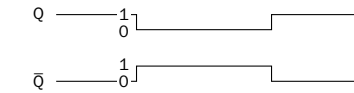
Q (PNP)



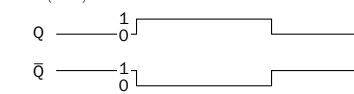
Q (NPN)



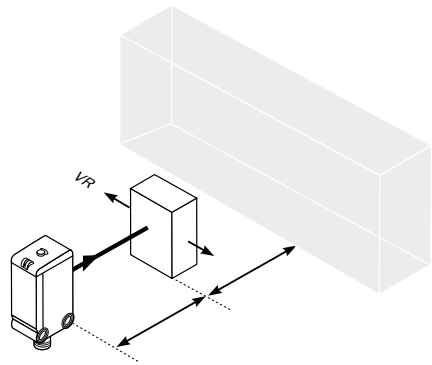
PNP (ANT)



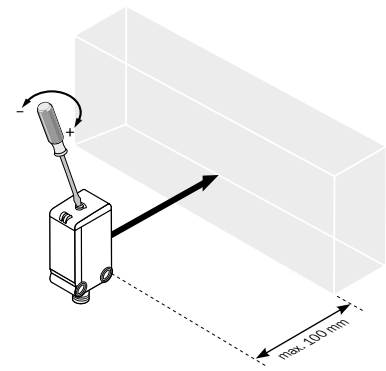
NPN (ANT)



2



3



WTF4S-3

SR sensing range ¹⁾	Reichweite RW ¹⁾	Portée RW ¹⁾	Alcance da luz RW ¹⁾	5 ... 100 mm
Light spot diameter/distance	Lichtfleckdurchmesser/Entfernung	Diamètre de la tache lumineuse/Distance	Diâmetro do ponto de luz	2,5 mm / 50 mm
Supply voltage V _s	Versorgungsspannung U _v	Tension d'alimentation U _v	Tensão de força U _v	10 ... 30 V DC ²⁾
Output current I _{max}	Ausgangsstrom I _{max}	Courant de sortie I _{max}	Corrente de saída I _{max}	100 mA
Signal sequence min.	Signalfolge min.	Fréquence mini	Sequência min. de sinais	1000/s
Response time	Ansprechzeit	Temps de réponse	Tempo de reação	500 ms
Enclosure rating	Schutzart	Type de protection	Tipo de proteção	IP 66, IP 67
Protection class	Schutzklasse	Classe de protection	Classe de proteção	⊕
Circuit protection ³⁾	Schutzschaltungen ³⁾	Circuits de protection ³⁾	Circuitos protetores ³⁾	A, B, C
Ambient operating temperature ⁴⁾	Betriebsumgebungstemperatur ⁴⁾	Température ambiante ⁴⁾	Temperatura ambiente de operação ⁴⁾	-40 ... +60 °C

¹⁾ Object 90 % reflection according to DIN 5033

²⁾ Limits

Residual ripple max. 5 V_s

Operation in short-circuit protected network: max 8 A

³⁾ A = V_s connections reverse polarity protected

B = Interference pulse suppression

C = Output Q and \bar{Q} short-circuit protected

⁴⁾ Do not bend cable below 0 °C

¹⁾ Objekt 90 % Remission nach DIN 5033

²⁾ Grenzwerte

Restwelligkeit max. 5 V_s

Betrieb im kurzschlussgeschützten Netz max. 8 A

³⁾ A = U_v-Anschlüsse verpolsicher

B = Störimpulsunterdrückung

C = Ausgang Q und \bar{Q} kurzschlussgeschützt

⁴⁾ Leitungen unter 0 °C nicht verformen

¹⁾ Objet Luminance de 90% selon DIN 5033

²⁾ Valeurs limites

Ondulation résiduelle maxi 5 V_s

Fonctionnement sous secteur protégé des courts-circuits à 8 A maxi

³⁾ A = Raccordements U_v protégés contre les inversions de polarité

B = Suppression des impulsions parasites

C = Sorties Q et \bar{Q} protégées contre les courts-circuits

⁴⁾ Ne pas déformer le conducteur au-dessous de 0 °C

¹⁾ Objeto: 90% de remissão segundo DIN 5033

²⁾ Valores limite/ondulação residual máx. 5 V_s

Operação em rede protegida contra curto-circuitos máx. 8 A

³⁾ A = Conexões U_v protegidas contra inversão de polos

B = Supressão de impulsos parasitas

C = Saída Q e \bar{Q} protegida contra curto-circuito

⁴⁾ Não dar forma ao condutor abaixo de 0 °C

WTF4S-3

Portata RW ¹⁾	Alcance RW ¹⁾	有效感距 RW ¹⁾	検出範囲 RW、最大 ¹⁾	5 ... 100 mm
Diámetro punto luminoso	Diámetro/distancia de mancha de luz	光点直径	スポット径 / 距離	2,5 mm / 50 mm
Tensione di alimentazione U _v	Tensión de alimentación U _v	电源电压	供給電圧 U _v	10 ... 30 V DC ²⁾
Corrente di uscita max. I _{max}	Corriente de salida I _{max}	输出电流 I _{max}	最大出力電流 I _{max}	100 mA
Sequenza segnali min.	Secuencia de señales min.i	信号流 min	切替順序 min.	1000/s
Tempo di risposta	Tempo de reacción	触发时间	応答時間	500 ms
Tipo di protezione	Tipo de protección	保护种类	保護等級	IP 66, IP 67
Classe di protezione	Protección clase	保护级别	保護クラス	⊕
Commutazioni di protezione ³⁾	Circuitos de protección ³⁾	保护电路 ³⁾	保護回路 ³⁾	A, B, C
Temperatura ambiente circostante ⁴⁾	Temperatura ambiente de servicio ⁴⁾	工作环境-温度 ⁴⁾	使用周囲温度 ⁴⁾	-40 ... +60 °C

¹⁾ Oggetto 90%, remissione sec. DIN 5033

²⁾ Valori limite ondulatione

Residua max. 5 V_s

Funzionamento in rete con protezione dai cortocircuiti max 8 A

³⁾ A = V_s-collegamenti con protezione contro inversione di poli

B = Soppressione impulsi di disturbo

C = Uscite Q e \bar{Q} a prova di corto circuito

⁴⁾ Non deformare il cavo a temperature sotto 0 °C.

¹⁾ Objeto 90% de remission en base a DIN 5033

²⁾ Valores limite

Ondulación residual max. 5 V_s

Servicio en red a prueba de cortocircuito máx 8 A

³⁾ A = Conexiones U_v a prueba de inversión de polaridad

B = Represión de impulso de interferencia

C = Salida Q and \bar{Q} protegida contra cortocircuito

⁴⁾ No deformar el conductor por debajo de 0 °C

¹⁾ 90 % 漫反射比物体按照 DIN 5033

²⁾ 极限值剩余波纹度 max. 5 V_{SS}

操作电流：在防短路

的网络里，最大8A

³⁾ A = U_v-接头防反接

B = 消除干扰脉冲

C = 输入输出防反接 (O/O)

⁴⁾ 0°C 以下导线不宜变形 (弯曲)

¹⁾ 对象物 90 % の反射率 DIN 5033

²⁾ 限界値

短絡防止回路での動作最大 8 A、

残留リップル最大 5 V_{SS}

³⁾ A = U_v接続 逆接保護

B = 干渉パルス抑制

C = 短絡防止出力

⁴⁾ 氷点下ではケーブルを曲げないこと

FRANÇAIS	
Détecteur réflex <div>avec élimination de premier plan</div> Instructions de Service	

Conseils de sécurité

- N'est pas un composant de sécurité au sens de la directive européenne concernant les machines.
- Lire les Instructions de Service avant la mise en marche.
- Installation, raccordement et réglage ne doivent être effectués que par du personnel qualifié.
- 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
- Lors de la mise en service, protéger l'appareil de l'humidité et des saletés.

Utilisation correcte

Le détecteur réflex WTF4S-3 est un capteur optoélectronique qui s'utilise pour la saisie optique de choses, d'animaux et de personnes sans aucun contact.

Mise en service

- WTF4S-3Exxxx** et **WTF4S-3Fxxxx**

D: Commutation sombre, la sortie (Q) se commute lorsqu'un objet se trouve dans la zone de détection.
WTF4S-3P1332 et **WTF4S-3Px1xx**
WTF4S-3N1332 et **WTF4S-3Nx1xx**
L: Commutation claire, la sortie (Q) se déconnecte lorsqu'un objet se trouve dans la zone de détection.
WTF4S-3P1131 et **WTF4S-3N1131**
WTF4S-3Px231 et **WTF4S-3Nx231**
ANT : sorties exclusives Q et Q̄
Seulement pour les versions à connecteur:
Enficher la boîte à conducteurs sans aucune tension et la visser.
Seulement pour les versions à conducteur de raccordement:
Pour le raccordement dans **B** on a: brn = brun, blu = bleu, blk = noir, wht = blanc.
Raccorder les fils.

Maintenance

Les barrières lumineuses SICK sont sans entretien. Nous vous recommandons de procéder régulièrement
– au nettoyage des surfaces optiques
– au contrôle des liaisons vissées et des connexions
Ne procédez à aucune modification sur les appareils.

PORTUGUÊS	
Foto-célula de reflexão no objeto <div>com supressão de primeiro plano</div> Instruções de operação	

Instruções de segurança

- Não se trata de elemento de segurança segundo a Diretiva Máquinas da União Européa.
- Antes do comissionamento dev ler as instruções de operação.
- Conexões, montagem e ajuste devem ser executados exclusivamente por pessoal devidamente qualificado.
- 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
- Guardar o aparelho ao abrigo de umidade e sujidade.

Utilização devida

A foto-célula de reflexão no objeto WTF4S-3 é um sensor optoeletrónico que é utilizado para a análise ótica, sem contato, de objetos, animais e pessoas.

Comissionamento

- WTF4S-3Exxxx** e **WTF4S-3Fxxxx**

D: comutação por sombra, a saída (Q) liga quando um objeto se encontra na área de deteção.
WTF4S-3P1332 e **WTF4S-3Px1xx**
WTF4S-3N1332 e **WTF4S-3Nx1xx**
L: comutação por luz, a saída (Q) desliga quando um objeto se encontra na área de deteção.
WTF4S-3P1131 e **WTF4S-3N1131**
WTF4S-3Px231 e **WTF4S-3Nx231**
ANT: saídas antivalentes Q e Q̄
Vale somente para as versões com conetores:
Enfiar a caixa de cabos sem torções e aparafusá-la.
Só para os tipos com cabo de força:
Para a ligação elétrica em **B** é: brn = marron, blu = azul, blk = preto, wht = branco.
Fazer a cablagem elétrica dos cabos.

Manutenção

As barreiras de luz SICK não requerem manutenção. Recomendamos que se efetue em intervalos regulares
– uma limpeza das superfícies óticas
– uma verificação das conexões roscadas e dos conectores.
Não são permitidas modificações no aparelho.

ITALIANO	
Sensore luminoso a riflessione <div>con soppressione del primo piano</div> Istruzioni per l'uso	

Avvertimenti di sicurezza

- Non componente di sicurezza secondo la Direttiva macchine EN.
- Leggere prima della messa in esercizio.
- Allacciamento, montaggio e regolazione solo da parte di personale qualificato.
- 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
- Durante la messa in esercizio proteggere da umidità e sporcizia.

Impiego conforme allo scopo

La barriera luminosa a riflessione WTF4S-3 è un sensore optoelettronico che viene impiegato per il rilevamento ottico a distanza di oggetti, animali e persone.

Messa in esercizio

- WTF4S-3Exxxx** e **WTF4S-3Fxxxx**

D: riduzione della luminosità, l'uscita (Q) si attiva quando un oggetto si trova nell'area di rilevamento.
WTF4S-3P1332 e **WTF4S-3Px1xx**
WTF4S-3N1332 e **WTF4S-3Nx1xx**
L: aumento della luminosità, l'uscita (Q) viene disattivata quando un oggetto si trova nell'area di rilevamento
WTF4S-3P1131 e **WTF4S-3N1131**
WTF4S-3Px231 e **WTF4S-3Nx231**
ANT: uscite antivalenti Q e Q̄
Solo con spine:
Inserire scatola esente da tensione e avvitare stringendo.
Solo versioni con cavo di collegamento:
Per collegamento **B** osservare: brn = marrone, blu = blu, blk = nero, wht = bianco.
Collegare i cavi.

Manutenzione

Le barriere fotoelettriche SICK sono esenti da manutenzione. Consigliamo di pulire in intervalli regolari
– le superfici limite ottiche
– verificare i collegamenti a vite e gli innesti a spina.
Non è consentito effettuare modifiche agli apparecchi.

ESPAÑOL	
Barrera de luz de reflexión <div>con ocultación del primer plano</div> Manual de Servicio	

Observaciones sobre seguridad

- No es elemento constructivo de seguridad según la Directiva UE sobre maquinaria.
- Leer el Manual de Servicio antes de la puesta en marcha.
- Conexión, montaje y ajuste solo por personal técnico.
- 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
- A la puesta en marcha proteger el aparato contra humedad y suciedad.

Empleo para usos debidos

El palpador fotoelectrico de reflexión WTF4S-3 es un sensor optoelectrónico empleado para la detección óptica y sin contacto de objetos, animales y personas.

Puesta en marcha

- WTF4S-3Exxxx** y **WTF4S-3Fxxxx**

D: conmutación en oscuro, la salida (Q) se activa cuando un objeto se encuentra en la zona de exploración.
WTF4S-3P1332 y **WTF4S-3Px1xx**
WTF4S-3N1332 y **WTF4S-3Nx1xx**
L: conmutación en claro, la salida (Q) se desconecta cuando un objeto se encuentra en la zona de exploración.
WTF4S-3P1131 y **WTF4S-3N1131**
WTF4S-3Px231 y **WTF4S-3Nx231**
ANT: salida antivalente Q y Q̄
Solo en conectores:
Insertar y atornillar bien la caja de conexiones sin tensión.
Solo en la versión con conductor de conexión:
Para conectar **B**: brn = marrón, blu = azul, blk = negro, wht = blanco.
Conectar los conductores.

Mantenimiento

Las barreras fotoeléctricas SICK no precisan mantenimiento. En intervalos regulares, recomendamos:
– Limpiar las superficies ópticas externas
– Comprobar las uniones roscadas y las conexiones.
No se permite realizar modificaciones en los aparatos.

中文	
对比度探测器 <div>带前景抑制功能</div> 操作规程	

安全使用说明

- 按照EU-机器规程无保护元件。
- 使用前阅读操作规程。
- 只允许专业人员进行接线，安装及调整。
- 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
- 使用时应防潮防污污染。

参量使用

WTF4S-3 漫反射型光电开关是一个光电传感器，用于光学地，无接触地检测物体，动物和人。

投入使用

- WTF4S-3Exxxx** 和 **WTF4S-3Fxxxx**

D：当物体位于传感区域内时，关灯输出端 Q 打开。
WTF4S-3P1332 和 **WTF4S-3Px1xx**
WTF4S-3N1332 和 **WTF4SW-3Nx1xx**
L：当物体位于传感区域内时，亮灯输出端 Q 关闭。
WTF4S-3P1131 和 **WTF4S-3N1131**
WTF4S-3Px231 和 **WTF4S-3Nx231**
ANT：非等价的输出端 Q 和 Q̄
如果是插接版本，则将传感器与导线插孔连接（确保无应力）。
只适用于带接头管线的型号：
B 中的接头：brn = 棕色，blu = 蓝色，blk = 黑色，wht = 白色。
装接电缆。

维护

SICK 光电开关无需保养。我们建议，定期：
Y 清洁镜头检测面
Y 检查螺丝接头和插头连接。
不得对设备进行任何改装。

日本語	
反射形光電スイッチ <div>前景抑制機能付き</div> 取扱説明書	

安全上の注意事項

- 本製品は EU 機械指令の要件を満たす安全コンポーネントではありません。
- 使用を開始する前に取扱説明書をお読みください。
- 接続、取付けおよび設定できるのは専門技術者に限ります。
- 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
- 装置を使用開始する際には、濡れたり汚れたりしないように保護してください。

使用目的

WTF4S-3 は背景抑制機能を備えた反射型光電センサーで、物体、動物、人物などを光学的に非接触で検知するための装置です。

使用開始

- WTF4S-3Exxxx** および **WTF4S-3Fxxxx**

D：ダークオン、対象物が検出範囲にある場合、出力 (Q) はオンになります。
WTF4S-3P1332 および **WTF4S-3Px1xx**
WTF4S-3N1332 および **WTF4S-3Nx1xx**
L：ライトオン、出力 (Q) のスイッチは、対象物が検出範囲にある場合オフになります。
WTF4S-3P1131 および **WTF4S-3N1131**
WTF4S-3Px231 および **WTF4S-3Nx231**
ANT：出力は非等価
コネクタバージョンの場合のみ：
ケーブルプラグをケーブルに張力がかからないように取り付け、ネジ止めします。
接続ケーブル付きのバージョンの場合のみ：
接続：brn = 茶色、blu = 青色、blk = 黒色、gra = 灰色、wht = 白色。

メンテナンス

SICK の光電スイッチはメンテナンス不要です。推奨する定期的な保全作業
- レンズ境界面の清掃
- ネジ締結と差込み締結の点検
デバイスに変更を加えることは一切禁止されています。