

English
Photoelectric proximity sensor
Operating instructions

Safety notes

LASER CLASS 1



EN/IEC 60825-1:2014
IEC60825-1:2007

Maximum pulse power < 250 mW
Pulse length: 4 ns
Wavelength: 650 nm

Complies with 21 CFR 1040.10 and 1040.11 except for Annex D, pursuant to Laser Notice No. 50, dated June 24, 2007

• 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. These devices shall be protected by a 1 A fuse suitable for 30 V DC. Adapters listed by UL with connection boxes are available. Enclosure type 1.
• When commissioning, protect the device from moisture and contamination.
• These operating instructions contain information required during the life cycle of the sensor.
WARNING: Interruption, manipulation or incorrect use can lead to hazardous exposure due to laser radiation.

18018110.101D 0419 COMAT

PowerProx - WTT12L

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Belgium Phone: +32 (0) 2 408 55 66
Brazil Phone: +55 11 3215-4900
Canada Phone: +1 905.711.1444
China Phone: +86 20 2882 3600
Czech Phone: +56 (2) 2274 7430
Denmark Phone: +45 45 82 64 00
Finland Phone: +358 9 25 15 800
France Phone: +33 1 64 62 35 00
Germany Phone: +49 (0) 11 51 93 01
Hong Kong Phone: +852 2153 6300
Hungary Phone: +36 1 371 2680
India Phone: +91 22 619 19 890
Israel Phone: +972 4 6863000
Italy Phone: +39 02 77 43 41
Japan Phone: +81 3 5309 21 31
Korea Phone: +82 31 8309 7425
Malaysia Phone: +60 3 6012 748 9451
Netherlands Phone: +31 (0) 30 229 25 44
New Zealand Phone: +64 9 415 0459
Norway Phone: +47 67 81 50 00
Poland Phone: +48 22 539 41 00
Romania Phone: +40 356 17 11 20
Singapore Phone: +65 495 283 09 90
Slovakia Phone: +421 482 901 201
Spain Phone: +34 93 480 31 00
Sweden Phone: +46 10 110 10 00
Switzerland Phone: +41 41 619 29 39
Taiwan Phone: +886 2 2375 6288
Thailand Phone: +66 2 645 0009
Turkey Phone: +90 216 528 50 00
United Arab Emirates Phone: +971 (0) 4 98 66 678
United Kingdom Phone: +44 (0)17278 31121
USA Phone: +1 800.325.7425
Vietnam Phone: +84 61744 3732

background and the emission capability of the object according to the corresponding diagram [H] (= sensing range, y = minimum distance between the object and background in mm (object remission / background remission) (Remission: 6 % = black, 90 % = white (referring to standard white as per DIN 5033)). The minimum distance (= y) for background suppression can be read from diagram [H1] (1) as follows:
Example: x = 1,000 mm, y = 25 mm. That is, the background is suppressed at a distance of > 25 mm behind the object.

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Note the sensor's maximum permissible tightening torque of 0.8 Nm.
Note the preferred direction of the object relative to the sensor (see [E]).

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• Male connector connection: pin assignment
• Cable: core color
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Operation in IO-Link mode: Connect the device to a suitable IO-Link master and integrate in the master or control via IODD / function block. The green LED indicator flashes on the sensor. IODD and function blocks are available to download from www.sick.com under the order number. Explanations of the connection diagram (graphic B):
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TI / Test = test input (see Additional functions)
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L / D = light / dark switch

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
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Deutsch

Reflexions-Lichttaster
Betriebsanleitung

LASERKLASSE 1



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IEC60825-1:2007

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Entspricht 21 CFR 1040.10 und 1040.11 mit Ausnahme von Anhang D, gemäß Laser-Notiz Nr. 50, datiert Juni 24, 2007

• 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. Diese Geräte müssen mit einer für 30V DC geeigneten 1A-Sicherung abgesichert werden. Von UL gelistete Adapter mit Anschlusskabeln sind verfügbar.
• Enclosure type 1.
• Gerät bei Inbetriebnahme vor Feuchte und Verunreinigung schützen.
• Diese Betriebsanleitung enthält Informationen, die während des Lebenszyklus des Sensors notwendig sind.
ACHTUNG: Eingriffe oder Manipulationen oder nicht bestimmungsgemäße Verwendung kann zu gefährlicher Belastung durch Laser-Lichtstrahlung führen.

Bestimmungsgemäße Verwendung

Die WTT12L ist ein optoelektronischer Reflexions-Lichttaster (im Folgenden Sensor genannt) und wird zur optischen, berührungslosen Erfassen von Sachen eingesetzt. Bei jeder anderen Verwendung und bei Veränderungen am Produkt verfallt jeglicher Gewährleistungsanspruch gegenüber der SICK AG.

The sensor can be used in standard I / O mode (SIO) or IO-Link mode (IOL). All automation functions and other parameter settings are effective in IO-Link mode and in standard I / O mode (exception: time stamp). Output of binary switching signals during standard I / O operation via pin 4 / black wire or via pin 5 / grey wire.
Information on the IO-Link functions can be found in the enclosed IO-Link photoelectric sensors operating instructions or downloaded from www.sick.com under the device order number.

Fault diagnosis

Table 1 indicates which measures are to be taken if the sensor stops working.

Disassembly and disposal

The sensor must be disposed of according to the applicable country-specific regulations. Efforts should be made during the disposal process to recycle the constituent materials (particularly precious metals).

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Betrieb im IO-Link-Modus: Gerät an geeigneten IO-Link-Master anschließen und per IODD / Funktionsblock in den Master bzw. in der Steuerung integrieren. Am Sensor blinkt die grüne Anzeige-LED. IODD und Funktionsblock stehen unter www.sick.com unter der Bestellnummer zum Download bereit.
Erläuterungen zum Anschlussschema (Grafik B):
Teach = externer Teach (ET) (siehe Einstellung)
TI / Test = Testeingang (siehe Zusatzfunktionen)
C = Kommunikation (z. B. IO-Link) (siehe Zusatzfunktionen)
L / D = Hell- / Dunkelmanschalter

Sensor auf Objekt ausrichten. Positionierung so wählen, dass der rote Sendelichtstrahl in der Mitte des Objekts auftrifft. Es ist darauf zu achten, dass die optische Öffnung (Frontscheibe) des Sensors vollständig frei ist (vgl. E). Wir empfehlen, die Einstellung mit einem Objekt von niedriger Remission vorzunehmen.

Sensor mit Potentiometer:
Mit dem Potentiometer (Art. 4: Umkehrungen) wird der Schaltabstand eingestellt. Drehung nach rechts: Erhöhung des Schaltabstandes, Drehung nach links: Verringerung des Schaltabstandes. Wir empfehlen, den Schaltabstand in das Objekt zu legen, z. B. siehe Grafik E. Nachdem der Schaltabstand eingestellt worden ist, das Objekt aus dem Strahlungsbereich entfernen, der Hintergrund wird dabei ausgeblendet und der Schaltabstand ändert sich (siehe Grafik C).

Sensor mit Teach-in-Taste:
Durch Drücken der Teach-in-Taste wird der Schaltabstand eingestellt. Teach-in-Taste nicht mit spitzen Gegenständen betätigen. Wir empfehlen, den Schaltabstand in das Objekt zu legen, z. B. siehe Grafik E. Nach dem der Schaltabstand eingestellt worden ist, das Objekt aus dem Strahlungsbereich entfernen, der Hintergrund wird dabei ausgeblendet und der Schaltabstand ändert sich (siehe Grafik C).

Einstellung des Schaltabstandes über IO-Link bitte der beiliegenden Betriebsanleitung IO-Link Photoelectric sensors entnehmen.
Sensor ist eingestellt und betriebsbereit. Zur Überprüfung der Funktion Grafik C, Einsatzbedingungen prüfen. Siehe Abschnitt Fehlerdiagnose.

Zusatzfunktionen:
Testeingang: Der Sensor WTT12L verfügt über einen Testeingang („TE“ oder „Test“ im Anschlussschema [B]), mit dem der Sender ausgeschaltet und somit die ordnungsgemäße Funktion des Sensors überprüft werden kann: Bei Verwendung von Leitungsdosen mit LED-Anzeigen ist darauf zu achten, dass der TE entsprechend belegt ist.
Es muss sich ein Objekt im Strahlungsbereich befinden (Lichtempfang). Testeingang aktivieren (siehe Anschlussschema [B], TE 24 V). Sende-LED wird abgeschaltet, bzw. es wird simuliert, dass kein Objekt erkannt wird. Zur Überprüfung der Funktion Grafik C heranziehen. Verhält sich der Schaltabstand nicht gemäß Grafik C, Einsatzbedingungen prüfen. Siehe Abschnitt Fehlerdiagnose.
Der Sensor kann im Standard I / O-Modus (SIO) oder im IO-Link-Modus (IOL) verwendet werden. Alle Automatisierungsfunktionen und sonstigen Parametereinstellungen sind im IO-Link-Betrieb und im Standard I / O-Betrieb wirksam (Ausnahme: Zeitstempel). Im Standard I / O-Betrieb Ausgabe der binären Schaltsignale über Pin 4 / schwarze Ader bzw. über Pin 5 / graue Ader. Die IO-Link Funktionalitäten bitte der beiliegenden Betriebsanleitung IO-Link Photoelectric Sensors entnehmen oder über www.sick.com unter der Geräte-Bestellnummer downloaden.

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Operation in IO-Link mode: Connect the device to a suitable IO-Link master and integrate in the master or control via IODD / function block. The green LED indicator flashes on the sensor. IODD and function blocks are available to download from www.sick.com under the order number. Explanations of the connection diagram (graphic B):
Teach-in = external teach-in (ET) (see Adjustment)
TI / Test = test input (see Additional functions)
C = communication (e.g., IO-Link) (see Additional functions)
L / D = light / dark switch

Correct use

The WTT12L is an opto-electronic photoelectric proximity sensor (referred to as "sensor" in the following) for the optical, non-contact detection of objects. If the product is used for any other purpose or modified in any way, any warranty claim against SICK AG shall become void.

Commissioning

1 Check the application conditions: Adjust the sensing range and distance to the object or background in accordance with the information in the diagram according to the corresponding diagram [H] (= sensing range, y = minimum distance between the object and background in mm (object remission / background remission) (Remission: 6 % = black, 90 % = white (referring to standard white as per DIN 5033)). The minimum distance (= y) for background suppression can be read from diagram [H1] (1) as follows:
Example: x = 1,000 mm, y = 25 mm. That is, the background is suppressed at a distance of > 25 mm behind the object.

2 Mount the sensor using a suitable mounting bracket (see the SICK range of accessories).

Note the sensor's maximum permissible tightening torque of 0.8 Nm.
Note the preferred direction of the object relative to the sensor (see [E]).

3 Operation in standard I / O mode:
The sensors must be connected in a voltage-free state (U = 0 V). The information in the graphics [B] must be observed, depending on the connection type:
• Male connector connection: pin assignment
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Français

Détecteur en réflexion directe

Notice d'instruction

Consignes de sécurité

<div><div></div><div>LASER CLASS 1</div></div>
<div><div><div></div><div>Laser</div></div><div><div></div><div>1</div></div></div>
<div>EN/IEC 60825-1:2014 IEC60825-1:2007</div>
<div>Maximum pulse power < 250 mW Puls length: 4 ns Wavelength: 658 nm</div>
<div>Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007</div>

- Lire la notice d'instruction avant la mise en service.
- Confer le raccordement, le montage et le réglage uniquement à un personnel spécialisé.
- I l ne s'agit pas d'un composant de sécurité au sens de la directive machines CE.
- UL: utilisation uniquement dans des applications selon la NFPA 79. Ces appareils doivent être protégés par un fusible de 1 A adapté à 30 V C.C. Des adaptateurs listés UL avec câbles de connexion sont disponibles.
- Protéger l'appareil contre l'humidité et les impuretés lors de la mise en service.
- Cette notice d'instruction contient des informations nécessaires pendant la vie du capteur.
- ATTENTION: toute intervention, manipulation ou utilisation non conforme peut entraîner des blessures graves causées par le faisceau laser.**

Utilisation conforme

WTT12L est un détecteur à réflexion directe optoélectronique (appelé capteur dans ce document) qui détecte les objets par contact d'objets. Toute autre utilisation ou modification du produit annule la garantie de SICK AG.

Mise en service

- Vérifier les conditions d'utilisation : comparer la portée et la distance à l'objet ou à l'arrière-plan et les caractéristiques de réflectivité avec le diagramme correspondant [cf. H] (x = portée, y = distance minimale entre l'objet et l'arrière-plan en mm /réflectivité de l'objet / réflectivité de l'arrière-plan) (réflectivité: 6 % = noir, 90 % = blanc (par rapport au blanc standard selon DIN 5033)).
- La distance minimale (= y) pour l'élimination d'arrière-plan peut être déterminée à partir du diagramme [H] (1) comme suit:

Exemple: x = 1.000 mm, y = 25 mm. Cela signifie que l'arrière-plan est masqué à partir d'une distance supérieure à 25 mm derrière l'objet.

- Monter le capteur sur une équerre de fixation adaptée (voir la gamme d'accessoires SICK).
- Respecter le couple de serrage maximum autorisé du capteur de 0,8 Nm. Tenir compte de la direction préférentielle de l'objet par rapport au capteur [voir E].

- Fonctionnement en mode I / O standard :
 - Le raccordement des capteurs doit s'effectuer hors tension (U_e = 0 V).
 - Selon le mode de raccordement, respecter les informations contenues dans les schémas (B).
 - Raccordement du connecteur : affectation des broches
 - Câble : couleur des fils
 - Après avoir terminé tous les raccordements électriques, enclencher l'alimentation électrique (U_e > 0 V). La LED verte s'allume sur le capteur.
 - Fonctionnement en mode IO-Link : raccorder l'appareil au maître IO-Link approprié et l'intégrer au maître ou à la commande par IODD / bloc de fonctions. La LED verte clignote sur le capteur. IODD et bloc de fonctions peuvent être téléchargés sous la référence de commande à l'adresse www.sick.com.

- Explications relatives au schéma de raccordement (schéma B) :
Apprentissage = apprentissage externe (ET) (voir le réglage)
TE / Test = entrée de teste (voir fonctions supplémentaires)
C = communication (par ex. IO-Link) (voir fonctions supplémentaires)
L / D = commutateur clair / sombre
- Aligner le capteur sur l'objet. Sélectionner la position de sorte que le faisceau lumineux émis rouge toute l'objet en plein milieu. S'assurer que l'ouverture optique (vitre frontale) du capteur est parfaitement dégagée [voir E]. Nous recommandons de procéder au réglage avec un objet peu réfléchissant.

- Capteur avec potentiomètre :
 - La portée se règle avec le potentiomètre (réf. : 4 tours). Rotation vers la droite : augmentation de la portée, rotation vers la gauche : réduction de la portée. Nous recommandons de régler la portée sur l'objet, par ex. voir schéma E. Après le réglage de la portée, retirer l'objet de la trajectoire du faisceau, ce qui élimine l'arrière-plan et fait basculer la sortie de commutation (voir le schéma C).
 - Capteur avec touche apprentissage : Appuyer sur la touche apprentissage pour régler la portée. Ne pas appuyer sur la touche apprentissage avec des objets pointus. Nous recommandons de régler la portée sur l'objet, par ex. voir schéma E. Après le réglage de la portée, retirer l'objet de la trajectoire du faisceau, ce qui élimine l'arrière-plan et fait basculer la sortie de commutation (voir le schéma C).
 - Pour régler la portée via une liaison IO-Link, consulter la notice d'instruction "IO-Link Photoelectric sensors".
- Le capteur est réglé et prêt à être utilisé. Pour contrôler le fonctionnement, utiliser les schémas C et E. Si la sortie de commutation ne se comporte pas comme indiqué sur le schéma C, vérifier les conditions d'utilisation. Voir la section consacrée au diagnostic.

Fonctions supplémentaires

Entrée test : le capteur WTT12L dispose d'une entrée test ("TE" ou "Test" dans le schéma de raccordement [B]) qui permet de tester le capteur et ainsi de contrôler son bon fonctionnement : lorsque des câbles avec connecteurs femelles équipés de DEL sont utilisés, s'assurer que l'entrée TE est correctement affectée.

Aucun objet ne doit se trouver dans la trajectoire du faisceau (réception de la lumière), activer l'intrusion test (voir le schéma de raccordement [B], TE 24 V). La LED d'émission est arrêtée et il est simulé qu'aucun objet n'est détecté. Pour contrôler le fonctionnement, utiliser les schémas C et E pour la commutation ne se comporte pas comme indiqué sur le schéma C vérifier les conditions d'utilisation. Voir la section consacrée au diagnostic. Le capteur peut être utilisé en mode E / S standard (SIO) ou en mode IO-Link (IOL). Toutes les fonctions d'automatisation et tous les autres réglages de paramètres sont actifs en mode IO-Link et en mode E / S standard à l'exception de l'estampillage. En mode E / S standard, sortie des signaux de commutation binaires via la broche 4 / brin noir ou via la broche 5 / brin gris. Les fonctions du mode IO-Link sont décrites dans la notice d'instruction IO-Link Photoelectric Sensors fournie ou peuvent être téléchargées sur www.sick.com sous le numéro de commande de l'appareil.

Diagnosti

Le tableau 1 présente les mesures à appliquer si le capteur ne fonctionne plus.

Démontage et mise au rebut

La mise au rebut du capteur doit respecter la réglementation nationale en vigueur. Dans le cadre de la mise au rebut, veiller à recycler les matériaux (notamment les métaux précieux).

Maintenance

Les capteurs SICK ne nécessitent aucune maintenance. Nous vous recommandons de procéder régulièrement – au nettoyage des surfaces optiques – au contrôle des visages et des connexions enfichables

Ne procéder à aucune modification sur les appareils.

Sujet à modification sans préavis. Les caractéristiques du produit et techniques fournies ne sont pas une déclaration de garantie.

Português

Sensor de reflexão

Manual de instruções

Notas de segurança

<div><div></div><div>LASER CLASS 1</div></div>
<div><div><div></div><div>Laser</div></div><div><div></div><div>1</div></div></div>
<div>EN/IEC 60825-1:2014 IEC60825-1:2007</div>
<div>Maximum pulse power < 250 mW Puls length: 4 ns Wavelength: 658 nm</div>
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- Per as instruções de operação antes da colocação em funcionamento.
- A conexão, o montagem e o ajuste devem ser executados somente por pessoal técnico qualificado.
- Os componentes de segurança não se encontram em conformidade com a Diretiva Europeia de Máquinas.
- UL: Somente na utilização em aplicações de acordo com NFPA 79. Estes dispositivos devem ser protegidos por um fusível de 1 A adequadu para 30 VCC. Isto disponívels adaptadores listados pela UL com cabo de conexão. Enclosure type 1.
- Durante o funcionamento, manter o aparelho protegido contra im- puridade e umidade.
- Este manual de instruções contém informações necessárias para toda a vida útil do sensor.
- ATENÇÃO: Intervenções ou manipulações, ou o uso contrário às especificações podem levar a uma carga perigosa por radiação laser.**

Especificações de uso

O WTT12L é um sensor optoeletrônico de reflexão (doravante denominado "sensor") utilizado para a detecção óptica e sem contato de objetos. Qualquer utilização diferente ou alterações do produto provocarã perda de garantia da SICK AG.

Colocação em operação

- Verificar as condições de uso: equiparar a distância de comutação e distância até o objeto ou plano de fundo, bem como a refletividade do objeto, com o respectivo diagrama [cf. H] (x = distância de comuta- ção, y = distância mínima entre o objeto e o plano de fundo em mm (luminância do objeto / luminância do fundo) (refletividade: 6 % = preto, 90 % = branco (com base no padrão branco da norma DIN 5033)).
- A distância mínima (= y) para a supressão do fundo pode ser obtida do diagrama [cf. H] (1) como a seguir:

Exemplo: x = 1000 mm, y = 25 mm. Isto significa, que o plano de fundo é suprimido a partir de uma distância de > 25 mm atrás do objeto.
- Montar o sensor numa cantoneira de fixação adequada (ver linha de acessórios da SICK).

Observar o torque de aperto máximo permitido de 0,8 Nm para o sensor. Observar a direção preferencial do objeto em relação ao sensor [cp. E].

- Operação no modo I / O padrão :
 - A conexão dos sensores deve ser realizada em estado desenergizado (U_e = 0 V). Conforme o tipo de conexão, devem ser observadas as informações contidas nos gráficos (cp. B).
 - Conector: Pin-out
 - Cabo: Cor dos fios

- Operação no modo IO-Link: conectar o dispositivo a um mestre IO-Link adequado e integrá-lo ao mestre ou ao comando através de IODD / blo- co funcional. O indicador LED verde está intermitente no sensor. O download da IODD e o bloco funcional podem ser efetuado em www.sick.com com o número de encomenda. Explicações relativas ao esquema de conexões (Gráfico B): Teach = Teatrada exte (TE) (ver Ajustes) TE / Teste = Entrada de teste (ver Funções adicionais) C = Comunicação (por ex., IO-Link) (ver Funções adicionais) L / D = Comutador por sombra / luz

- Alinhar o sensor ao objeto. Posicionar, de forma que o feixe da luz de emissão vermelha incida sobre o centro do objeto. Certificar-se de que a abertura óptica (viro frontal) do sensor esteja completamente livre [cp. E]. Recomendamos efetuar o ajuste com um objeto de baixa luminosidade.
- Sensor com potenciômetro:
 - A distância de comutação é ajustada com o potenciômetro (tipo: 4 rotações). Giro para direita: aumento da distância de comutação; giro para esquerda: redução da distância de comutação. Recomendamos posicionar a distância de comutação no objeto, por ex., com no gráfico C. Após o ajuste da distância de comutação, o objeto é removido do caminho óptico, o fundo é suprimido e a saída de comutação se altera (ver Gráfico C).
 - Sensor com tecla Teach-in: O ajuste da distância de comutação é efetuado com a pressão da tecla Teach-in. Nãoacionar a tecla Teach-in com objetos pontiagudos. Recomendamos posicionar a distância de comutação no objeto, por ex., como no gráfico E. Após o ajuste da distância de comutação, o objeto é removido do caminho óptico, o fundo é suprimido e a saída de comutação se altera (ver Gráfico C).
- Para o ajuste da distância de comutação através de IO-Link, por favor consulte o manual de instruções anexa, IO-Link Photoelectric Sensors.

- O sensor está ajustado e pronto para o uso. Para controlar o funcionamento, use o botão de teste (TE) ou "Teste" no esquema de conexões [B], através da qual o sensor é des- energizado, permitindo assim verificar o seu funcionamento correto: ao utilizar conectores fêmea com indicadores LED, certificar-se de que a TE tenha o pin-out adequado.
- É necessário haver um objeto no caminho óptico (recepção de luz), ativar a entrada de teste (ver o esquema de conexões [B], ET 24V). O LED

de emissão é desligado e há a simulação, de que nenhum objeto foi detectado. Utilizar os gráficos C para verificar o funcionamento. Se a saída de comutação não se comportar de acordo com o gráfico C, verificar as condições de uso. Ver seção Diagnóstico de erros.

O sensor pode ser utilizado no modo I / O padrão (SIO) ou no modo IO-Link (IOL). Todas as funções de automação e outros ajustes de parâmetros têm efeito na operação IO-Link e na operação I / O padrão (exceto: Carimbo de tempo). Na operação I / O padrão, há a saída dos sinais de comutação binários através do pino 4 / fio preto ou do pino 5 / fio cinza.

Você pode consultar as funcionalidades de IO-Link no manual de instruções "IO-Link Photoelectric sensors" anexo ou fazer o download em www.sick.com com o número de encomenda do dispositivo.

Diagnóstico de erros

A tabela 1 mostra as medidas a serem executadas, quando o sensor não estiver funcionando.

Desmontagem e descarte

O descarte do sensor deve ser efetuado de acordo com as normas aplicáveis específicas de cada país. No âmbito do descarte, deve-se procurar o aproveitamento dos materiais recicláveis contidos (principalmente dos metais nobres).

Manutenção

Os sensores SICK não requerem manutenção. Recomendamos que se efetue em intervalos regulares – uma limpeza das superfícies ópticas – uma verificação das conexões roscaadas e dos conectores

Não são permitidas modificações no aparelho.

Sujeito a alterações sem aviso prévio. As propriedades do produto e os dados técnicos especificados não constituem nenhum certificado de garantia.

Subject to alterations without prior notice. The properties of the product and the data specified do not constitute any certificate of warranty.

Italiano

Sensore di luce a riflessione

Istruzioni per l'uso

Avvertenze sulla sicurezza

<div><div></div><div>LASER CLASS 1</div></div>
<div><div><div></div><div>Laser</div></div><div><div></div><div>1</div></div></div>
<div>EN/IEC 60825-1:2014 IEC60825-1:2007</div>
<div>Maximum pulse power < 250 mW Puls length: 4 ns Wavelength: 658 nm</div>
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- Prima della messa in funzionamento leggere le istruzioni per l'uso.
- Allacciamento, montaggio e regolazione solo a cura di personale tecnico specializzato.
- Nessun componente di sicurezza ai sensi della direttiva macchine UE.
- UL: Solo per l' utilizzo in applicazioni ai sensi di NFPA 79. Questi dispositivi devono essere protetti con fusibile 1 A idoneo per 30 V cc. Sono disponibili le adattatori elencati nel presente documento. Enclosure type 1.
- Alla messa in funzionamento proteggere l'apparecchio dall'umidità e dalla sporcizia.
- Queste istruzioni per l'uso contengono le informazioni che sono neces- sarie durante il ciclo di vita del prodotto.
- ATTENZIONE: interventi o manipolazioni o un uso non conforme alle indicazioni può provocare un carico pericoloso dovuto al raggio di luce laser.**

Uso conforme alle prescrizioni

La WTT12L è una fotocellula a riflessione optoelettronica (di seguito nomen- clato "sensore") utilizzata per il rilevamento ottico senza contatto di oggetti. Se viene utilizzato diversamente e in caso di modifiche sul prodotto, decade qualsiasi diritto alla garanzia nei confronti di SICK.

Messa in funzione

- Controllare le condizioni d'impiego: predisporre la distanza di comu- tazione e la distanza dall'oggetto o dal sfondo nonché il fatto di riflessione dell'oggetto in base al relativo diagramma [cf. H] (x = distanza di comunicazione, y = distanza minima tra oggetto e sfondo in mm (emissione oggetto / emissione sfondo) (reflettività: 6 % = nero, 90 % = bianco (riferito al bianco standard secondo DIN 5033)).
- La distanza minima (= y) per la soppressione dello sfondo può essere letta dal diagramma [cf. H] (1) come segue:

Esempio: x = 1000 mm, y = 25 mm. Questo significa che lo sfondo viene soppresso a partire da una distanza > 25 mm dall'oggetto.

- Montare il sensore su un punto di fissaggio adatto (vedi il programma per accessori SICK).
- Rispettare il momento torcente massimo consentito del sensore di 0,8 Nm. Rispettare la direzione preferenziale dell'oggetto in relazione al sensore [cf. E].
- Funzioneamento in modalità I / O standard:
 - Il collegamento dei sensori deve avvenire in assenza di tensione (U_e = 0 V).
 - In base al tipo di collegamento si devono rispettare le informazioni nei grafici [cf. B].
 - Collegamento a spina: assegnazione pin
 - Collegamento: colore filo
 - Solo: Solo per utilizar in applicazioni según NFPA 79. Estos dispositivos estarán protegidos por un fusible de 1 A adecuado para 30 VCC. Se encuentran disponibles adaptadores listados por UL con cable de conexión. Enclosure type 1.
 - Protéja el equipo contra la humedad y la suciedad durante la puesta en servicio.
 - Las presentes instrucciones de uso contienen información que puede ser necesaria durante todo el ciclo de vida del sensor.

- Montare il sensore su un punto di fissaggio adatto (vedi il programma per accessori SICK).

- Rispettare il momento torcente massimo consentito del sensore di 0,8 Nm. Rispettare la direzione preferenziale dell'oggetto in relazione al sensore [cf. E].

- Funzioneamento in modalità I / O standard:
 - Il collegamento dei sensori deve avvenire in assenza di tensione (U_e = 0 V).
 - In base al tipo di collegamento si devono rispettare le informazioni nei grafici [cf. B].
 - Collegamento a spina: assegnazione pin
 - Collegamento: colore filo
 - Solo: Solo per utilizar en aplicaciones según NFPA 79. Estos dispositivos estarán protegidos por un fusible de 1 A adecuado para 30 VCC. Se encuentran disponibles adaptadores listados por UL con cable de conexión. Enclosure type 1.
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- Montare il sensore su un punto di fissaggio adatto (vedi il programma per accessori SICK).
- Rispettare il momento torcente massimo consentito del sensore di 0,8 Nm. Rispettar la orientación preferente del objeto con respecto al sensor. [ver fig. E].

- Funzioneamento in modo E / S estándar:
 - Los sensores deben conectarse sin tensión (U_e = 0 V) hasta que se encuentra la información de las figuras [B] en función de cada tipo de conexión.

Premendo il tasto Teach-in viene impostata la distanza di commutazio- one. Non azionare il tasto Teach-in con oggetti appuntiti. Si consiglia di fissare la distanza di comunicazione nell'oggetto, ad es. vedi grafico E. Dopo l'impostazione della distanza di comunicazione, allontanare l'oggetto dalla traiettoria del raggio. Il sfondo viene quindi soppresso e l'uscita di commutazione cambia (vedi grafico C).

Per l'impostazione della distanza di comunicazione tramite IO-Link , consultare le istruzioni d'uso allegate "IO-Link Photoelectric sensors". Il sensore è impostato e pronto per il funzionamento. Per verificare il funzionamento, osservare i grafici C e E. Se l'uscita di comunicazione non si comporta come indicato al grafico C, verificare le condizioni d'impiego. Vedi paragrafo diagnostica delle anomalie.

Funzioni supplementari

Entrata di prova: il sensore WTT12L dispone di un'entrata di prova ("TE" o "Test" nello schema di collegamento [B]), tramite la quale l'entrata può essere disattivata e in questo modo il funzionamento regolare del sensore può venire controllato: in caso di uso di connettori femmine precablati con indicatori LED si deve prestare attenzione che TE sia realmente inserita.

Ci si deve essere un oggetto nella traiettoria del raggio (ricezione luce), attivare l'entrata di prova (vedi schéma di collegamento [B], TE 24 V). Il LED di emissione si spegne, ovvero viene simulato il rilevamento di nessun oggetto. Per verificare il funzionamento, osservare i grafici C e E. Se l'uscita di comunicazione non si comporta conformemente al grafico C, verificare le condizioni d'impiego. Vedi paragrafo Diagnostica delle anomalie.

Il sensore può essere utilizzato in modalità standard I / O (SIO) oppure IO-Link (IOL). Tutte le funzioni automatiche e ulteriori impostazioni i parametri sono attive nel funzionamento IO-Link e nel funzionamento standard I / O (eccezione: marcatempo). Nel funzionamento standard I / O, output dei segnali di commutazione binari attraverso il pino 4 / conduttore nero ovvero il pino 5 / conduttore grigio.

Per le funzionalità IO-Link consultare le istruzioni d'uso supplementari ivi allegate "IO-Link Photoelectric sensors" o scaricare la funzionalità IO-Link dal sito web www.sick.com alla voce "numero d'ordine dei dispositivi".

Diagnostica delle anomalie

La tabella 1 mostra quali provvedimenti si devono adottare quando il sensore non funziona più.

Smontaggio e smaltimento

Lo smaltimento del sensore deve avvenire conformemente alle direttive previste specificatamente dal paese. Per materiali riciclabili in esso contenuti (in particolare metalli nobili) si auspica un riciclaggio nell'ambito dello smaltimento.

Manutenzione

Il sensore SICK non èsenà di manutenzione. A intervalli regolari si consiglia di pulire le superfici ottiche e i connettori – verificare i collegamenti a vite e gli innesti a spina

Non è consentito effettuare modifiche agli apparecchi. Contenuti soggetti a modifiche senza preavviso. Le proprietà del prodotto e le schede tecniche indicate non costituiscono una dichiarazione di garanzia.

Español

Sensor fotoeléctrico de reflexión

Instrucciones de seguridad

<div><div></div><div>LASER CLASS 1</div></div>
<div><div><div></div><div>Laser</div></div><div><div></div><div>1</div></div></div>
<div>EN/IEC 60825-1:2014 IEC60825-1:2007</div>
<div>Maximum pulse power < 250 mW Puls length: 4 ns Wavelength: 658 nm</div>
<div>Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007</div>

- Lea las instrucciones de uso antes de efectuar la puesta en servicio.
- La conexión, el montaje y el ajuste deben ser efectuados exclusivamente por técnicos especialistas.
- No se trata de un componente de seguridad según la Directiva de máquinas de la UE.
- UL: Solo para utilizar en aplicaciones según NFPA 79. Estos dispositivos estarán protegidos por un fusible de 1 A adecuado para 30 VCC. Se encuentran disponibles adaptadores listados por UL con cable de conexión. Enclosure type 1.
- Protéja el equipo contra la humedad y la suciedad durante la puesta en servicio.
- Las presentes instrucciones de uso contienen información que puede ser necesaria durante todo el ciclo de vida del sensor.

- Montare il sensore su un punto di fissaggio adatto (vedi il programma per accessori SICK).

- Rispettare il momento torcente massimo consentito del sensore di 0,8 Nm. Rispettare la direzione preferenziale dell'oggetto in relazione al sensore [cf. E].

Uso conforme a lo previsto

La WTT12L es una fotocélula optoelectrónica de reflexión directa (en lo sucesivo llamada "sensor") empleada para la detección óptica y sin contacto de objetos. Cualquier uso diferente al previsto o modificación en el pro- ducto invalidará la garantía por parte de SICK AG.

Puesta en marcha

- Comprobar las condiciones de aplicación: comparar la distancia de comutación y la distancia al objeto o al fondo, así como la capacidad de emisión del objeto, con el diagrama correspondiente [véase figura H] (x = distancia de comutación, y = distancia mínima entre el objeto y el fondo en mm [emisión del objeto / emisión del fon- do] (reflektividad: 6 % = negro, 90 % = blanco (referido al blanco estándar según DIN 5033)).

- La distancia mínima (= y) para suprimir el fondo puede extraerse del diagrama [véase figura H] (1) del modo siguiente:

Ejemplo: x = 1.000 mm, y = 25 mm. Es decir, el fondo se suprimirá a partir de una distancia de > 25 mm por detrás del objeto.

- Montar el sensor en una escuadra de fijación adecuada (véase el programa para accesorios SICK).

Respetar el el par de apete máximo admisible del sensor de 0,8 Nm. Respetar la orientación preferente del objeto con respecto al sensor. [ver fig. E].

- Funcionamiento en modo E / S estándar:
 - Los sensores deben conectarse sin tensión (U_e = 0 V) hasta que se encuentra la información de las figuras [B] en función de cada tipo de conexión.

Explicaciones relativas al esquema de conexión [Gráfico B):

Apprendizaje = aprendizaje externo (ET) Véase Configuración TE / Test = entrada de prueba (véase Funciones adicionales) C = comunicación (p. ej., IO-Link) Véase Funciones adicionales

- L / D = conmutador en claro / u oscuro
- Oriento el sensor hacia el objeto. Seleccione una posición que permita que el haz de luz roja del transmisor incida en el centro del objeto. Hay que procurar que la apertura óptica (pantalla frontal) del sensor quede completamente libre (véase figura E).
- Ajustar con el potenciómetro: Con el potenciómetro (tipo: 4 revoluciones) se ajusta la distancia de comutación. Giro hacia la derecha: aumenta la distancia de comutación. Recomendamos poner la distancia de comutación en el objeto, p. ej., véase figura E. Una vez ajustada la distancia de comutación, retirar el objeto de la trayectoria del haz, el fondo se suprime y la salida commutada cambia (véase Figura C).

Con el potenciómetro (tipo: 4 revoluciones) se ajusta la distancia de comutación. Giro hacia la derecha: aumenta la distancia de comutación. Recomendamos poner la distancia de comutación en el objeto, p. ej., véase figura E. Una vez ajustada la distancia de comutación, retirar el objeto de la trayectoria del haz, el fondo se suprime y la salida commutada cambia (véase Figura C).

Para el ajuste de la distancia de comutación a través de IO-Link puede consultar en las instrucciones de uso para sensores fotoeléctricos IO-Link adjuntas.

El sensor está ajustado y listo para su uso. Para verificar el funciona- miento, véanse las figuras C y E. Si la salida comutada no se comporta según la figura C, comprobar las condiciones de aplicación. Véase la sección "Diagnóstico de fallos".

Funciones adicionales

Entrada de prueba: el sensor WTT12L dispone de una entrada de prueba ("TE" o "Test" en el esquema de conexión [B]), con la que puede desconectar el emisor y, de ese modo, comprobarse el buen funciona- miento del sensor: si se utilizan tornos de red con indicadores LED hay que procurar que la TE esté asignada como corresponde.

Debe encontrarse un objeto en la trayectoria del haz (recepción de luz), activar la entrada de prueba (véase esquema de conexión [B], TE 24 V). El LED emisor se desconecta o se simula que no se ha detectado ningún objeto. Para verificar el funcionamiento, véanse las figuras C. Si la salida comutada no se comporta según la figura C, comprobar las condiciones de aplicación. Véase la sección "Diagnóstico de fallos".

El sensor puede utilizarse en el modo E / S estándar (SIO) o en el modo IO-Link (IOL). Todas las funciones de automatización y las configuraciones de parámetros son efectivas tanto en el modo IO-Link como en el modo E / S estándar (excepción: sellado de tiempo). En el modo E / S estándar, la salida de las señales de comutación binarias se realiza a través del terminal 4 / hilo negro (o del terminal 5 / hilo gris).

Puede consultar las funciones del sistema IO-Link en las instrucciones de uso para sensores fotoeléctricos IO-Link adjuntas o descargarlas con el número de pedido del equipo en la página web www.sick.com.

Diagnóstico de fallos

La tabla 1 muestra las medidas que hay que tomar cuando ya no está indicado el funcionamiento del sensor.

Desmontaje y eliminación

El sensor tiene que eliminarse siguiendo la normativa aplicable específica de cada país. Los materiales valiosos que contenga (especialmente metales nobles) deben ser eliminados considerando el modo del reciclaje.

Mantenimiento

Los sensores SICK no precisan mantenimiento. A intervalos regulares, recomendamos:

- limpiar las superficies ópticas
- comprobar las uniones roscaadas y las conexiones.

No se permite realizar modificaciones en los aparatos. Sujetos a cambios sin previo aviso. Las propiedades y los datos técnicos del producto no suponen ninguna declaración de garantía.

中文