

ENGLISH
<p>Magnetic cylinder sensor for T-slot</p> <p>Operating Instructions</p>

#### Safety notes

- Magnetic cylinder sensor for T-slot for categories II 3G and II 3D
- Ambient operating temperature T<sub>a</sub> = –20 °C ... +50 °C
- Temperature class T4, or maximum surface temperature of T = 135 °C
- Enclosure rating IP 67
- Read the operating instructions before starting operation.
- Connection, assembly, and commissioning only by competent technicians.
- No safety component in accordance with EU machine guidelines.
- The sensor may only be mounted as a complete unit in the T-slot. In accordance with EN 60079-0, the restriction relating to low risk impact energy also applies. Especially at ambient temperatures below 0 °C, the operator must ensure that the sensor is not exposed to any mechanical impacts.
- The sensor should be protected against UV light.
- Do not disconnect the cable or plug when it is energized.
- The cable should be protected against physical damage and a cord grip have to be installed.
- The fuse protection clips provided must be assembled over the plug connector on sensors that are equipped with an M8 or M12 plug on the cable end.

#### Proper Use

This magnetic cylinder sensor for T-slot is used for detecting magnetic fields in explosion-proof areas.

Use on dovetail cylinders is possible in combination with SICK Adapter BEF-KHZ-ST1 (Part no. 2022703), or on profile rod/tension rod cylinders in combination with SICK Adapter BEF-KHZ-PT1 (Part no. 2022702) if the sensor is mounted completely in the slot of the adapter.

When using the sensor on roundbody cylinders in conjunction with one of the SICK BEF-KHZ-RT1-25 (item no. 5311171), BEF-KHZ-RT1-63 (item no. 5311172), or BEF-KHZ-RT1-130 (item no. 5311506) adapters, it must be ensured that these adapters do not provide sufficient protection against impacts in terms of the EX standards. The operator of the sensor must ensure that the sensor is not exposed to any mechanical impacts.

#### Performance data of sensor

Operating voltage U<sub>o</sub> = 10 ... 30 V DC

Continuous current I<sub>a</sub> ≤ 100 mA

Ambient operating temperature T<sub>a</sub> = –20 °C ... +50 °C

#### Sensor designation:

For reasons of space, the following limited markings are added to the sensor:

**Ex** II 3G Ex nA IIC T4 X  
II 3D Ex IIIC T135°C X

#### Commissioning

The following must be observed when connecting the sensor to a voltage source:

- The performance data (operating voltage, continuous current).
- The connection diagram of the sensor.

#### Maintenance

The magnetic cylinder sensor for T-slot from SICK does not require any maintenance. We recommend that you check the connections at regular intervals.

DEUTSCH
<p>Magnetischer Zylindersensor für T-Nut</p> <p>Betriebsanleitung</p>
<p><b>Sicherheitshinweise</b></p> <ul style="list-style-type: none"><li>Magnetischer Zylindersensor für T-Nut für Kategorie II 3G und II 3D</li> <li>Umgebungstemperatur T<sub>a</sub> = –20 °C ... +50 °C</li> <li>Temperaturklasse T4, bzw. maximale Oberflächentemperatur von T = 135 °C</li> <li>Schutzart IP 67</li> <li>Vor der Inbetriebnahme die Betriebsanleitung lesen.</li> <li>Montage, Anschluss und Inbetriebnahme nur durch Fachpersonal.</li> <li>Kein Sicherheitsbauteil gemäß EU-Maschinenrichtlinie.</li> <li>Der Sensor darf nur komplett in der T-Nut montiert verwendet werden. Es gilt zusätzlich die Einschränkung „Niedriger Gefährungsgrad bzgl. Schlagenergie nach EN 60079-0. Speziell bei Umgebungstemperaturen unter 0 °C hat der Betreiber sicherzustellen, dass der Sensor keinen mechanischen Schlägen ausgesetzt wird.</li> <li>Der Sensor ist vor UV-Licht zu schützen.</li> <li>Leitung bzw. Stecker nicht unter Spannung trennen.</li> <li>Die Leitung ist geschützt zu verlegen, bzw. es ist eine zusätzliche Zugentlastung vorzusehen.</li> <li>Bei Sensoren, die am Leitungsende über einen M8- bzw. M12-Stecker verfügen, müssen über die Steckverbindung die beiliegen- den Abzugs-Sicherungs-Clips montiert werden.</li></ul>
<p><b>Bestimmungsgemäße Verwendung</b></p> <p>Dieser Magnetische Zylindersensor für T-Nut wird zum Erfassen von magnetischen Feldern in explosionsgefährdeten Bereichen eingesetzt. Eine Verwendung an Schwalbenschwanznut-Zylindern ist in Kombination mit dem SICK-Adapter BEF-KHZ-ST1 (Bestell-Nr. 2022703), bzw. an Profilstangen-/Zugstangenzy lindern in Kombination mit dem SICK-Adapter BEF-KHZ-PT1 (Bestell-Nr. 2022702) ohne Einschränkung möglich, wenn der Sensor komplett in der Nut des Adapters montiert wird.</p>

ENGLISH
<p>Magnetic cylinder sensor for T-slot</p> <p>Operating Instructions</p>

8010551.YSG3 0316 COMAT

# Magnetischer Zylindersensor für T-Nut

**Ex** II 3G Ex nA op is IIC T4 Gc X  
II 3D Ex tc IIIC T135°C Dc X

<p><b>Australia</b> Phone +61 3 9457 0600</p> <p><b>Austria</b> Phone +43 (0)22 36 62 28 8-0</p> <p><b>Belgium/Luxembourg</b> Phone +32 (0)2 466 55 66</p> <p><b>Brazil</b> Phone +55 11 3215-4900</p> <p><b>Canada</b> Phone +1 905 771 14 44</p> <p><b>Czech Republic</b> Phone +420 2 57 91 18 50</p> <p><b>Chile</b> Phone +56 2 2274 7430</p> <p><b>China</b> Phone +86 4000 121 000 +852 2183 6300</p> <p><b>Denmark</b> Phone +45 45 82 64 00</p> <p><b>Finland</b> Phone +358-9-2515 800</p> <p><b>France</b> Phone +33 1 64 62 35 00</p> <p><b>Germany</b> Phone +49 211 5301-301</p> <p><b>Great Britain</b> Phone +44 (0)1727 831121</p> <p><b>Hong Kong</b> Phone +852 2153 6300</p> <p><b>Hungary</b> Phone +36 1 371 2680</p> <p><b>India</b> Phone +91-22-4033 8333</p> <p><b>Israel</b> Phone +972-4-6881000</p> <p><b>Italy</b> Phone +39 02 27 43 41</p> <p><b>Japan</b> Phone +81 (0)3 5309 2112</p> <p><b>Malaysia</b> Phone +603 808070425</p> <p>SICK AG, Erwin-Sick-Strasse 1, D-79183 Waldkirch</p> <p>Please find detailed addresses and additional representatives and agencies in all major industrial nations at <a href="http://www.sick.com">www.sick.com</a></p>	<p><b>Netherlands</b> Phone +31 (0)30 229 25 44</p> <p><b>New Zealand</b> Phone +64 9 415 0459</p> <p><b>Norway</b> Phone +47 67 81 50 00</p> <p><b>Poland</b> Phone +48 22 837 40 50</p> <p><b>Romania</b> Phone +40 356 171 120</p> <p><b>Russia</b> Phone +7-495-775-05-30</p> <p><b>Singapore</b> Phone +65 6744 3732</p> <p><b>Slovakia</b> Phone +421 482 901201</p> <p><b>Slovenia</b> Phone +386 (0)147 69 990</p> <p><b>South Africa</b> Phone +27 11 472 3733</p> <p><b>South Korea</b> Phone +82 2 786 6321</p> <p><b>Spain</b> Phone +34 93 480 31 00</p> <p><b>Sweden</b> Phone +46 10 110 10 00</p> <p><b>Switzerland</b> Phone +41 41 619 29 39</p> <p><b>Taiwan</b> Phone +886 2 2375-6288</p> <p><b>Thailand</b> Phone +66 2645 0009</p> <p><b>Turkey</b> Phone +90 (216) 528 50 00</p> <p><b>United Arab Emirates</b> Phone +971 (0) 4 88 65 878</p> <p><b>USA/Mexico</b> Phone +1(952) 941-6780</p> <p><b>Vietnam</b> Phone +84 8 62920204</p>	<p>BE nr:44</p>
---	---	---------------------

<p>More representatives and agencies at <a href="http://www.sick.com">www.sick.com</a> · Subject to change without notice · The specified product features and technical data do not represent any guarantee.</p>
---

<p>Weitere Niederlassungen finden Sie unter <a href="http://www.sick.com">www.sick.com</a> · Irrtümer und Änderungen vorbehalten · Angegebene Produkteigenschaften und technische Daten stellen keine Garantieerklärung dar.</p>
--

Plus de représentations et d'agences à l'adresse [www.sick.com](http://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](http://www.sick.com) · Alterações poderão ser feitas sem prévio aviso · As características do produto e os dados técnicos apresentados não constituem declaração de garantia.

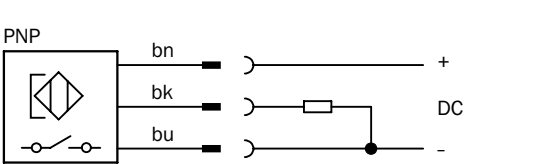
Altri rappresentanti ed agenzie si trovano su [www.sick.com](http://www.sick.com) · Contenuti soggetti a modifiche senza preavviso · Le caratteristiche del prodotto e i dati tecnici non rappresentano una dichiarazione di garanzia.

Más representantes y agencias en [www.sick.com](http://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](http://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](http://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。

### A Anschlussdiagramm/Connection diagram



Aderfarbe/Wire colour	Belegung/Assignment
bn	braun/brown + V DC
bk	schwarz/black Schließer/NO
bu	blau/blue - V DC

Typ/Type	Bestell-Nr./Part no.
MZT6-03VPS-KWX	1025827
MZT6-03VPS-KPX	1028629
MZT6-03VPS-KQX	1029161
MZT6-03VPS-KWAS06	1042119
MZT6-03VPS-KQDS03	1042130



ENGLISH		
<p>EU Declaration of conformity</p>		
<p>The undersigned, representing the following manufacturer</p> <p>SICK AG Erwin-Sick-Strasse 1 79183 Waldkirch Germany</p>		
<p>herewith declares, that the products listed above are in conformity with the provisions of the following EC directives (including all applicable amendments), and that the standards and/or technical specifications referenced below have been applied.</p>		
<p>Following inspection result has been achieved for the listed devices:</p>		
<p><b>Ex</b> II 3G Ex nA op is IIC T4 Gc X II 3D Ex tc IIIC T135°C Dc X</p>		
<p>The housing of the sensor offers at operating temperatures below 0°C an insufficient protection against mechanical hits in the sense of the Ex-standard. This has to be taken into account while operating the sensor (see instruction manual).</p>		
Directives	Title or short description	Issued
Official Journal of the EU L96		
Directive 2014/30/EU	EMC-Directive – electromagnetic compatibility	2014 - 02
Directive 2014/34/EU	Equipment and protective systems intended for use in potentially explosive atmosphere	2014 - 02
Standards	Title or short description	Issued
EN 60947 - 5 - 2	Low voltage switchgear and controlgear – part 5-2: Control circuit devices and switching elements – proximity switches	2007 - 12
EN 60947 - 5 - 2 / A1	Low voltage switchgear and controlgear – part 5-2: Control circuit devices and switching elements – proximity switches (amendment)	2012 - 11
EN 60079 - 0	Explosive atmospheres – part 0: Equipment – General requirements	2012 - 08
EN 60079 - 0 / A11	Explosive atmospheres – part 0: Equipment – General requirements (amendment)	2013 - 11
EN 60079 - 15	Explosive atmospheres – part 15: Equipment protection by type of protection „n“	2010 - 05
EN 60079 - 28	Explosive atmospheres – part 28: Protection of equipment and transmission systems using optical radiation	2007 - 03
EN 60079 - 31	Explosive atmospheres – part 31: Equipment dust ignition protection by enclosure “t”	2014 - 07
<p><b>Date: 2016-15-08</b></p> <p><i>I.V. Werbelow</i></p> <p>I.V. Dr. Mohr Business Unit Manager DfW01 Research &amp; Development BU12 Sensors &amp; Connectivity</p> <p><i>I.V. Werbelow</i></p> <p>I.V. Werbelow Business Manager DfW01 Production Electromagnetic Sensors &amp; Connectivity</p>		

