



## Magnetic Cylinder Sensors Sensors for T-slot cylinders

MZT8-03VNS-KP0



**Model Name** > [MZT8-03VNS-KP0](#)  
**Part No.** > [1044932](#)



#### At a glance

- Magnetic piston detection for all conventional pneumatic cylinders with T-slots
- Short sensor housing length - only 24 mm
- Sensor element at the tip of the housing
- Proprietary GMR-ASIC technology ensures precise switching and low hysteresis
- Enclosure rating: IP 68 / IP 69K (PUR) respectively IP 67 / IP 69K (PVC)
- Captive screw
- LED function indicator
- For all commonly used cylinders with T-slots, e.g., Festo or SMC and it can be applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets

#### Your benefits

- Shortest sensor on the market, making it ideal for short stroke cylinders
- Sensor element at the tip of the sensor - piston detection possible without stroke loss
- Captive installation screw enables reliable and optimized installation
- Time saving "single-handed mounting" with 1/4 turn
- Flexible installation via Allen wrench or flathead screwdriver
- Extremely rugged housing - rated for IP67 respectively IP 68 and IP 69K, enlarging sensor life time



#### Features

|                              |                                                                                                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output type:                 | NPN                                                                                                                                                            |
| Output function:             | NO                                                                                                                                                             |
| Electrical wiring:           | DC 3-wire                                                                                                                                                      |
| Enclosure rating:            | IP 68                                                                                                                                                          |
| Sensing face:                | Front                                                                                                                                                          |
| Cylinder types with adapter: | Profile cylinder<br>Roundbody cylinder<br>Dove-tail groove cylinder<br>SMC rail cylinder CDQ2 (T-Slot)<br>SMC rail cylinder ECDQ2 (T-Slot)<br>Tie rod cylinder |
| Housing length:              | 24 mm                                                                                                                                                          |
| Switching frequency typ.:    | 1,000 Hz                                                                                                                                                       |
| Cylinder type:               | T-slot                                                                                                                                                         |

<sup>1)</sup> According to EN40050

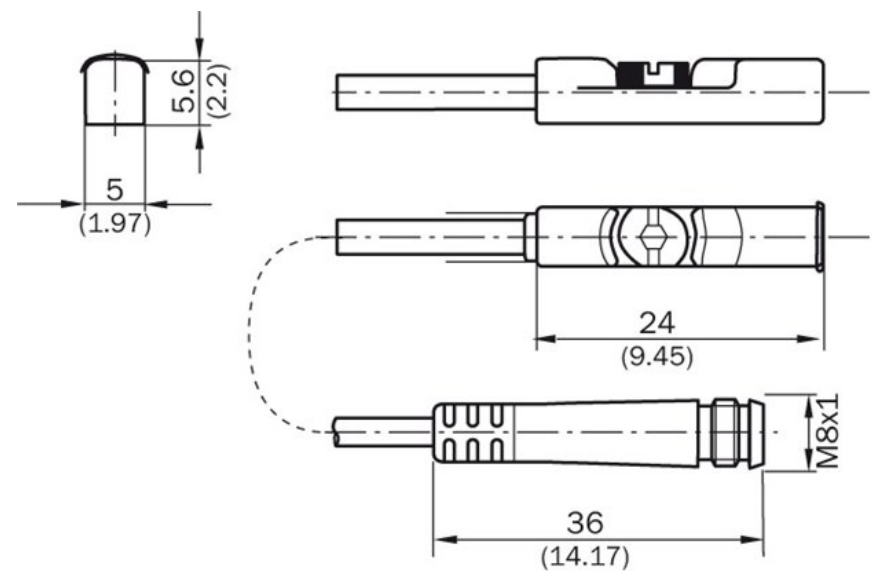
## **Mechanics/electronics**

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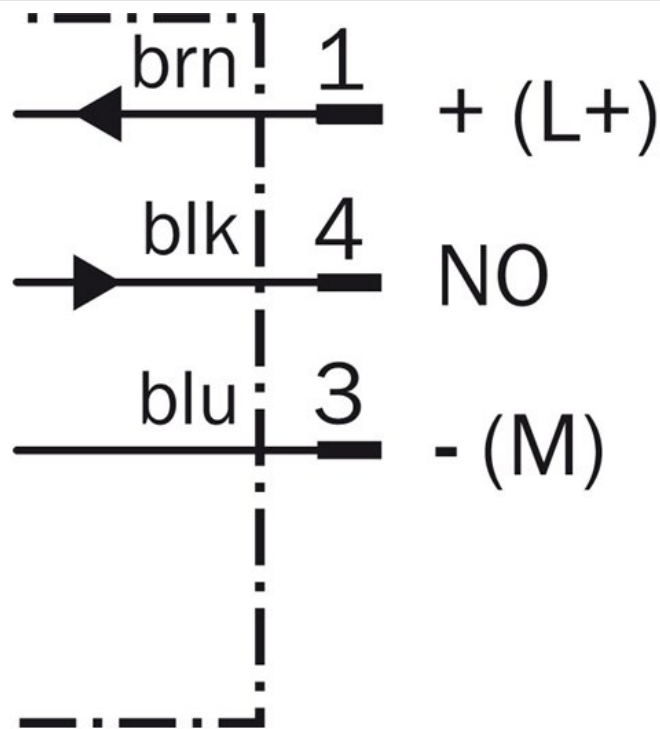
|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Connection type:                  | Cable with connector M8, 3-pin, 0.3 m |
| Supply voltage:                   | 10 V DC ... 30 V DC                   |
| Power consumption:                | $\leq 10 \text{ mA}$ <sup>1)</sup>    |
| Voltage drop:                     | $\leq 2.2 \text{ V}$                  |
| Output current $I_a$ :            | $\leq 200 \text{ mA}$                 |
| Hysteresis:                       | $> 0.5 \text{ mT}$                    |
| Repeatability:                    | $\leq 0.1 \text{ mT}$ <sup>2)</sup>   |
| EMC:                              | According to EN 60947-5-2             |
| Cable material:                   | PUR                                   |
| Reverse polarity protection:      | ✓                                     |
| Short-circuit protection:         | ✓                                     |
| Housing material:                 | Plastic                               |
| Housing cap material:             | PA12                                  |
| Sensing face material:            | Plastic                               |
| Ambient operating temperature:    | -30 °C ... 80 °C                      |
| Power-up pulse protection:        | ✓                                     |
| Thread size:                      | M8                                    |
| Magnetic field sensitivity, min.: | 2.6 mT                                |
| Overrun distance typ.:            | 3 mm                                  |
| Shock/vibration:                  | 30 g, 11 ms/10 ... 55 Hz, 1 mm        |

<sup>1)</sup> Without load    <sup>2)</sup>  $U_b$  and  $T_a$  constant

Dimensional drawing



Connection diagram



## Connection type

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**Australia**

Phone +61 3 9457 0600  
1800 334 802 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail sac@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Ceská Republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail kundenservice@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6801000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 3358 1341  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederlands**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail austefjord@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail admin@sicksgp.com.sg

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886-2-2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 8865 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 800-325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)