



## Magnetic Cylinder Sensors Sensors for T-slot cylinders

MZT8-28VPS-KR0



**Model Name** > [MZT8-28VPS-KR0](#)  
**Part No.** > [1048050](#)



#### 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:                 | PNP                                                                                                                                                            |
| 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                                                                                                                                                         |

1) According to EN40050

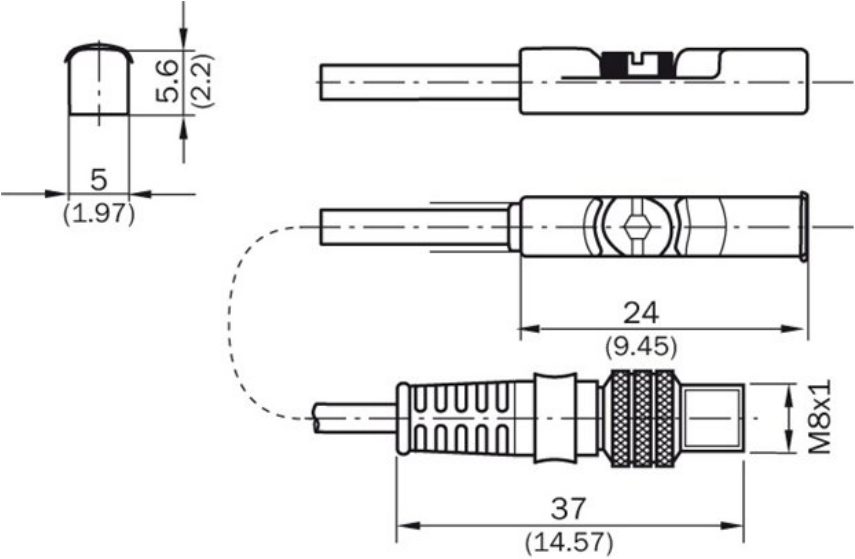
## Mechanics/electronics

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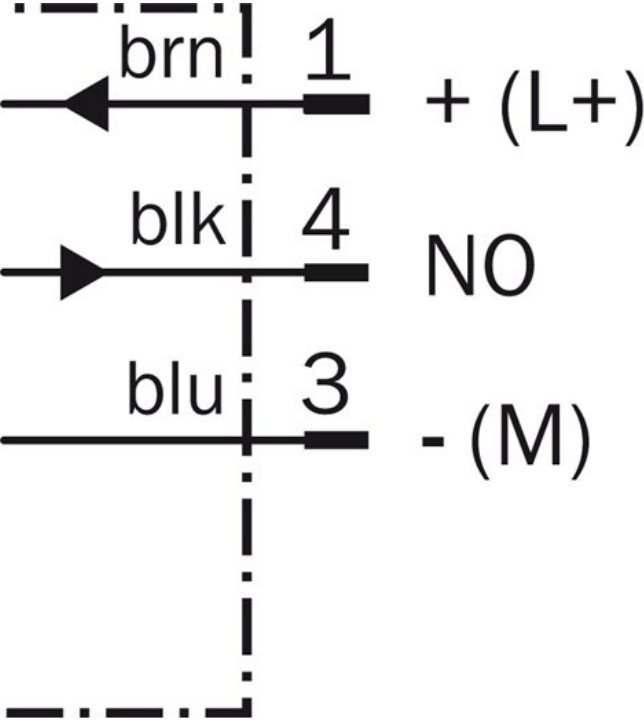
|                                   |                                                          |
|-----------------------------------|----------------------------------------------------------|
| Connection type:                  | Cable with connector M8, 3-pin, with knurled nuts, 0.5 m |
| Supply voltage:                   | 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.: | 2.8 mT                                                   |
| Overrun distance typ.:            | 9 mm                                                     |
| Shock/vibration:                  | 30 g, 11 ms/10 ... 55 Hz, 1 mm                           |

1) Without load    2)  $U_b$  and  $T_a$  constant

Dimensional drawing

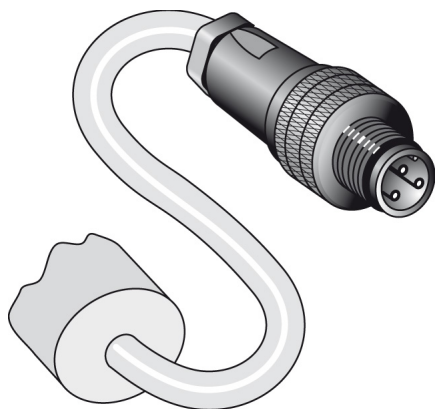


Connection diagram



## Connection type

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