



## Magnetic Cylinder Sensors Sensors for T-slot cylinders

MZT1-03VPS-KU0



**Model Name** > [MZT1-03VPS-KU0](#)  
**Part No.** > [1027621](#)



#### At a glance

- Compact housing design
- LED function indicator
- IP 67 enclosure rating
- Magnetoresistive (GMR) element
- 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

- Economic solution providing reliable switching performance
- Drop-in T-slot mounting from above makes assembly easy
- Easy installation with Allen wrench
- Resistant to shock, vibration and liquids, enlarging sensor life time



#### Features

|                              |                                                                                                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output type:                 | PNP                                                                                                                                                            |
| Output function:             | NO                                                                                                                                                             |
| Electrical wiring:           | DC 3-wire                                                                                                                                                      |
| Enclosure rating:            | IP 67 <sup>1)</sup>                                                                                                                                            |
| 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:              | 30.5 mm                                                                                                                                                        |
| Switching frequency typ.:    | 5,000 Hz                                                                                                                                                       |
| Cylinder type:               | T-slot                                                                                                                                                         |

<sup>1)</sup> According to EN 60529

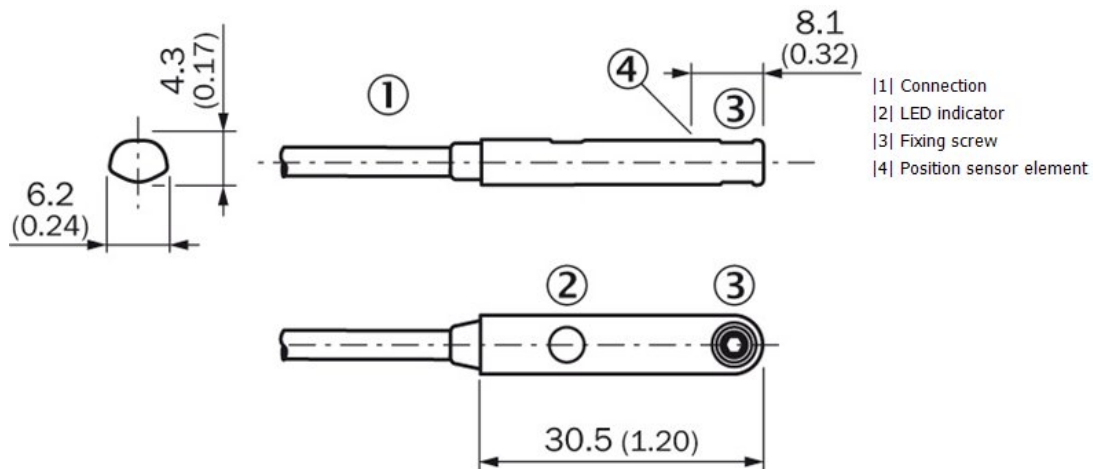
#### Mechanics/electronics

|                                 |                       |
|---------------------------------|-----------------------|
| Connection type:                | Cable, 3-wire, 2 m    |
| Supply voltage:                 | 10 V DC ... 30 V DC   |
| Power consumption:              | ≤ 10 mA <sup>1)</sup> |
| Voltage drop:                   | ≤ 2 V <sup>2)</sup>   |
| Output current I <sub>a</sub> : | ≤ 100 mA              |

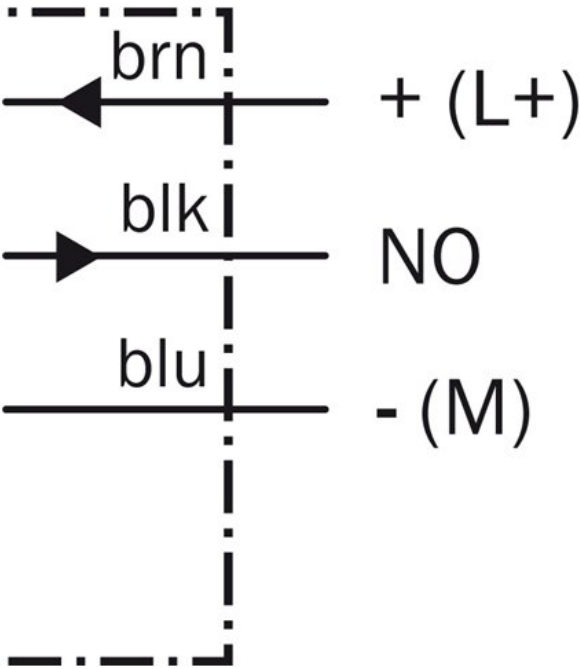
|                                   |                                      |
|-----------------------------------|--------------------------------------|
| Hysteresis:                       | $\leq 0.5 \text{ mT}$                |
| Repeatability:                    | $\leq 0.1 \text{ mT}$ <sup>3)</sup>  |
| EMC:                              | According to EN 60947-5-2            |
| Cable material:                   | PUR                                  |
| Conductor cross-section:          | $0.14 \text{ mm}^2$                  |
| Reverse polarity protection:      | ✓                                    |
| Short-circuit protection:         | ✓                                    |
| Housing material:                 | Plastic                              |
| Sensing face material:            | Plastic                              |
| Ambient operating temperature:    | $-25 \text{ °C} \dots 75 \text{ °C}$ |
| Power-up pulse protection:        | ✓                                    |
| Magnetic field sensitivity, min.: | $\leq 2.8 \text{ mT}$                |
| Output indicator:                 | ✓                                    |
| Overrun distance typ.:            | 9 mm                                 |
| Shock/vibration:                  | 30 g, 11 ms/10 ... 55 Hz, 1 mm       |

1) Without load    2) At  $I_{\text{max}}$     3)  $U_b$  and  $T_a$  constant

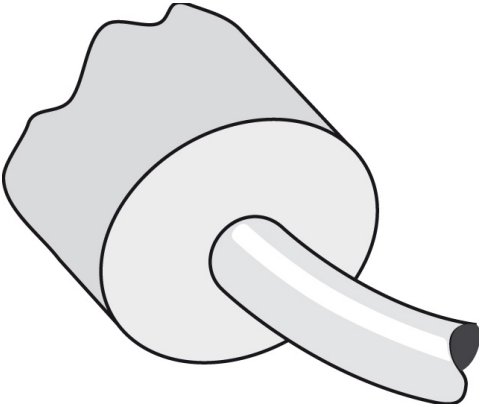
## Dimensional drawing



Connection diagram



Connection type



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