Magnetic Cylinder Sensors Sensors for T-slot cylinders

MZT8-03VPS-KQ0







Model Name > MZT8-03VPS-KQ0

Part No.

> 1044460



## At a glance

- Fits into all commonly used cylinders, linear slides and grippers with T-slots and it can be also applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets
- Complete range with PNP/ NPN, PUR and PVC cable , M8 and M12 connector ٠
- · Combined Allen and flathead installation screw
- · Very short sensor housing to install on short stroke cylinders
- · LED function indicator
- IP 67 / IP 68 / IP 69K enclosure rating (depending on type)

### Your benefits

- · Best-in-class switching performance for precise piston position
- Reduced maintenance cost as the sensor keeps its position under shock and vibration and does not move out
- Increased machine throughput thanks to SICK's proprietary GMR technology (giant magneto resistive) as well as the SICK-ASIC (application specific integrated circuit) that ensure precise one-time switching while eliminating false signals
- Flexible installation via Allen wrench or flathead screwdriver
- Time saving single-hand mounting with ¼-turn installation.
- Convenient installation and sensor replacement due to drop-in installation installer does not need to disassemble the cylinder from the machine for sensor replacement.
- Extremely rugged housing rated for IP67 respectively IP 68 and IP 69K, ٠ enlarging sensor life time

### Features

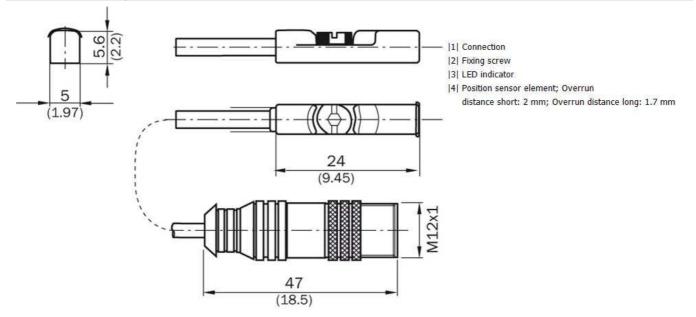
| Switching frequency typ.:            | 1,000 Hz   |
|--------------------------------------|--|
| Output type:                         | PNP  |
| Output function:                     | NO   |
| Electrical wiring:                   | DC 3-wire  |
| Cylinder type:                       | T-slot   |
| Cylinder types with adapter:         | Profile cylinder<br>Roundbody cylinder<br>SMC rail cylinder CDQ2<br>SMC rail cylinder ECDQ2<br>Tie rod cylinder<br>Cylinders with dovetail slots |
| Housing length:<br>Enclosure rating: | 24 mm<br>IP 68 <sup>1)</sup>   |

# Mechanics/electronics

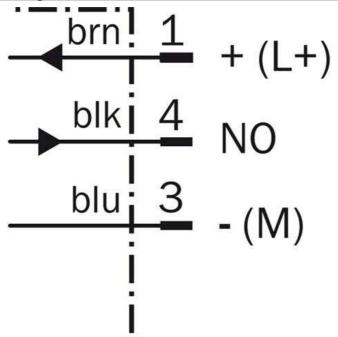
| Connection type:  | Cable with connector M12, 3-pin, 0.3 m |
|---|--|
| Thread size:  | M12                                    |
| Supply voltage:   | 10 V DC 30 V DC                        |
| Power consumption:  | ≤ 10 mA <sup>1)</sup>                  |
| Voltage drop:   | ≤ 2.2 V                                |
| Output current la:  | ≤ 200 mA                               |
| EMC:  | According to EN 60947-5-2              |
| Cable material:   | PUR                                    |
| Conductor cross-section:                                    | 14 mm²                                 |
| Reverse polarity protection:                                | $\checkmark$                           |
| Short-circuit protection:                                   | $\checkmark$                           |
| Housing material:   | Plastic                                |
| Housing cap material:                                       | PA12                                   |
| Power-up pulse protection:                                  | $\checkmark$                           |
| Repeatability:  | ≤ 0.1 mT <sup>2)</sup>                 |
| Overrun distance typ.:                                      | 3 mm                                   |
| Shock and vibration resistance:                             | 30 g, 11 ms ∕ 10 55 Hz, 1 mm           |
| Ambient operating temperature:                              | -30 °C +80 °C                          |
| Protection class:   | 111                                    |
| Hysteresis typ.:  | > 0.5 mT                               |
| Magnetic field sensitivity, typ.:                           | 2.6 mT                                 |
| <sup>1)</sup> Without load <sup>2)</sup> Ub and Ta constant |  |

Magnetic Cylinder Sensors

## Dimensional drawing



Connection diagram



**Connection type** 



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