



# MZT8-1V9PS-KQ0S34

MZT8

SENSORS FOR T-SLOT CYLINDERS

**SICK**  
Sensor Intelligence.



### Ordering information

| Type              | Part no. |
|-------------------|----------|
| MZT8-1V9PS-KQ0S34 | 1101002  |

Other models and accessories → [www.sick.com/MZT8](http://www.sick.com/MZT8)



### Detailed technical data

#### Features

|                                    |  |
|------------------------------------|--|
| <b>Cylinder type</b>               | T-slot   |
| <b>Cylinder types with adapter</b> | Profile cylinder<br>Tie rod cylinder<br>Round body cylinder<br>Dovetail groove cylinder<br>SMC rail CDQ2<br>SMC rail ECDQ2 |
| <b>Housing length</b>              | 24 mm  |
| <b>Switching output</b>            | PNP  |
| <b>Switching frequency</b>         | 1,000 Hz   |
| <b>Output function</b>             | NO   |
| <b>Electrical wiring</b>           | DC 3-wire  |
| <b>Enclosure rating</b>            | IP69K <sup>1)</sup>  |
| <b>Special features</b>            | Stainless steel connector  |

<sup>1)</sup> According to DIN 40050 (IP 69K).

#### Mechanics/electronics

|   |                     |
|---|---------------------|
| <b>Supply voltage</b>                   | 10 V DC ... 30 V DC |
| <b>Power consumption</b>                | 10 mA, without load |
| <b>Voltage drop</b>                     | ≤ 2.2 V             |
| <b>Continuous current I<sub>a</sub></b> | ≤ 200 mA            |
| <b>Protection class</b>                 | III                 |
| <b>Time delay before availability</b>   | 25 ms               |
| <b>Response sensitivity, typ.</b>       | 1.9 mT              |
| <b>Overrun distance, typ.</b>           | 9 mm                |

<sup>1)</sup> Supply voltage U<sub>B</sub> and constant ambient temperature T<sub>a</sub>.

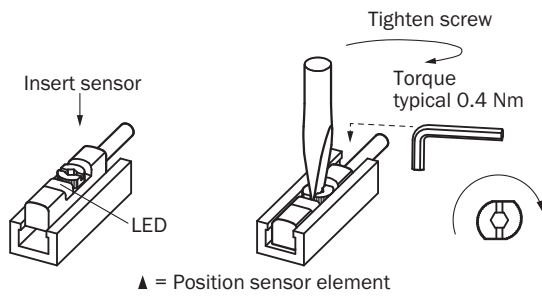
|                                       |  |
|---------------------------------------|--|
| <b>Hysteresis, typ.</b>               | 0.7 mT   |
| <b>Reproducibility</b>                | ≤ 0.1 mT <sup>1)</sup>   |
| <b>Reverse polarity protection</b>    | Yes  |
| <b>Short-circuit protection</b>       | Yes  |
| <b>Status indicator LED</b>           | Yes  |
| <b>Power-up pulse protection</b>      | Yes  |
| <b>Ambient operating temperature</b>  | -30 °C ... +80 °C  |
| <b>Shock and vibration resistance</b> | 30 g, 11 ms / 10 ... 55 Hz, 1 mm   |
| <b>EMC</b>                            | According to EN 60947-5-2  |
| <b>Connection type</b>                | Cable with M12 male connector, 4-pin, 0.3 m  |
| <b>Connection type Detail</b>         |  |
| Deep-freeze property                  | Do not bend below 0 °C   |
| Conductor cross section               | 0.14 mm <sup>2</sup>   |
| Cable diameter                        | Ø 2.9 mm   |
| Bending radius                        | With fixed installation > 3 x cable diameter<br>For flexible use > 10 x cable diameter |
| Cable outlet                          | Axial  |
| <b>Material</b>                       |  |
| Housing                               | Plastic, PA12  |
| Male connector                        | Stainless steel  |
| Cable                                 | PVC  |
| <b>UL File No.</b>                    | NRKH.E181493 & NRKH7.E181493   |

<sup>1)</sup> Supply voltage  $U_B$  and constant ambient temperature  $T_a$ .

## Classifications

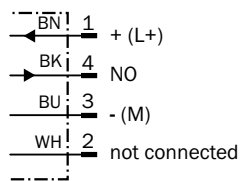
|                       |          |
|-----------------------|----------|
| <b>ECLASS 5.0</b>     | 27270104 |
| <b>ECLASS 5.1.4</b>   | 27270104 |
| <b>ECLASS 6.0</b>     | 27270104 |
| <b>ECLASS 6.2</b>     | 27270104 |
| <b>ECLASS 7.0</b>     | 27270104 |
| <b>ECLASS 8.0</b>     | 27270104 |
| <b>ECLASS 8.1</b>     | 27270104 |
| <b>ECLASS 9.0</b>     | 27270104 |
| <b>ECLASS 10.0</b>    | 27270104 |
| <b>ECLASS 11.0</b>    | 27270104 |
| <b>ECLASS 12.0</b>    | 27274301 |
| <b>ETIM 5.0</b>       | EC002544 |
| <b>ETIM 6.0</b>       | EC002544 |
| <b>ETIM 7.0</b>       | EC002544 |
| <b>ETIM 8.0</b>       | EC002544 |
| <b>UNSPSC 16.0901</b> | 39122230 |

### Installation note



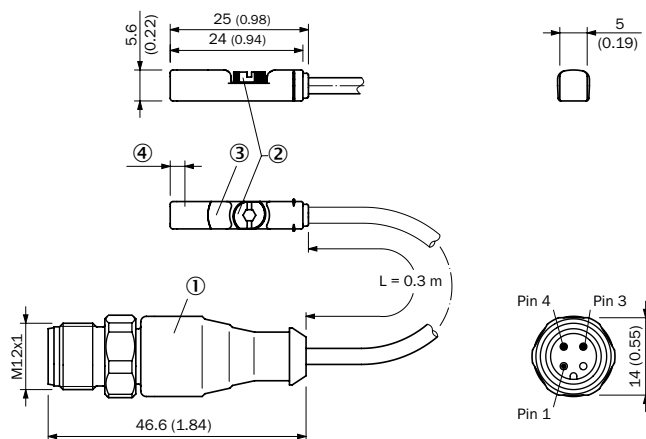
### Connection diagram

Cd-011



### Dimensional drawing (Dimensions in mm (inch))

Cable with M12 male connector




- ① Connection
- ② Fixing screw SW 2.0
- ③ Display LED
- ④ Sensor element position; short overrun distance (3 mm): 2.25 mm, long overrun distance (9 mm): 1.5 mm

## Recommended accessories

Other models and accessories → [www.sick.com/MZT8](http://www.sick.com/MZT8)

|   | Brief description  | Type               | Part no. |
|---|--|--------------------|----------|
| Brackets for cylinder sensors   |  |                    |          |
|    | Mounting bracket for cylinder with dovetail slot, Aluminum, without mounting hardware  | BEF-KHZ-ST1        | 2022703  |
|    | Mounting bracket for integrated profile cylinder/tie-rod cylinder, zinc diecast, mounting hardware included  | BEF-KHZ-PT1        | 2022702  |
|    | 1 piece, Mounting bracket on round body cylinder with piston diameter of 12 mm, ambient temperature min 0 °C max 50 °C, plastic, Aluminum  | BEF-KHZ-RT-12      | 2077681  |
|   | 1 piece, Mounting bracket on round body cylinder with piston diameter of 16 mm, ambient temperature min 0 °C max 50 °C, plastic, Aluminum  | BEF-KHZ-RT-16      | 2077680  |
|   | 1 piece, Mounting bracket on round body cylinder with piston diameter of 20 mm, ambient temperature min 0 °C max 50 °C, plastic, Aluminum  | BEF-KHZ-RT-20      | 2077679  |
|   | 1 piece, Mounting bracket on round body cylinder with piston diameter of 25 mm, ambient temperature min 0 °C max 50 °C, plastic, Aluminum  | BEF-KHZ-RT-25      | 2077678  |
|   | 1 piece, Mounting bracket on round body cylinder with piston diameter of 32 mm, ambient temperature min 0 °C max 50 °C, plastic, Aluminum  | BEF-KHZ-RT-32      | 2077677  |
|   | 1 piece, Mounting bracket on round body cylinder with piston diameter of 40 mm, ambient temperature min 0 °C max 50 °C, plastic, Aluminum  | BEF-KHZ-RT-40      | 2077676  |
|   | 1 piece, Mounting bracket on round body cylinder with piston diameter of 50 mm, ambient temperature min 0 °C max 50 °C, plastic, Aluminum  | BEF-KHZ-RT-50      | 2077675  |
|   | 1 piece, Mounting bracket on round body cylinder with piston diameter of 63 mm, ambient temperature min 0 °C max 50 °C, plastic, Aluminum  | BEF-KHZ-RT-63      | 2077674  |
|  | 1 piece, Mounting bracket on round body cylinder with piston diameter of 8 mm ... 130 mm, ambient temperature min -30 °C max 80 °C, stainless steel, Zinc cast   | BEF-KHZ-RT1-130    | 2077684  |
|   | 1 piece, Mounting bracket on round body cylinder with piston diameter of 8 mm ... 25 mm, ambient temperature min -30 °C max 80 °C, stainless steel, Zinc cast  | BEF-KHZ-RT1-25     | 2077682  |
|   | 1 piece, Mounting bracket on round body cylinder with piston diameter of 8 mm ... 63 mm, ambient temperature min -30 °C max 80 °C, stainless steel, Zinc cast  | BEF-KHZ-RT1-63     | 2077683  |
|  | Mounting bracket for mounting on SMC rails CDQ2 (T-slot), Aluminum, without mounting hardware  | BEF-KHZ-TT2        | 2046440  |
|  | Mounting bracket for mounting on SMC rails ECDQ2 (T-slot), Aluminum, without mounting hardware   | BEF-KHZ-TT1        | 2046439  |
| Device protection (mechanical)  |  |                    |          |
|  | Protective adapter, die-cast zinc, mounting hardware included  | BEF-SG-MRZT        | 2077201  |
| Plug connectors and cables  |  |                    |          |
|  | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 3-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 2 m, 3-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Application:</b> Zones with oils and lubricants, Drag chain operation, Robot</li> </ul> | YF2A13-020UB1XLEAX | 2095604  |

|   | Brief description  | Type               | Part no. |
|---|--|--------------------|----------|
|  | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 3-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 5 m, 3-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Application:</b> Zones with oils and lubricants, Drag chain operation, Robot</li> </ul> | YF2A13-050UB1XLEAX | 2095605  |
|   | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 3-pin, angled, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 2 m, 3-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Application:</b> Zones with oils and lubricants, Drag chain operation, Robot</li> </ul>   | YG2A13-020UB1XLEAX | 2095752  |
|   | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 3-pin, angled, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 5 m, 3-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Application:</b> Zones with oils and lubricants, Drag chain operation, Robot</li> </ul>   | YG2A13-050UB1XLEAX | 2095753  |

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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