

MZT7-03VPS-KRTS13

MZT7

CYLINDER SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | part no. |
|-------------------|----------|
| MZT7-03VPS-KRTS13 | 1104066 |

Other models and accessories → www.sick.com/MZT7

Detailed technical data

Features

| | |
|------------------------------------|--|
| Cylinder type | T-slot |
| Cylinder types with adapter | Profile cylinder Tie rod cylinder Round body cylinder Dovetail groove cylinder SMC rail CDQ2 SMC rail ECDQ2 |
| Housing length | 29.5 mm |
| Switching output | 2 x PNP |
| Switching frequency | 1,000 Hz |
| Output function | 2 x N/O contact |
| Electrical wiring | DC 3-wire |
| Enclosure rating | IP65 ¹⁾ IP67 |
| Special features | Two sensor heads on one plug |

¹⁾ According to EN 60529.

Mechanics/electronics

| | |
|---|------------------------|
| Supply voltage | 10 V DC ... 30 V DC |
| Power consumption | 8 mA, without load |
| Voltage drop | ≤ 2 V |
| Continuous current I_a | ≤ 100 mA |
| Protection class | III |
| Response sensitivity, typ. | 3 mT |
| Overrun distance, typ. | 10 mm |
| Hysteresis, typ. | < 0.8 mT |
| Reproducibility | ≤ 0.1 mT ¹⁾ |
| Reverse polarity protection | Yes |
| Short-circuit protection | Yes |

¹⁾ Supply voltage U_B and constant ambient temperature T_a.

| | |
|---------------------------------------|---|
| Status indicator LED | Yes |
| Teach-in | No |
| Ambient operating temperature | -30 °C ... +80 °C |
| Shock and vibration resistance | 30 g, 11 ms / 10 ... 55 Hz, 1 mm |
| EMC | According to EN 60947-5-2 |
| Connection type | Cable with connector M8, 4-pin, with knurled nut, drag chain use, 0.3 m |
| Connection type Detail | |
| Bending radius | With fixed installation > 3 x cable diameter |
| | For flexible use > 10 x cable diameter |
| Torsion force | ± 270° / 10 cm |
| Torsion cycles | > 2,000,000 |
| Cable outlet | Axial |
| Material | |
| Housing | Plastic |
| Cable | PUR |
| UL File No. | NRKH.E181493 & NRKH7.E181493 |

¹⁾ Supply voltage U_B and constant ambient temperature T_a.

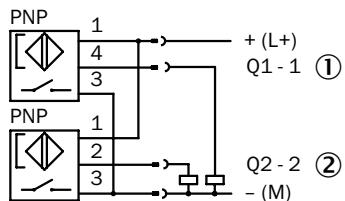
Certificates

| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China-RoHS | ✓ |
| cULus certificate | ✓ |

Classifications

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

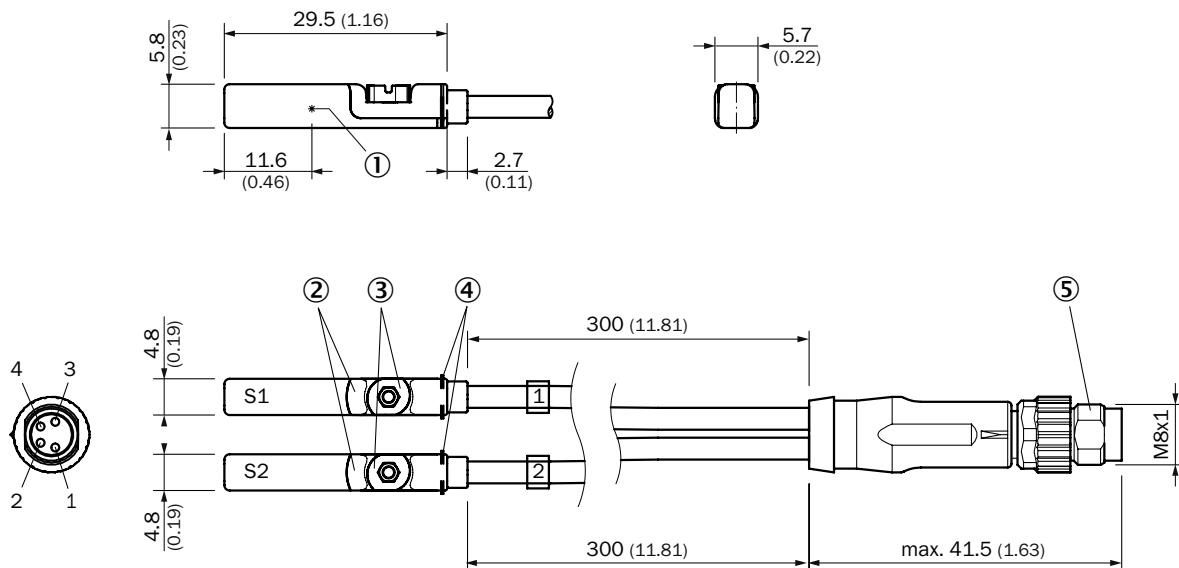
Connection diagram Cd-420



① sensor head 1

② sensor head 2

Dimensional drawing Cable with connector M8



Dimensions in mm (inch)

- ① Position sensor element
- ② Display LED
- ③ Fixing screw SW 2.5
- ④ retaining ribs
- ⑤ Connection

Recommended accessories

Other models and accessories → www.sick.com/MZT7

| | Brief description | Type | part no. |
|---|---|-----------------|----------|
| Mounting systems | | | |
|  | <ul style="list-style-type: none">Description: Mounting bracket on round body cylinder with piston diameter of 8 mm ... 130 mm, ambient temperature min -30 °C max 80 °CMaterial: Stainless steel, Zinc castDetails: Stainless steel, Zinc castPacking unit: 1 pieceSuitable for: T-slot | BEF-KHZ-RT1-130 | 2077684 |
|  | <ul style="list-style-type: none">Description: Mounting bracket on round body cylinder with piston diameter of 8 mm ... 25 mm, ambient temperature min -30 °C max 80 °CMaterial: Stainless steel, Zinc castDetails: Stainless steel, Zinc castPacking unit: 1 pieceSuitable for: T-slot | BEF-KHZ-RT1-25 | 2077682 |
|  | <ul style="list-style-type: none">Description: Mounting bracket on round body cylinder with piston diameter of 8 mm ... 63 mm, ambient temperature min -30 °C max 80 °CMaterial: Stainless steel, Zinc castDetails: Stainless steel, Zinc castPacking unit: 1 pieceSuitable for: T-slot | BEF-KHZ-RT1-63 | 2077683 |
|  | <ul style="list-style-type: none">Description: Mounting bracket on round body cylinder with piston diameter of 12 mm, ambient temperature min 0 °C max 50 °CDimensions (W x H x L): 22.4 mMaterial: Plastic, AluminumDetails: Plastic, AluminumPacking unit: 1 pieceSuitable for: T-slot | BEF-KHZ-RT-12 | 2077681 |
|  | <ul style="list-style-type: none">Description: Mounting bracket on round body cylinder with piston diameter of 16 mm, ambient temperature min 0 °C max 50 °CDimensions (W x H x L): 26.6 mMaterial: Plastic, AluminumDetails: Plastic, AluminumPacking unit: 1 pieceSuitable for: T-slot | BEF-KHZ-RT-16 | 2077680 |
|  | <ul style="list-style-type: none">Description: Mounting bracket on round body cylinder with piston diameter of 20 mm, ambient temperature min 0 °C max 50 °CDimensions (W x H x L): 30.6 mMaterial: Plastic, AluminumDetails: Plastic, AluminumPacking unit: 1 pieceSuitable for: T-slot | BEF-KHZ-RT-20 | 2077679 |
|  | <ul style="list-style-type: none">Description: Mounting bracket on round body cylinder with piston diameter of 25 mm, ambient temperature min 0 °C max 50 °CDimensions (W x H x L): 35.7 mMaterial: Plastic, AluminumDetails: Plastic, AluminumPacking unit: 1 pieceSuitable for: T-slot | BEF-KHZ-RT-25 | 2077678 |
|  | <ul style="list-style-type: none">Description: Mounting bracket on round body cylinder with piston diameter of 32 mm, ambient temperature min 0 °C max 50 °CDimensions (W x H x L): 42.9 mMaterial: Plastic, AluminumDetails: Plastic, AluminumPacking unit: 1 pieceSuitable for: T-slot | BEF-KHZ-RT-32 | 2077677 |
|  | <ul style="list-style-type: none">Description: Mounting bracket on round body cylinder with piston diameter of 40 mm, ambient temperature min 0 °C max 50 °CDimensions (W x H x L): 50.9 mMaterial: Plastic, AluminumDetails: Plastic, AluminumPacking unit: 1 piece | BEF-KHZ-RT-40 | 2077676 |

| | Brief description | Type | part no. |
|---|---|---------------|-----------------|
|  | <ul style="list-style-type: none"> Suitable for: T-slot Description: Mounting bracket on round body cylinder with piston diameter of 50 mm, ambient temperature min 0 °C max 50 °C Dimensions (W x H x L): 61.8 m Material: Plastic, Aluminum Details: Plastic, Aluminum Packing unit: 1 piece Suitable for: T-slot | BEF-KHZ-RT-50 | 2077675 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket on round body cylinder with piston diameter of 63 mm, ambient temperature min 0 °C max 50 °C Dimensions (W x H x L): 73.9 m Material: Plastic, Aluminum Details: Plastic, Aluminum Packing unit: 1 piece Suitable for: T-slot | BEF-KHZ-RT-63 | 2077674 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket for integrated profile cylinder/tie-rod cylinder Material: Zinc diecast Details: Zinc diecast Items supplied: Mounting hardware included | BEF-KHZ-PT1 | 2022702 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket for mounting on SMC rails ECDQ2 (T-slot) Material: Aluminum Details: Aluminum Items supplied: Without mounting hardware | BEF-KHZ-TT1 | 2046439 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket for mounting on SMC rails CDQ2 (T-slot) Material: Aluminum Details: Aluminum Items supplied: Without mounting hardware | BEF-KHZ-TT2 | 2046440 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket for cylinder with dovetail slot Material: Aluminum Details: Aluminum Items supplied: Without mounting hardware | BEF-KHZ-ST1 | 2022703 |
| device protection and care | | | |
|  | <ul style="list-style-type: none"> Description: Protective adapter Material: Zinc diecast Items supplied: Mounting hardware included Suitable for: MZT7, RZT7, MZT8 | BEF-SG-MRZT | 2077201 |

SICK AT A GLANCE

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We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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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