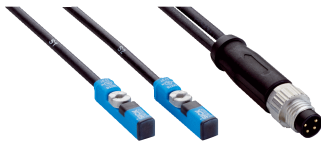


# MZT8-03VPS-KRT

MZT8 Twin

CYLINDER SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
MZT8-03VPS-KRT	1087117

Other models and accessories → [www.sick.com/MZT8\\_Twin](http://www.sick.com/MZT8_Twin)



### Detailed technical data

#### Features

<b>Cylinder type</b>	T-slot
<b>Cylinder types with adapter</b>	Profile cylinder Tie rod cylinder Round body cylinder Dovetail groove cylinder SMC rail CDQ2 SMC rail ECDQ2
<b>Housing length</b>	24 mm
<b>Switching output</b>	2 x PNP
<b>Switching frequency</b>	1,000 Hz
<b>Output function</b>	2 x N/O contact
<b>Electrical wiring</b>	DC 4-wire
<b>Enclosure rating</b>	IP68 <sup>1)</sup>
<b>Special features</b>	Two sensor heads on one plug

<sup>1)</sup> According to EN 60529 (IP 67 / IP 68).

#### 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>	2.6 mT
<b>Overrun distance, typ.</b>	3 mm <sup>1)</sup>
<b>Hysteresis, typ.</b>	≤ 0.5 mT
<b>Reproducibility</b>	≤ 0.1 mT <sup>2)</sup>
<b>Reverse polarity protection</b>	Yes

<sup>1)</sup> Distance covered by the encoder magnet while the sensor outputs a switching signal.

<sup>2)</sup> Supply voltage U<sub>B</sub> and constant ambient temperature T<sub>a</sub>.

<b>Short-circuit protection</b>	Yes
<b>Status indicator LED</b>	Yes
<b>Teach-in</b>	No
<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 plug, M8, 4-pin, with knurled screws, 0.5 m
<b>Connection type Detail</b>	
Conductor cross section	0.14 mm <sup>2</sup>
Cable diameter	Ø 2.9 mm
Bending radius	With fixed installation > 8 x cable diameter For flexible use > 12 x cable diameter
Cable outlet	Axial
<b>Material</b>	
Housing	Plastic, PA12
Cable	PUR
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

1) Distance covered by the encoder magnet while the sensor outputs a switching signal.

2) Supply voltage  $U_B$  and constant ambient temperature  $T_a$ .

### Safety-related parameters

<b>MTTF<sub>D</sub></b>	1,144 years
<b>DC<sub>avg</sub></b>	0 %
<b>T<sub>M</sub> (mission time)</b>	20 years

### Certificates

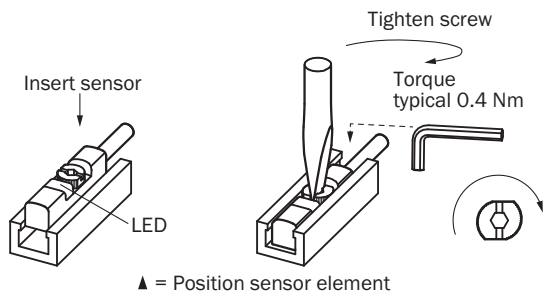
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China RoHS</b>	✓

### Classifications

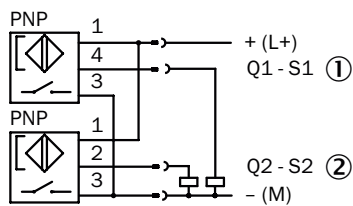
<b>ECLASS 5.0</b>	27270104
<b>ECLASS 5.1.4</b>	27270104
<b>ECLASS 6.0</b>	27270104
<b>ECLASS 6.2</b>	27270104
<b>ECLASS 7.0</b>	27270104
<b>ECLASS 8.0</b>	27270104
<b>ECLASS 8.1</b>	27270104
<b>ECLASS 9.0</b>	27270104
<b>ECLASS 10.0</b>	27270104
<b>ECLASS 11.0</b>	27270104

<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

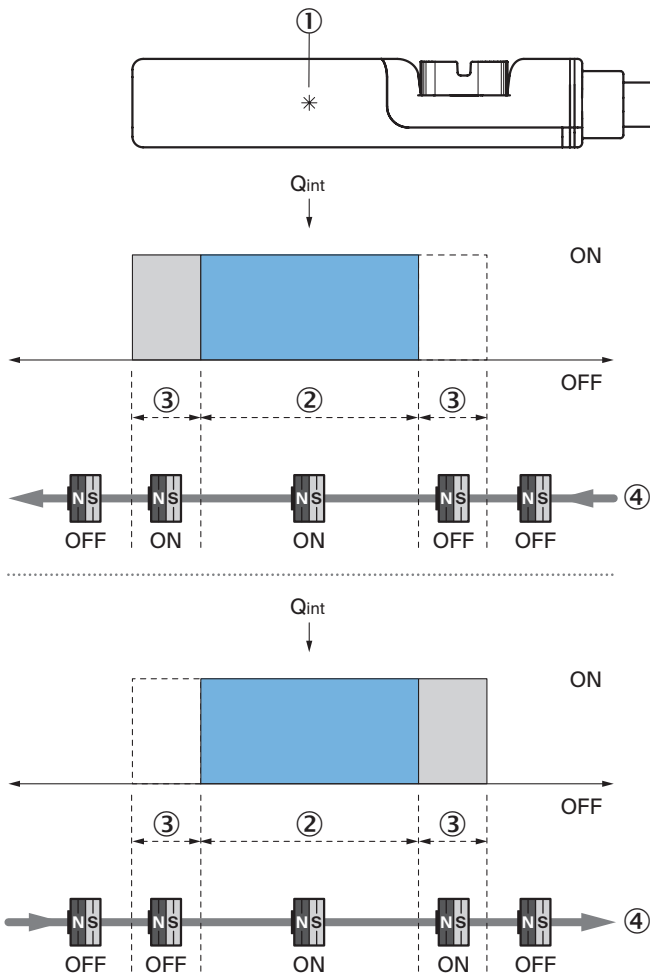


### Connection diagram Cd-398



- ① sensor head 1
- ② sensor head 2

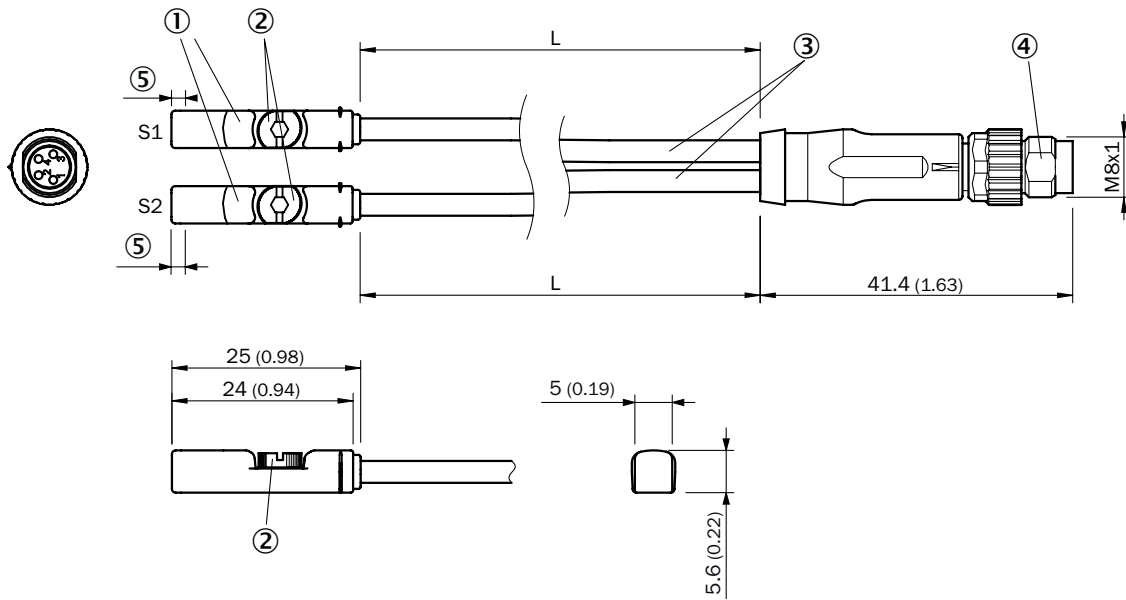
Functional principle Overrun distance



Note: Sensor housing may differ; representation corresponds to "NO contact" output function; overrun distance = switching point width + hysteresis

- ① Position sensor element
- ② Width of the switching point
- ③ Hysteresis
- ④ Direction of movement of the magnet

### Dimensional drawing





Dimensions in mm (inch)

- ① Display LED
- ② Fixing screw SW 2.0
- ③ cable
- ④ Connection
- ⑤ Sensor element position; short overrun distance (3 mm): 2.25 mm, long overrun distance (9 mm): 1.5 mm

Part no.	Type	L
1114713	MZT8-03VPS-KRTS37	100 mm
1095485	MZT8-2V8PS-KRTS33	300 mm
1087116	MZT8-03VPS-KRTS11	300 mm
1141434	MZT8-03VPSAKRTS42	300 mm
1087117	MZT8-03VPS-KRT	500 mm
1087118	MZT8-03VPS-KRTS12	750 mm

### Recommended accessories

Other models and accessories → [www.sick.com/MZT8\\_Twin](http://www.sick.com/MZT8_Twin)

Brief description	Type	part no.
<b>connectors and cables</b>		
 <ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M8, 4-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, 4-wire, PUR, halogen-free</li> <li><b>Application:</b> Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF8U14-050UA3XLEAX	2094792
 <ul style="list-style-type: none"> <li><b>Description:</b> Unshielded</li> <li><b>Connection type head A:</b> Male connector, M8, 4-pin, straight, A-coded</li> <li><b>Connection systems:</b> Screw-type terminals</li> <li><b>Permitted cross-section:</b> 0.14 mm<sup>2</sup> ... 0.5 mm<sup>2</sup></li> </ul>	STE-0804-G	6037323

## 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.

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.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)