



MZT8-03VPS-KRX

MZT8 ATEX

SENSORS FOR T-SLOT CYLINDERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
MZT8-03VPS-KRX	1073406

Other models and accessories → www.sick.com/MZT8_ATEX



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	24 mm
Switching output	PNP
Switching frequency	1,000 Hz
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67 ¹⁾

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

Mechanics/electronics

Supply voltage	10 V DC ... 26 V DC ¹⁾
Power consumption	10 mA ²⁾
Voltage drop	≤ 2.2 V
Continuous current I_a	≤ 50 mA ¹⁾
Ex area category	3G, 3D
Device labeling	II 3G Ex nA op is IIC T4 Gc X, II 3D Ex tc IIIC T135 °C Dc X
Response sensitivity, typ.	2.6 mT
Overrun distance, typ.	3 mm

¹⁾ Depend on ambient temperature. For details see operating instructions under „performance data of the sensor“.

²⁾ Without load.

³⁾ U_b and T_a constant.

Hysteresis, typ.	0.7 mT
Reproducibility	$\leq 0.1 \text{ mT}^{3)}$
Reverse polarity protection	✓
Short-circuit protection	✓
Power-up pulse protection	✓
Ambient operating temperature	-20 °C ... +50 °C
MTTFd: mean time to dangerous failure	2,289 years
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, 3-pin, with knurled nuts, drag chain use, 0.3 m
Connection type Detail	
Conductor cross-section	0.14 mm²
Cable diameter	Ø 2.9 mm
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, PA12
Cable	PUR
Items supplied	Safety clip

1) Depend on ambient temperature. For details see operating instructions under „performance data of the sensor“.

2) Without load.

3) Ub and Ta constant.

Safety-related parameters

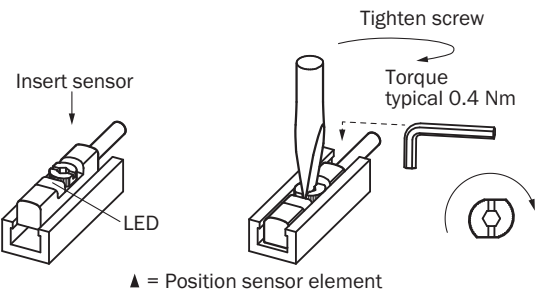
MTTF_D	2,289 years
DC_{avg}	0%

Classifications

ECI@ss 5.0	27270104
ECI@ss 5.1.4	27270104
ECI@ss 6.0	27270104
ECI@ss 6.2	27270104
ECI@ss 7.0	27270104
ECI@ss 8.0	27270104
ECI@ss 8.1	27270104
ECI@ss 9.0	27270104
ECI@ss 10.0	27270104
ECI@ss 11.0	27270104
ETIM 5.0	EC002544
ETIM 6.0	EC002544
ETIM 7.0	EC002544

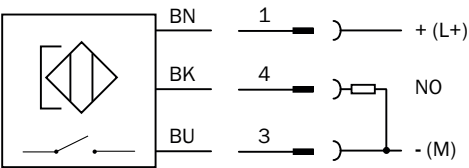
UNSPSC 16.0901	39122230
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Installation note



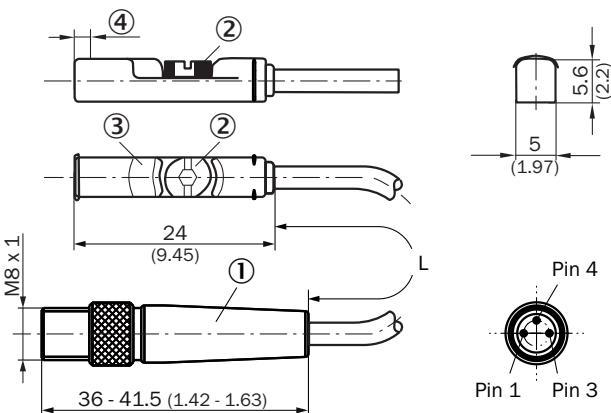
Connection diagram

Cd-308



Dimensional drawing (Dimensions in mm (inch))

Cable with connector M8, with knurled nuts



- ① Connection
- ② Fixing screw SW 2.0
- ③ Indication LED
- ④ Sensor element position; short overrun distance (3 mm): 2 mm, long overrun distance (9 mm): 1.7 mm

Part no.	Type	L	Number of cores
1070466	MZT8-2V8-N-KR0	500 mm	2
1073406	MZT8-03VPS-KRX	300 mm	3
1109959	MZT8-2V8PS-KRXS36	300 mm	3

Recommended accessories

Other models and accessories → www.sick.com/MZT8_ATEX

	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
	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			
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF8U13-020VA1XLEAX	2095860
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U13-050VA1XLEAX	2095884

	Brief description	Type	Part no.
	Head A: female connector, M8, 3-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG8U13-020VA1XLEAX	2096165
	Head A: female connector, M8, 3-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG8U13-050VA1XLEAX	2096166
	Head A: female connector, M8, 3-pin, straight Head B: - Cable: unshielded	DOS-0803-G	7902077
	Head A: female connector, M8, 3-pin, angled Head B: - Cable: unshielded	DOS-0803-W	7902078
	Head A: male connector, M8, 3-pin, straight Head B: - Cable: unshielded	STE-0803-G	6037322

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.”

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