Online data sheet

MZT8-03VPS-KQX

MZT8 ATEX

SENSORS FOR T-SLOT CYLINDERS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
MZT8-03VPS-KQX	1073407

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
Output type	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.	2.8 mT
Overrun distance, typ.	9 mm
Hysteresis, typ.	≤ 0.5 mT

[1] Depend on ambient temperature. For details see operating instructions under „performance data of the sensor“.
[2] Without load.
[3] Ub and Ta constant.

Reproducibility	≤ 0.1 mT [3]
Reverse polarity protection	✓
Short-circuit protection	✓
Power-up pulse protection	✓
Ambient operating temperature	–20 °C ... +50 °C
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
EMC	According to EN 60947-5-2
Housing material	Plastic, PA12
Connection type	Cable with connector M12, 3-pin, with knurled nuts, 0.3 m
Cable material	PVC
Conductor cross-section	0.14 mm²
UL File No.	NRKH.E181493

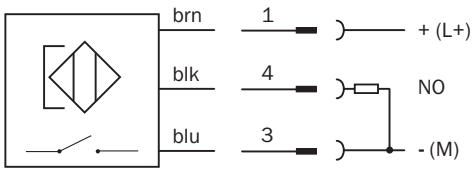
[1] Depend on ambient temperature. For details see operating instructions under „performance data of the sensor“.
[2] Without load.
[3] Ub and Ta constant.

Classifications

ECl@ss 5.0	27270104
ECl@ss 5.1.4	27270104
ECl@ss 6.0	27270104
ECl@ss 6.2	27270104
ECl@ss 7.0	27270104
ECl@ss 8.0	27270104
ECl@ss 8.1	27270104
ECl@ss 9.0	27270104
ETIM 5.0	EC002544
ETIM 6.0	EC002544
UNSPSC 16.0901	39122230

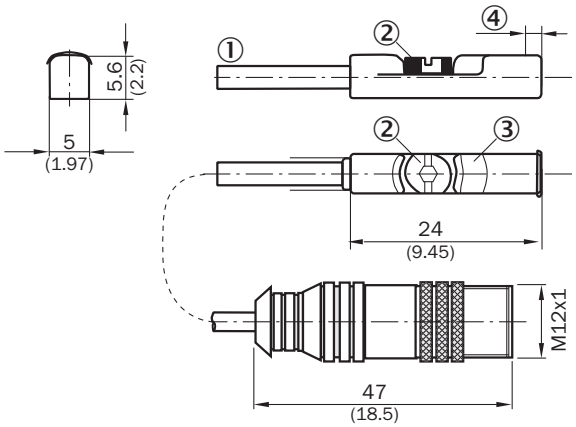
Connection diagram

Cd-308



Dimensional drawing (Dimensions in mm (inch))

Cable with M12 male connector



① Connection
② Fixing screw
③ Indication LED
④ Position of sensor element; short overrun distance: 2 mm; long overrun distance: 1.7 mm

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

	Brief description	Type	Part no.
	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
Modules and gateways			
	NAMUR isolatig amplifier, Cable fault detection, Switching outputs: 2 NO relay (1 per channel), Supply voltage: 24 V ... 230 V, Voltage type: AC/DC	EN2-2EX1	6041096
	NAMUR isolatig amplifier, Cable fault detection, Switching outputs: 2 NO relay (1 per channel), Supply voltage: 19,2 V ... 30 V, Voltage type: DC	EN2-2EX3	6041095
Plug connectors and cables			
	Head A: female connector, M12, 3-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m	DOL-1203-G05MC	6039076
	Head A: female connector, M12, 3-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m	DOL-1203-G10MC	6039077
	Head A: female connector, M12, 3-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m	DOL-1203-W05MC	6039079
	Head A: female connector, M12, 3-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m	DOL-1203-W10MC	6036752

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