Data sheet

MZ2Q-CSSPSKP0

MZ2Q-C

CYLINDER SENSORS

SICK
Sensor Intelligence.

Ordering information

Type	part no.
MZ2Q-CSSPSKP0	1042238

Other models and accessories ➜ www.sick.com/MZ2Q-C

Detailed technical data

Features

Cylinder type	C-slot
Preferred manufacturer slot	SMC Bimba
Detection zone	0 mm ... 50 mm
Cylinder types with adapter	SMC rail ECDQ2 SMC rail CDQ2
Housing length	19.5 mm
Switching output	2 x PNP
Output function	2 x N/O contact
Electrical wiring	DC 4-wire
Enclosure rating	IP67 [1]
Adjustment	
Teach-in control panel	Teaching in switching points 1 and 2

[1] According to EN 60529.

Mechanics/electronics

Detection zone	0 mm ... 50 mm
Supply voltage	12 V DC ... 30 V DC
Power consumption	Typ. 20 mA, without load
Voltage drop	≤ 2.2 V
Continuous current I_a	≤ 100 mA
Protection class	III
Hysteresis, typ.	1 mT
Reproducibility	≤ 0.1 mT [1]
Reverse polarity protection	Yes

[1] Supply voltage U_B and constant ambient temperature Ta.

Short-circuit protection	Yes
Status indicator LED	Yes
Teach-in	Yes
Power-up pulse protection	Yes
Ambient operating temperature	–20 °C ... +75 °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 M8 male connector, 4-pin, 0.3 m
Connection type Detail	
Conductor cross section	0.08 mm²
Cable diameter	Ø 2.6 mm
Bending radius	With fixed installation > 5 x cable diameter
	For flexible use > 10 x cable diameter
Cable outlet	Axial
Control elements connection cable	
Connection type	Cable, 4-wire, 0.1 m
Control elements connection cable detail	
Conductor size	0.08 mm²
Cable diameter	Ø 2.3 mm
Bending radius	With fixed installation > 5 x cable diameter
	For flexible use > 10 x cable diameter
Cable outlet	Axial
Material	
Housing	Plastic
Cable	PUR
UL File No.	NRKH.E181493 & NRKH7.E181493

[1] Supply voltage U_B and constant ambient temperature Ta.

Safety-related parameters

$MTTF_D$	799 years
DC_{avg}	0%
T_M (mission time)	20 years

Certificates

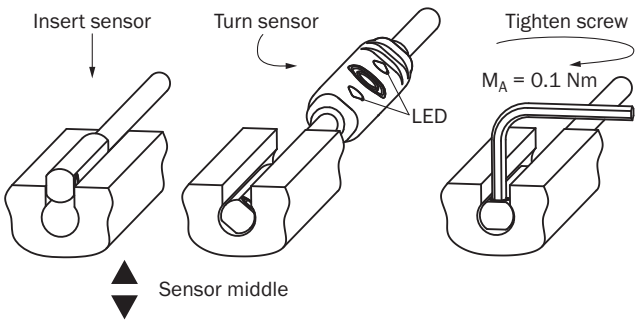
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓

Classifications

ECLASS 5.0	27270104
ECLASS 5.1.4	27270104

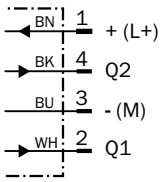
ECLASS 6.0	27270104
ECLASS 6.2	27270104
ECLASS 7.0	27270104
ECLASS 8.0	27270104
ECLASS 8.1	27270104
ECLASS 9.0	27270104
ECLASS 10.0	27270104
ECLASS 11.0	27270104
ECLASS 12.0	27274301
ETIM 5.0	EC002544
ETIM 6.0	EC002544
ETIM 7.0	EC002544
ETIM 8.0	EC002544
UNSPSC 16.0901	39122230

Installation note

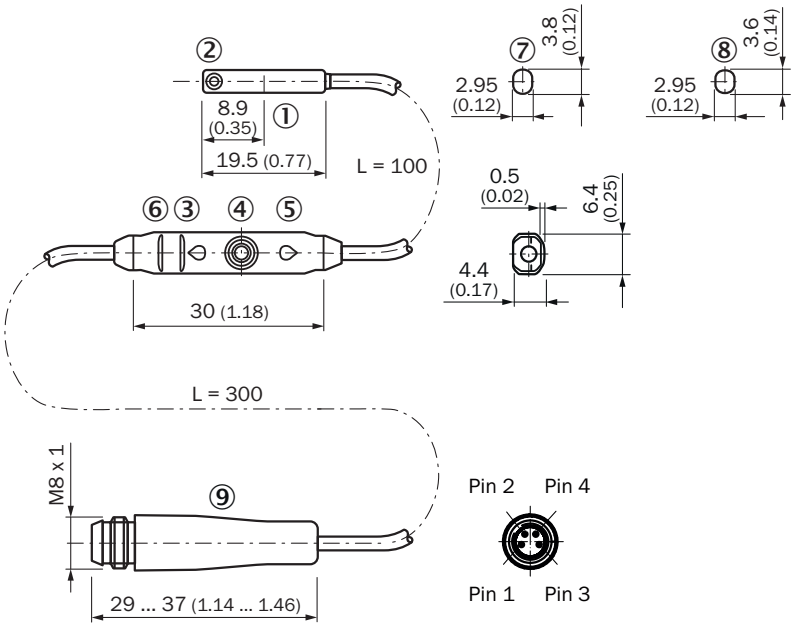


Connection type

Connection diagram Cd-032



Dimensional drawing Cable with connector M8



Dimensions in mm (inch)
① Center of sensor element
② Fixing screw SW 1.3
③ Display LED
④ Teach-in button
⑤ Display LED
⑥ ribbing for cable ties
⑦ For SMC/ Bimba cylinder (MZ2Q-CSxxxx)
⑧ For festo cylinder (MZ2Q-CFxxxx)
⑨ Connection

Recommended accessories

Other models and accessories ➜ www.sick.com/MZ2Q-C

	Brief description	Type	part no.
Mounting systems			
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 1 mm ... 130 mm, ambient temperature min –30 °C max 80 °C • **Material:** Stainless steel, Aluminum • **Details:** Stainless steel, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC1-130	2077686
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 12 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-12	2077673
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 1 mm ... 25 mm, ambient temperature min –30 °C max 80 °C • **Material:** Stainless steel, Aluminum • **Details:** Stainless steel, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC1-25	2077685
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 16 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-16	2077672
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 20 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-20	2077671
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 25 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-25	2077670
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 32 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-32	2077669
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 40 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-40	2077668
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 50 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-50	2077667
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 63 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-63	2077666

	Brief description	Type	part no.
connectors and cables			
	• **Connection type head A:** Female connector, M8, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** 0.14 mm² ... 0.5 mm²	DOS-0804-G	6009974
	• **Connection type head A:** Female connector, M8, 4-pin, angled, A-coded • **Description:** Unshielded • **Connection systems:** Solder connection • **Permitted cross-section:** ≤ 0.25 mm²	DOS-0804-W	6009975
	• **Connection type head A:** Male connector, M8, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** 0.14 mm² ... 0.5 mm²	STE-0804-G	6037323
	• **Connection type head A:** Female connector, M8, 4-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 0.6 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF8U14-C60VA3XLEAX	2145852
	• **Connection type head A:** Female connector, M8, 4-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 1 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF8U14-010VA3XLEAX	2145853
	• **Connection type head A:** Female connector, M8, 4-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 0.6 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG8U14-C60VA3XLEAX	2145854
	• **Connection type head A:** Female connector, M8, 4-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 3 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG8U14-030VA3XLEAX	2145857
	• **Connection type head A:** Female connector, M8, 4-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 1 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG8U14-010VA3XLEAX	2145855

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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