MZ2Q-CSSPSKQ0

MZ2Q-C

SENSORS FOR C-SLOT CYLINDERS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
MZ2Q-CSSPSKQ0	1042240

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

Detailed technical data

Features

Cylinder type	C-slot
Preferred manufacturer slot	SMC Bimba Schunk
Detection zone	0 mm … 50 mm
Cylinder types with adapter	SMC rail ECDQ2 SMC rail CDQ2
Housing length	19.5 mm
Switching output	PNP
Switching output detail	2 x PNP
Output function	NO
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

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

Reproducibility	≤ 0.1 mT [1]
Reverse polarity protection	Yes
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 connector M12, 4-pin, with knurled nuts, 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

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

Insert sensor · Turn sensor · LED · Tighten screw · $M_A = 0.1$ Nm · Sensor middle
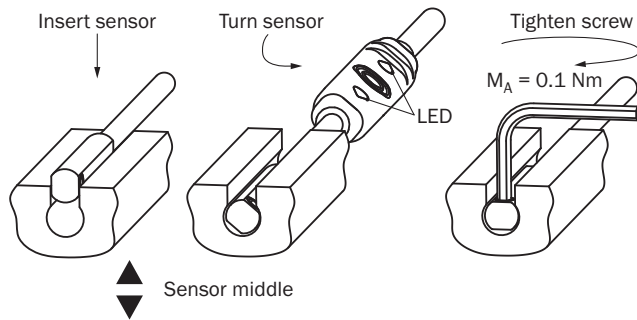
Connection type

Connection diagram

Cd-032

BN 1 + (L+)
BK 4 Q2
BU 3 - (M)
WH 2 Q1
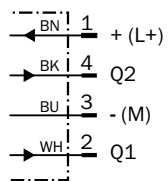
Dimensional drawing (Dimensions in mm (inch))

Cable with M12 male connector

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
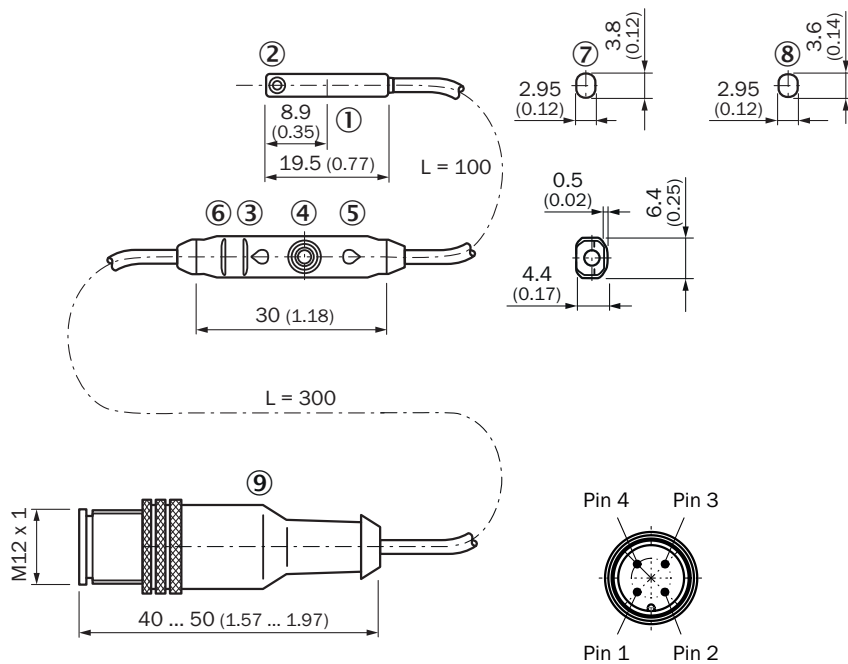
Recommended accessories

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

	Brief description	Type	Part no.
Terminal and alignment brackets			
	• **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 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

	Brief description	Type	Part no.
	• **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
	• **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 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
Others			
	• **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded • **Description:** Unshielded, Head A: female connector, M12, 4-pin, straight, unshielded, for power supply, for cable diameter 4 mm … 6 mm Head B: - • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	DOS-1204-G	6007302
	• **Connection type head A:** Female connector, M12, 4-pin, angled, A-coded • **Description:** Unshielded, Head A: female connector, M12, 4-pin, angled, unshielded, for power supply, for cable diameter 3 mm … 6.5 mm Head B: - • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	DOS-1204-W	6007303

Brief description	Type	Part no.
• **Connection type head A:** Male connector, M12, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	STE-1204-G	6009932
• **Connection type head A:** Male connector, M12, 4-pin, angled, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	STE-1204-W	6022084
• **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 2 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF2A14-020VB3XLEAX	2096234
• **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF2A14-050VB3XLEAX	2096235
• **Connection type head A:** Female connector, M12, 4-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 2 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG2A14-020VB3XLEAX	2095895
• **Connection type head A:** Female connector, M12, 4-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YG2A14-050VB3XLEAX	2095897
• **Connection type head A:** Female connector, M12, 4-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 2 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded, LED function display • **Note:** Only suitable for PNP sensors • **Application:** Zones with chemicals, Uncontaminated zones	YI2A14-020VB3XLEAX	2096222
• **Connection type head A:** Female connector, M12, 4-pin, angled, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded, LED function display • **Note:** Only suitable for PNP sensors • **Application:** Zones with chemicals, Uncontaminated zones	YI2A14-050VB3XLEAX	2096223
• **Connection type head A:** Female connector, M12, 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	YG2A14-C60VB3XLEAX	2145709
• **Connection type head A:** Female connector, M12, 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	YG2A14-010VB3XLEAX	2145710

	Brief description	Type	Part no.
	• **Connection type head A:** Female connector, M12, 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, LED function display • **Note:** Only suitable for PNP sensors • **Application:** Zones with chemicals, Uncontaminated zones	YI2A14-C60VB3XLEAX	2145719
	• **Connection type head A:** Female connector, M12, 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, LED function display • **Note:** Only suitable for PNP sensors • **Application:** Zones with chemicals, Uncontaminated zones	YI2A14-010VB3XLEAX	2145720
	• **Connection type head A:** Female connector, M12, 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, LED function display • **Note:** Only suitable for PNP sensors • **Application:** Zones with chemicals, Uncontaminated zones	YI2A14-030VB3XLEAX	2145721
	• **Connection type head A:** Female connector, M12, 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	YF2A14-C60VB3XLEAX	2145707
	• **Connection type head A:** Female connector, M12, 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	YF2A14-010VB3XLEAX	2145708

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