



MZ2Q-CSSPSKP0

MZ2Q-C

SENSORS FOR C-SLOT CYLINDERS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|---------------|----------|
| MZ2Q-CSSPSKPO | 1042238 |

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 T_a.

| | |
|---|--|
| 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 M8 male connector, 4-pin, 0.3 m |
| Connection type Detail | |
| Conductor cross section | 0.08 mm ² |
| 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 mm ² |
| 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 T_a .

Safety-related parameters

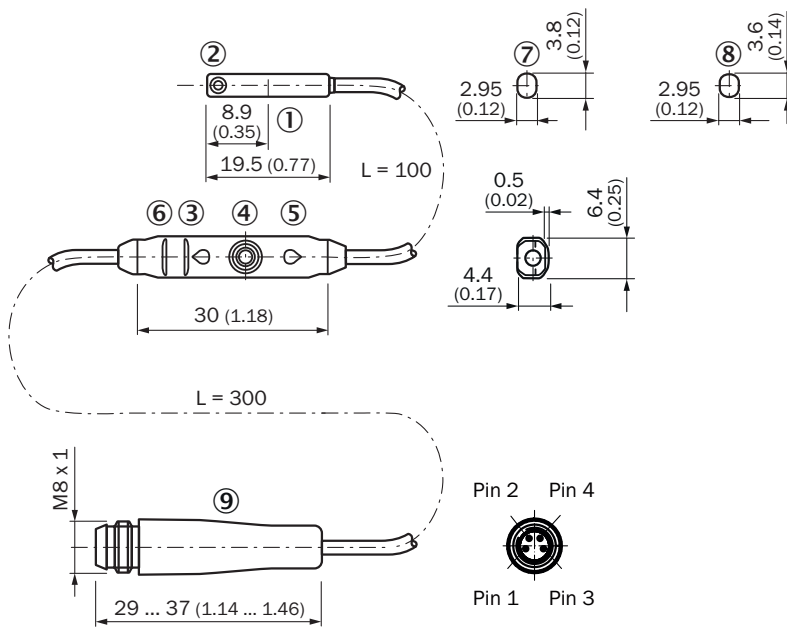
| | |
|-------------------------------------|-----------|
| MTTF_D | 799 years |
| DC_{avg} | 0% |
| T_M (mission time) | 20 years |

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 |

Dimensional drawing (Dimensions in mm (inch))


Cable with connector M8




- 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 | | | |
|  | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • 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. |
|---|---|-----------------|----------|
| | <ul style="list-style-type: none"> 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 |
| | <ul style="list-style-type: none"> 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 |
| | <ul style="list-style-type: none"> 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 |
| | <ul style="list-style-type: none"> 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 |
| | <ul style="list-style-type: none"> 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 |
| | <ul style="list-style-type: none"> 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 |
|  | <ul style="list-style-type: none"> 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 |
| | <ul style="list-style-type: none"> 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 | | | |
|  | <ul style="list-style-type: none"> 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 |
|  | <ul style="list-style-type: none"> 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 |

| | Brief description | Type | Part no. |
|---|--|--------------------|----------|
|  | <ul style="list-style-type: none"> • 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 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 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 | YF8U14-020VA3XLEAX | 2095888 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 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 | YF8U14-050VA3XLEAX | 2095889 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 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 | YG8U14-020VA3XLEAX | 2095962 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 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 | YG8U14-050VA3XLEAX | 2095963 |
|  | <ul style="list-style-type: none"> • 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 |
|  | <ul style="list-style-type: none"> • 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 |
|  | <ul style="list-style-type: none"> • 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 |
|  | <ul style="list-style-type: none"> • 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 |
|  | <ul style="list-style-type: none"> • 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 |

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