

## MZ2Q-CSSNSKUA MZ2Q-C

**SENSORS FOR C-SLOT CYLINDERS** 



#### SENSORS FOR C-SLOT CYLINDERS



#### Ordering information

| Туре          | Part no. |
|---------------|----------|
| MZ2Q-CSSNSKUA | 1046234  |

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



#### Detailed technical data

#### **Features**

| Cylinder type               | C-slot                               |
|-----------------------------|--------------------------------------|
| Preferred manufacturer slot | SMC<br>Bimba<br>Schunk               |
| Detection zone              | 0 mm 50 mm                           |
| Cylinder types with adapter | SMC rail CDQ2 SMC rail CDQ2          |
| Housing length              | 19.5 mm                              |
| Switching output            | 2 x NPN                              |
| Output function             | NO                                   |
| Electrical wiring           | DC 4-wire                            |
| Enclosure rating            | IP67 <sup>1)</sup>                   |
| Adjustment                  |                                      |
| Teach-in control panel      | Teaching in switching points 1 and 2 |

<sup>&</sup>lt;sup>1)</sup> 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 <sub>a</sub> | ≤ 100 mA                 |
| Protection class                  | III                      |
| Hysteresis, typ.                  | 1 mT                     |
| Reproducibility                   | $\leq$ 0.1 mT $^{1)}$    |

 $<sup>^{1)}\,\</sup>mbox{Supply}$  voltage  $\mbox{U}_{\mbox{\footnotesize B}}$  and constant ambient temperature Ta.

| Reverse polarity protection  Short-circuit protection  Yes  Status indicator LED  Teach-in  Power-up pulse protection  Yes  Power-up pulse protection |  |
|---|--|
| Status indicator LED Yes Teach-in Yes Power-up pulse protection Yes   |  |
| Teach-in Yes Power-up pulse protection Yes  |  |
| Power-up pulse protection Yes   |  |
|   |  |
|   |  |
| Ambient operating temperature -20 °C +75 °C   |  |
| <b>Shock and vibration resistance</b> 30 g, 11 ms / 10 55 Hz, 1 mm  |  |
| EMC According to EN 60947-5-2   |  |
| Connection type Cable, 4-wire, 3 m  |  |
| Connection type Detail  |  |
| Conductor cross section 0.08 mm <sup>2</sup>  |  |
| 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 <sup>2</sup>   |  |
| 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   |  |
| <b>UL File No.</b> NRKH.E181493 & NRKH7.E181493   |  |

 $<sup>^{1)}\,\</sup>mbox{Supply}$  voltage  $\mbox{U}_{\mbox{\footnotesize B}}$  and constant ambient temperature Ta.

### Safety-related parameters

| MTTF <sub>D</sub>             | 799 years |
|-------------------------------|-----------|
| <b>DC</b> <sub>avg</sub>      | 0%        |
| T <sub>M</sub> (mission time) | 20 years  |

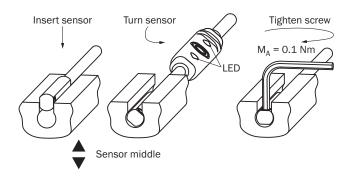
#### Classifications

| 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 |

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| 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



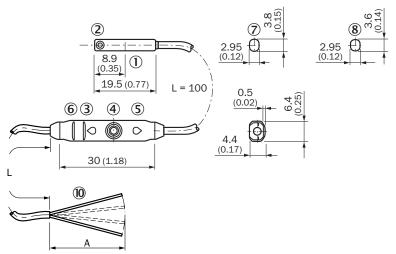
### Connection diagram

#### Cd-033



#### Dimensional drawing (Dimensions in mm (inch))

#### Cable



- 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
- Tor SMC/ Bimba cylinder (MZ2Q-CSxxxx)
- For festo cylinder (MZ2Q-CFxxxx)
- Connection

| Part no. | Туре             | L   | A     | Number of cores |
|----------|------------------|-----|-------|-----------------|
| 1042237  | MZ2Q-CSSPSKU0    | 2 m | 61-65 | 4               |
| 1042241  | MZ2Q-CFSPSKU0    | 2 m | 61-65 | 4               |
| 1115196  | MZ2Q-CFLPSKU0    | 2 m | 61-65 | 4               |
| 1046234  | MZ2Q-CSSNSKUA    | 3 m | 61-65 | 4               |
| 1051588  | MZ2Q-CSSPSKUAS05 | 3 m | 61-65 | 4               |

#### Recommended accessories

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

|                               | Brief description   | Туре          | Part no. |  |  |  |
|-------------------------------|---|---------------|----------|--|--|--|
| Brackets for cylinder sensors |   |               |          |  |  |  |
|                               | 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-RC-12 | 2077673  |  |  |  |
|                               | 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-RC-16 | 2077672  |  |  |  |
|                               | 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-RC-20 | 2077671  |  |  |  |
|                               | 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-RC-25 | 2077670  |  |  |  |
|                               | 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-RC-32 | 2077669  |  |  |  |

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|            | Brief description   | Туре            | Part no. |
|------------|---|-----------------|----------|
|            | 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-RC-40   | 2077668  |
|            | 1 piece, Mounting bracket on round body cylinder with piston diameter of 50 mm, $^{\varsigma}$ ambient temperature min 0 $^{\circ}$ C max 50 $^{\circ}$ C, plastic, Aluminum  | BEF-KHZ-RC-50   | 2077667  |
|            | 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-RC-63   | 2077666  |
|            | 1 piece, Mounting bracket on round body cylinder with piston diameter of 1 mm 130 mm, ambient temperature min $-30~^{\circ}$ C max 80 $^{\circ}$ C, stainless steel, Aluminum | BEF-KHZ-RC1-130 | 2077686  |
| <b>MIN</b> | 1 piece, Mounting bracket on round body cylinder with piston diameter of 1 mm 25 mm, ambient temperature min –30 °C max 80 °C, stainless steel, Aluminum                      | BEF-KHZ-RC1-25  | 2077685  |

### 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:**

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