



# MZC1, RZC1

DROP-IN, INSTALL, DONE

Magnetic cylinder sensors

**SICK**  
Sensor Intelligence.

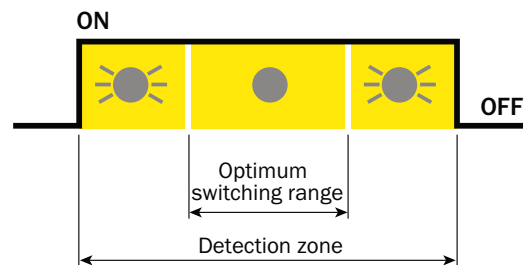
# MZC1 UND RZC1: TOP OF THE CLASS FOR C-SLOTS

The MZC1 cylinder sensor is not only a perfect fit for any C-slot, visible setup is also a cinch thanks to optical adjustment indicators.

## LED as optical adjustment indicator with monitoring function

The yellow LED ensures that the MZC1 is mounted correctly at the ideal switching point. If the sensor is placed at that position, the LED lights up continuously during switching operations. If the yellow LED flashes, the magnetic field strength has changed. The cylinder piston is located at the upper or lower outer area of the detection zone. The sensor switches faultlessly and provides an output signal within the entire detection zone, even in the outer areas. If the LED does not light up, the cylinder piston is located outside of the sensor's detection zone. In this case, the magnet field is too weak for a reliable output signal and the sensor does not switch. The values for the optimal switching point and the peripheral zones are preset at the factory.

✔ Easy installation and mounting position monitoring



## Bright power LED

In addition to the visual adjustment indicator, the new variants of the MZC1 cylinder sensor are fitted with a green LED. It lights up continuously if the sensor is operating, acting as a monitoring function. The bright green LED is immediately visible – even from a long distance.

✔ Direct feedback facilitates handling and maintenance



### Easily installed and quickly secured – in no time at all

The universal MZC1 from SICK is now the only sensor you need to reliably monitor the piston position in almost any pneumatic cylinder with a C-slot, regardless of the variants and mechanical tolerances of the cylinder manufacturer. For cylinders without a C-slot, such as round, tie-rod and profile cylinders, an extensive range of mounting adapter accessories is available for selection. No cylinder sensor can be mounted

more easily, more quickly or more reliably. Simply insert it and fasten it in place in moments; the new MZC1 housing concept leaves nothing to be desired. A quarter-turn of the eccentric retainer screw is enough to ensure sensor is firmly secured in place. No slipping and the switching point will not wander, even under strong vibrations.

✔ Firm hold for more continuous switching reliability



The MZC1 magnetic cylinder sensor can be mounted in a C-slot using a combination screw. The screw can be tightened using either an Allen key or a flat-head screwdriver.

Another advantage: the screw-and-washer assembly is securely attached to the sensor housing and thus cannot be lost.

✔ The screw-and-washer assembly: Truly captive



Screw being fitted with a flat-head screwdriver.



Screw being fitted with an Allen key.

## DROP-IN, INSTALL, DONE



### Product description

The MZC1 magnetic cylinder sensor from SICK is a flexible solution for detecting the piston position in pneumatic actuators. The MZC1 can be mounted directly into all cylinders with standard C-slots. SICK also has an extensive range of adapters which enable the MZC1 to be used with other cylinder types. The MZC1 is characterized by its

simple mounting principle: Insert the sensor into the slot and rotate the fixing screw a quarter turn to fix it securely to the cylinder. Furthermore, the MZC1 is available in a range of variants up to an enclosure rating of IP 69K. This ensures the sensor has a long service life and reduces maintenance costs.

### At a glance

- Can be used in all cylinders, linear slides, and grippers with a C-slot and in many roundbody and tie-rod cylinders by means of adapters
- Easy to insert the sensor into the slot
- Fixing screw combines hexagon socket screw and slotted screw elements
- LED for indicating the output state
- PNP or NPN switching output, PUR or PVC cable, M8 or M12 plug connection available
- Enclosure ratings: IP 67, IP 68, IP 69K

### Your benefits

- A sensor for a wide range of applications: The sensor design fits into all standard C-slots used around the world, regardless of the cylinder profile or make
- Quick and easy mounting using an Allen key or flat-head screwdriver
- Low maintenance costs as the sensor is resistant to shock and vibrations, meaning it does not slide about in the slot
- Saves time on initial installation and when replacing devices as the sensor can be easily inserted into the slot from above. The end caps of the cylinder do not have to be removed.
- Very rugged housing with enclosure rating IP 67, IP 68, or IP 69K extends the service life of the sensor



### Additional information

|                                   |    |
|-----------------------------------|----|
| Detailed technical data . . . . . | 5  |
| Ordering information . . . . .    | 6  |
| Dimensional drawings . . . . .    | 7  |
| Connection diagram . . . . .      | 7  |
| Accessories . . . . .             | 16 |

→ [www.mysick.com/en/MZC1](http://www.mysick.com/en/MZC1)

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.



## Detailed technical data

## Features

|                                    |  |
|------------------------------------|--|
| <b>Cylinder type</b>               | C-slot   |
| <b>Cylinder types with adapter</b> | SMC rail CDQ2<br>SMC rail ECDQ2  |
| <b>Housing length</b>              | 23.7 mm  |
| <b>Output type</b>                 | PNP / NPN (depending on type)  |
| <b>Switching frequency</b>         | 1,000 Hz   |
| <b>Output function</b>             | NO / NC (depending on type)  |
| <b>Enclosure rating</b>            | IP 68, IP 69K <sup>1) 2)</sup><br>IP 68 <sup>1)</sup><br>(depending on type) |

<sup>1)</sup> According to EN 60529 (IP 67 / IP 68)

<sup>2)</sup> According to DIN 40050 (IP 69K)

## Mechanics/electronics

|   |                                      |
|---|--------------------------------------|
| <b>Supply voltage</b>                   | 10 V DC ... 30 V DC                  |
| <b>Power consumption <sup>1)</sup></b>  | ≤ 8 mA                               |
| <b>Voltage drop</b>                     | ≤ 2.5 V                              |
| <b>Continuous current I<sub>a</sub></b> | ≤ 100 mA                             |
| <b>Protection class</b>                 | III                                  |
| <b>Response sensitivity, typ.</b>       | 2.2 mT / 4.25 mT (depending on type) |
| <b>Overrun distance, typ.</b>           | 4 mm / 7 mm (depending on type)      |
| <b>Hysteresis, typ.</b>                 | ≤ 0.8 mT                             |
| <b>Repeatability <sup>2)</sup></b>      | ≤ 0.1 mT                             |
| <b>Reverse polarity protection</b>      | ✓                                    |
| <b>Short-circuit protection</b>         | ✓                                    |
| <b>Power-up pulse protection</b>        | ✓                                    |
| <b>Ambient operating temperature</b>    | -30 °C ... +80 °C                    |
| <b>Shock and vibration resistance</b>   | 30 g, 11 ms / 10 ... 55 Hz, 1 mm     |
| <b>EMC</b>                              | According to EN 60947-5-2            |
| <b>Housing material</b>                 | Plastic                              |
| <b>Cable material</b>                   | PVC / PUR (depending on type)        |
| <b>Conductor cross-section</b>          | 0.09 mm <sup>2</sup>                 |
| <b>UL File No.</b>                      | NRKH.E181493                         |

<sup>1)</sup> Without load.

<sup>2)</sup> U<sub>b</sub> and T<sub>a</sub> constant.

## Ordering information

Other models → [www.mysick.com/en/MZC1](http://www.mysick.com/en/MZC1)

### MZC1 – short overrun distance

- **Overrun distance, typ.:** 4 mm
- **Magnetic field sensitivity, min.:** 2.2 mT

| Output function | Output type                            | Connection type  | Enclosure rating | Cable material | Connection diagram | Type              | Part no. |
|-----------------|--|--|------------------|----------------|--------------------|-------------------|----------|
| NO              | PNP                                    | Cable, 3-wire, 2 m                                       | IP 68, IP 69K    | PVC            | Cd-001             | MZC1-2V2PS-KW0    | 1059740  |
|                 |  |  |                  | PUR            | Cd-001             | MZC1-2V2PS-KU0    | 1059738  |
|                 |  | Cable, 3-wire, 5 m                                       | IP 68, IP 69K    | PVC            | Cd-001             | MZC1-2V2PS-KWB    | 1059741  |
|                 |  |  |                  | PUR            | Cd-001             | MZC1-2V2PS-KUB    | 1059739  |
|                 |  | Cable with connector M8, 3-pin, 0.3 m                    | IP 68            | PUR            | Cd-002             | MZC1-2V2PS-KP0    | 1059735  |
|                 |  | Cable with connector M8, 3-pin, with knurled nuts, 0.3 m | IP 68            | PUR            | Cd-002             | MZC1-2V2PS-KR0    | 1059737  |
|                 |  | Cable with connector M8, 3-pin, with knurled nuts, 0.5 m | IP 68            | PUR            | Cd-002             | MZC1-2V2PS-KRD    | 1060129  |
|                 |  | Cable with connector M8, 3-pin, with knurled nuts, 1 m   | IP 68            | PUR            | Cd-002             | MZC1-2V2PS-KRDS02 | 1068563  |
|                 | Cable with connector M12, 3-pin, 0.3 m | IP 68  | PUR              | Cd-002         | MZC1-2V2PS-KQ0     | 1059736           |          |
|                 | NPN                                    | Cable, 3-wire, 2 m                                       | IP 68, IP 69K    | PUR            | Cd-001             | MZC1-2V2NS-KU0    | 1059743  |
|                 |  |  |                  | PUR            | Cd-002             | MZC1-2V2NS-KP0    | 1059744  |
|                 |  |  |                  | PUR            | Cd-002             | MZC1-2V2NS-KRDS03 | 1068564  |
|                 |  |  |                  | PUR            | Cd-002             | MZC1-2V2NS-KRD    | 1068562  |
|                 |  |  |                  | PUR            | Cd-002             | MZC1-2V2NS-KRO    | 1059742  |
| PUR             |  |  |                  | Cd-002         | MZC1-2V2NS-KQ0     | 1077026           |          |

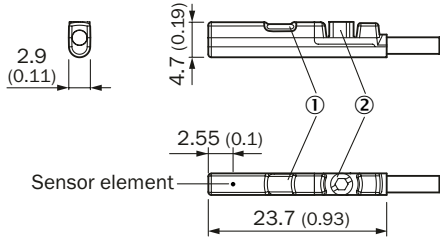
### MZC1 – long overrun distance

- **Overrun distance, typ.:** 7 mm
- **Magnetic field sensitivity, min.:** 4.25 mT

| Output function | Output type | Connection type  | Enclosure rating | Cable material | Connection diagram | Type           | Part no. |
|-----------------|-------------|--|------------------|----------------|--------------------|----------------|----------|
| NO              | PNP         | Cable, 3-wire, 2 m                                       | IP 68, IP 69K    | PUR            | Cd-001             | MZC1-4V3PS-KU0 | 1059755  |
|                 |             | Cable with connector M8, 3-pin, 0.3 m                    | IP 68            | PUR            | Cd-002             | MZC1-4V3PS-KP0 | 1059752  |
|                 |             | Cable with connector M8, 3-pin, with knurled nuts, 0.3 m | IP 68            | PUR            | Cd-002             | MZC1-4V3PS-KRO | 1059753  |
|                 |             | Cable with connector M12, 3-pin, 0.3 m                   | IP 68            | PUR            | Cd-002             | MZC1-4V3PS-KQ0 | 1059754  |
|                 | NPN         | Cable, 3-wire, 2 m                                       | IP 68, IP 69K    | PUR            | Cd-001             | MZC1-4V3NS-KU0 | 1059756  |
|                 |             |  |                  | PUR            | Cd-002             | MZC1-4V3NS-KP0 | 1059757  |

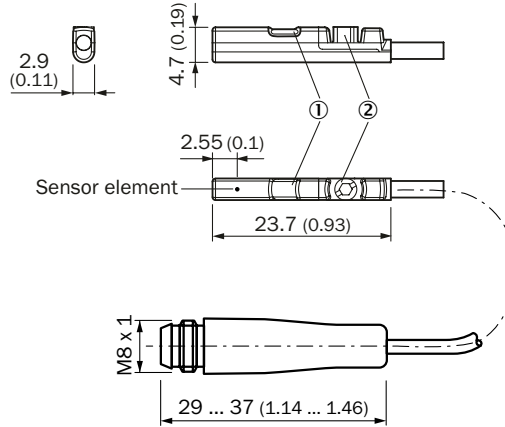
**Dimensional drawings** (Dimensions in mm (inch))

**Cable**



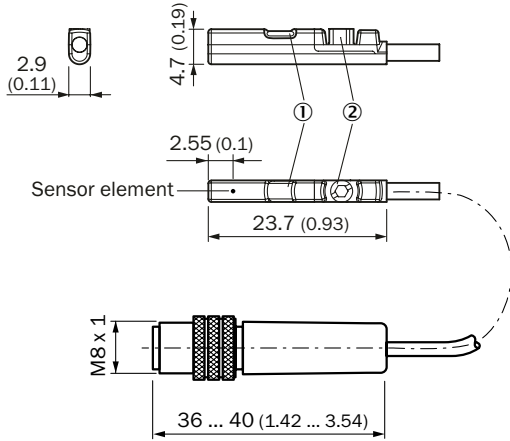
- ① Indication LED
- ② Fixing screw

**Cable with connector M8**



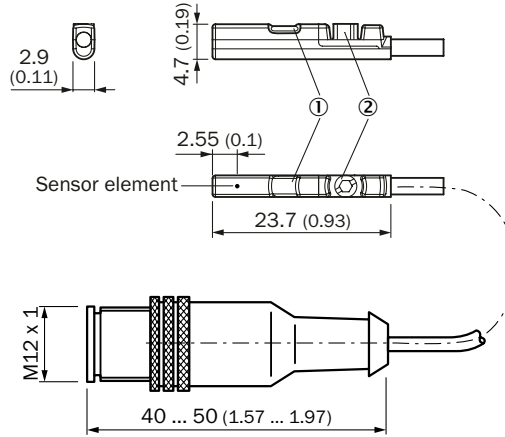
- ① Indication LED
- ② Fixing screw

**Cable with connector M8, with knurled nuts**



- ① Indication LED
- ② Fixing screw

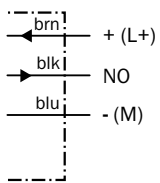
**Cable with M12 male connector**



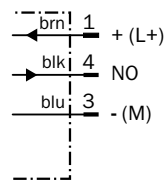
- ① Indication LED
- ② Fixing screw

**Connection diagram**

**Cd-001**



**Cd-002**



# DROP-IN, INSTALL, DONE



## Product description

The MZC1 VIA magnetic cylinder sensor from SICK is a flexible solution for detecting the piston position in pneumatic actuators. The MZC1 VIA can be mounted directly into all cylinders with standard C-slots. SICK also has an extensive range of adapters which enable the MZC1 VIA to be used with other cylinder types. The MZC1 VIA is charac-

terized by its simple mounting principle: Insert the sensor into the slot and rotate the fixing screw a quarter turn to fix it securely to the cylinder. The yellow LED serves as an optical adjustment indicator and makes it easier to install the sensor and monitor its mounting position. The additional green LED indicates whether the MZC1 VIA is in operation.

## At a glance

- Yellow LED as optical adjustment indicator and output state display
- Green LED acts as a status indicator
- Can be used in all cylinders, linear slides, and grippers with a C-slot and in many roundbody and tie-rod cylinders by means of adapters
- Easy to insert the sensor into the slot
- Fixing screw combines hexagon socket screw and slotted screw elements
- PNP or NPN switching output, PUR or PVC cable, M8 or M12 plug connection available
- Enclosure ratings: IP 67, IP 68, IP 69K

## Your benefits

- Easy installation and mounting position monitoring thanks to yellow LED
- Additional powerful green LED acts as a status indicator
- A sensor for a wide range of applications: The sensor design fits into all standard C-slots used around the world, regardless of the cylinder profile or make
- Quick and easy mounting using an Allen key or flat-head screwdriver
- Low maintenance costs as the sensor is resistant to shock and vibrations, meaning it does not slide about in the slot
- Saves time on initial installation and when replacing devices as the sensor can be easily inserted into the slot from above. The end caps of the cylinder do not have to be removed.
- Very rugged housing with enclosure rating IP 67, IP 68, or IP 69K extends the service life of the sensor



## Additional information

|                                   |    |
|-----------------------------------|----|
| Detailed technical data . . . . . | 9  |
| Ordering information . . . . .    | 10 |
| Dimensional drawings . . . . .    | 11 |
| Connection diagram . . . . .      | 11 |
| Accessories . . . . .             | 16 |

→ [www.mysick.com/en/MZC1\\_VIA](http://www.mysick.com/en/MZC1_VIA)

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.





## Detailed technical data

## Features

|                                    |  |
|------------------------------------|--|
| <b>Cylinder type</b>               | C-slot   |
| <b>Cylinder types with adapter</b> | SMC rail CDQ2<br>SMC rail ECDQ2  |
| <b>Housing length</b>              | 23.7 mm  |
| <b>Output type</b>                 | PNP  |
| <b>Switching frequency</b>         | 1,000 Hz   |
| <b>Output function</b>             | NO   |
| <b>Enclosure rating</b>            | IP 68, IP 69K <sup>1) 2)</sup><br>IP 68 <sup>1)</sup><br>(depending on type) |
| <b>Special features</b>            | Visual installation aid/LED indicator (yellow)<br>Power LED (green)          |

<sup>1)</sup> According to EN 60529 (IP 67 / IP 68)

<sup>2)</sup> According to DIN 40050 (IP 69K)

## Mechanics/electronics

|   |                                  |
|---|----------------------------------|
| <b>Supply voltage</b>                   | 10 V DC ... 30 V DC              |
| <b>Power consumption <sup>1)</sup></b>  | ≤ 8 mA                           |
| <b>Voltage drop</b>                     | ≤ 2.5 V                          |
| <b>Continuous current I<sub>a</sub></b> | ≤ 100 mA                         |
| <b>Protection class</b>                 | III                              |
| <b>Response sensitivity, typ.</b>       | 2.2 mT                           |
| <b>Overrun distance, typ.</b>           | 4 mm                             |
| <b>Hysteresis, typ.</b>                 | ≤ 0.8 mT                         |
| <b>Repeatability <sup>2)</sup></b>      | ≤ 0.1 mT                         |
| <b>Reverse polarity protection</b>      | ✓                                |
| <b>Short-circuit protection</b>         | ✓                                |
| <b>Power-up pulse protection</b>        | ✓                                |
| <b>Ambient operating temperature</b>    | -30 °C ... +80 °C                |
| <b>Shock and vibration resistance</b>   | 30 g, 11 ms / 10 ... 55 Hz, 1 mm |
| <b>EMC</b>                              | According to EN 60947-5-2        |
| <b>Housing material</b>                 | Plastic                          |
| <b>Cable material</b>                   | PUR                              |
| <b>Conductor cross-section</b>          | 0.09 mm <sup>2</sup>             |
| <b>UL File No.</b>                      | NRKH.E181493                     |

<sup>1)</sup> Without load.

<sup>2)</sup> U<sub>b</sub> and T<sub>a</sub> constant.

## Ordering information

Other models → [www.mysick.com/en/MZC1\\_VIA](http://www.mysick.com/en/MZC1_VIA)

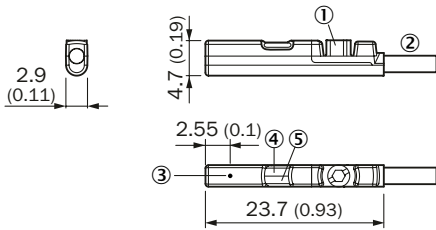
### MZC1 VIA

- **Special features:** visual installation aid/LED indicator (yellow), Power LED (green)
- **Overrun distance, typ.:** 4 mm
- **Magnetic field sensitivity, min.:** 2.2 mT

| Output function | Output type | Connection type  | Enclosure rating | Cable material | Connection diagram | Type           | Part no. |
|-----------------|-------------|--|------------------|----------------|--------------------|----------------|----------|
| NO              | PNP         | Cable, 3-wire, 5 m                                       | IP 68, IP 69K    | PUR            | Cd-001             | MZC1-2V2PSAKUB | 1079050  |
|                 |             | Cable, 3-wire, 2 m                                       | IP 68, IP 69K    | PUR            | Cd-001             | MZC1-2V2PSAKUO | 1079049  |
|                 |             | Cable with connector M8, 3-pin, 0.3 m                    | IP 68            | PUR            | Cd-002             | MZC1-2V2PSAKPO | 1079046  |
|                 |             | Cable with connector M8, 3-pin, with knurled nuts, 0.3 m | IP 68            | PUR            | Cd-002             | MZC1-2V2PSAKRO | 1079047  |
|                 |             | Cable with connector M12, 3-pin, 0.3 m                   | IP 68            | PUR            | Cd-002             | MZC1-2V2PSAKQO | 1079048  |

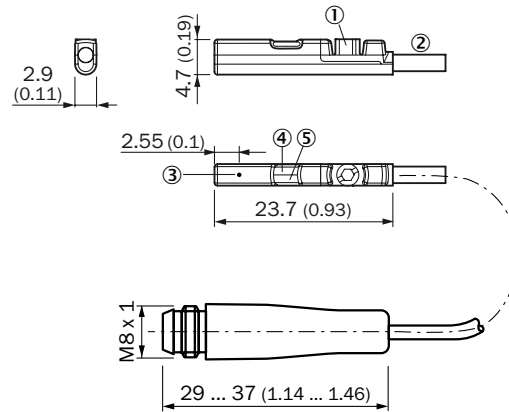
**Dimensional drawings** (Dimensions in mm (inch))

**Cable**



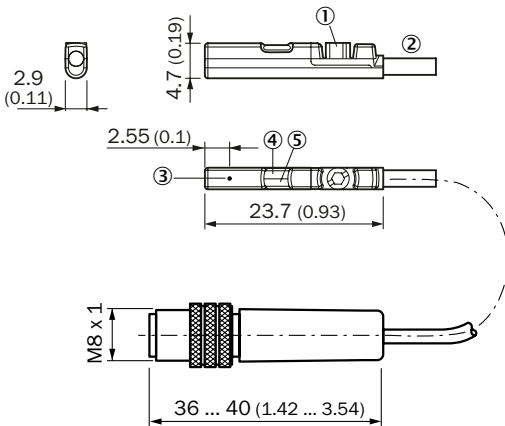
- ① Fixing screw
- ② Fixing screw
- ③ Connection
- ④ Position sensor element
- ⑤ Visual installation aid/LED indicator (yellow)
- ⑥ Power LED (green)

**Cable with connector M8**



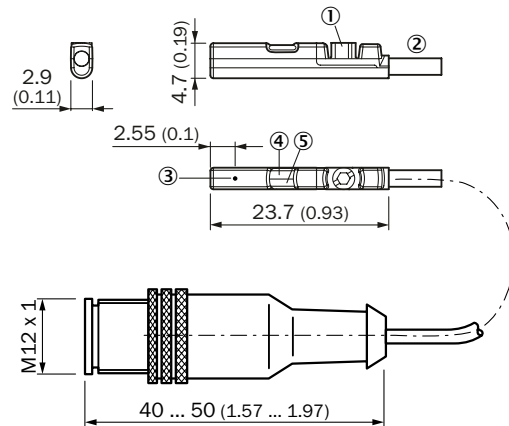
- ① Fixing screw
- ② Connection
- ③ Position sensor element
- ④ Visual installation aid/LED indicator (yellow)
- ⑤ Power LED (green)

**Cable with connector M8, with knurled nuts**



- ① Fixing screw
- ② Connection
- ③ Position sensor element
- ④ Visual installation aid/LED indicator (yellow)
- ⑤ Power LED (green)

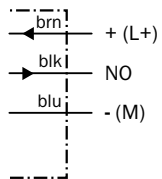
**Cable with M12 male connector**



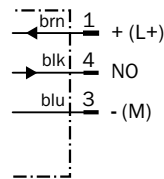
- ① Fixing screw
- ② Connection
- ③ Position sensor element
- ④ Visual installation aid/LED indicator (yellow)
- ⑤ Power LED (green)

**Connection diagram**

Cd-001



Cd-002



## DROP-IN, INSTALL, DONE



### Product description

The RZC1 magnetic cylinder sensor with reed contact from SICK is a flexible solution for detecting the piston position in pneumatic actuators. The RZC1 can be mounted directly into all cylinders with standard C-slots. SICK also has an extensive range of adapters which enable the RZC1 to be used with other cylinder types. The RZC1 is characterized by its

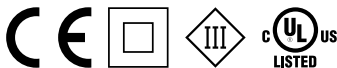
simple mounting principle: Insert the sensor into the slot and rotate the fixing screw a quarter turn to fix it securely to the cylinder. Furthermore, the RZC1 is available in a range of variants up to an enclosure rating of IP 69K. This ensures the sensor has a long service life and reduces maintenance costs.

### At a glance

- Can be used in all cylinders, linear slides, and grippers with a C-slot and in many roundbody and tie-rod cylinders by means of adapters
- Easy to insert the sensor into the slot
- Fixing screw combines hexagon socket screw and slotted screw elements
- LED for indicating the output state
- Wide range of options with 3-wire reed, 2-wire reed, and 120 V reed versions
- Enclosure ratings: IP 67, IP 68, IP 69K

### Your benefits

- A sensor for a wide range of applications: The sensor design fits into all standard C-slots used around the world, regardless of the cylinder profile or make
- Quick and easy mounting using an Allen key or flat-head screwdriver
- Low maintenance costs as the sensor is resistant to shock and vibrations, meaning it does not slide about in the slot
- Saves time on initial installation and when replacing devices as the sensor can be easily inserted into the slot from above. The end caps of the cylinder do not have to be removed.
- Very rugged housing with enclosure rating IP 67, IP 68, or IP 69K extends the service life of the sensor



### Additional information

|                                   |    |
|-----------------------------------|----|
| Detailed technical data . . . . . | 13 |
| Ordering information . . . . .    | 14 |
| Dimensional drawings . . . . .    | 15 |
| Connection diagram . . . . .      | 15 |
| Accessories . . . . .             | 16 |

→ [www.mysick.com/en/RZC1](http://www.mysick.com/en/RZC1)

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.



## Detailed technical data

## Features

|                                    | AC/DC 3-wire  | AC/DC 2-wire        |
|------------------------------------|---|---------------------|
| <b>Cylinder type</b>               | C-slot  |                     |
| <b>Cylinder types with adapter</b> | SMC rail CDQ2<br>SMC rail ECDQ2   |                     |
| <b>Housing length</b>              | 26.3 mm   |                     |
| <b>Output type</b>                 | Reed  |                     |
| <b>Switching frequency</b>         | 500 Hz  |                     |
| <b>Output function</b>             | NO  |                     |
| <b>Enclosure rating</b>            | IP 68 <sup>1)</sup><br>IP 69K <sup>2)</sup><br>IP 67 <sup>1)</sup><br>(depending on type) | IP 67 <sup>1)</sup> |

<sup>1)</sup> According to EN 60529 (IP 67 / IP 68)

<sup>2)</sup> According to DIN 40050 (IP 69K)

## Mechanics/electronics

|   | AC/DC 3-wire                     | AC/DC 2-wire                                      |
|---|----------------------------------|---|
| <b>Supply voltage</b>                   | 5 V AC/DC ... 30 V AC/DC         | 5 V AC/DC ... 120 V AC/DC<br>(depending on type)  |
| <b>Power consumption <sup>1)</sup></b>  | 5 mA                             |   |
| <b>Voltage drop</b>                     | < 0.5 V                          | < 3.2 V   |
| <b>Continuous current I<sub>a</sub></b> | ≤ 500 mA                         | ≤ 50 mA   |
| <b>Switching capacity</b>               | ≤ 10 W                           | 1.5 W / 10 W (depending on type)                  |
| <b>Protection class</b>                 | III                              | II <sup>2) 3)</sup><br>III<br>(depending on type) |
| <b>Overrun distance, typ.</b>           | 7 mm                             |   |
| <b>Repeatability <sup>4)</sup></b>      | ≤ 0.1 mT                         |   |
| <b>Ambient operating temperature</b>    | -30 °C ... +80 °C                |   |
| <b>Shock and vibration resistance</b>   | 30 g, 11 ms / 10 ... 55 Hz, 1 mm |   |
| <b>EMC</b>                              | According to EN 60947-5-2        |   |
| <b>Housing material</b>                 | Plastic, PA, strengthened        |   |
| <b>Cable material</b>                   | PUR                              |   |
| <b>Conductor cross-section</b>          | 0.09 mm <sup>2</sup>             |   |
| <b>UL File No.</b>                      | NRKH.E181493                     |   |

<sup>1)</sup> Without load.

<sup>2)</sup> The sensor may only be used when mounted as a complete unit in the slot.

<sup>3)</sup> Overvoltage category II.

<sup>4)</sup> U<sub>b</sub> and T<sub>a</sub> constant.

## Ordering information

Other models → [www.mysick.com/en/RZC1](http://www.mysick.com/en/RZC1)

### AC/DC 3-wire

- **Electrical wiring:** AC/DC 3-wire
- **Continuous current  $I_a$ :** ≤ 500 mA

| Supply voltage           | Connection   | Enclosure rating                           | Connection diagram | Type           | Part no. |
|--------------------------|--|--|--------------------|----------------|----------|
| 5 V AC/DC ... 30 V AC/DC | Cable, 3-wire, 2 m                                       | IP 68 <sup>1)</sup> , IP 69K <sup>2)</sup> | Cd-035             | RZC1-04ZRS-KU0 | 1059746  |
|                          | Cable, 3-wire, 5 m                                       | IP 68 <sup>1)</sup> , IP 69K <sup>2)</sup> | Cd-035             | RZC1-04ZRS-KUB | 1059749  |
|                          | Cable with connector M8, 3-pin, 0.3 m                    | IP 67 <sup>1)</sup>                        | Cd-036             | RZC1-04ZRS-KP0 | 1059747  |
|                          | Cable with connector M8, 3-pin, with knurled nuts, 0.3 m | IP 68 <sup>1)</sup>                        | Cd-036             | RZC1-04ZRS-KR0 | 1059748  |
|                          | Cable with connector M8, 3-pin, with knurled nuts, 0.5 m | IP 68 <sup>1)</sup>                        | Cd-036             | RZC1-04ZRS-KRD | 1060130  |
|                          | Cable with connector M12, 3-pin, 0.3 m                   | IP 68 <sup>1)</sup>                        | Cd-036             | RZC1-04ZRS-KQ0 | 1059745  |

<sup>1)</sup> According to EN 60529 (IP 67 / IP 68)

<sup>2)</sup> According to DIN 40050 (IP 69K)

### AC/DC 2-wire

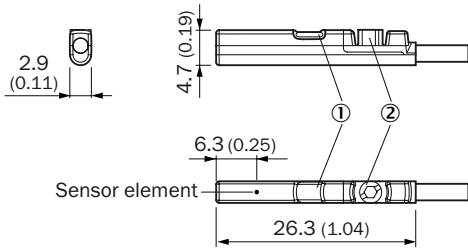
- **Electrical wiring:** AC/DC 2-wire
- **Continuous current  $I_a$ :** ≤ 50 mA

| Supply voltage            | Connection                            | Enclosure rating <sup>1)</sup> | Connection diagram | Type              | Part no. |
|---------------------------|---------------------------------------|--------------------------------|--------------------|-------------------|----------|
| 5 V AC/DC ... 120 V AC/DC | Cable, 2-wire, 2 m                    | IP 67                          | Cd-037             | RZC1-04ZUS-KU0    | 1059750  |
| 5 V AC/DC ... 30 V AC/DC  | Cable, 2-wire, 2 m                    | IP 67                          | Cd-037             | RZC1-04ZUS-KU0S01 | 1065397  |
|                           | Cable, 2-wire, 3 m                    | IP 67                          | Cd-037             | RZC1-04ZUS-KUAS02 | 1070035  |
|                           | Cable, 2-wire, 5 m                    | IP 67                          | Cd-037             | RZC1-04ZUS-KUBS03 | 1073286  |
|                           | Cable with connector M8, 2-pin, 0.3 m | IP 67                          | Cd-338             | RZC1-04ZUS-KP0    | 1059751  |

<sup>1)</sup> According to EN 60529 (IP 67 / IP 68)

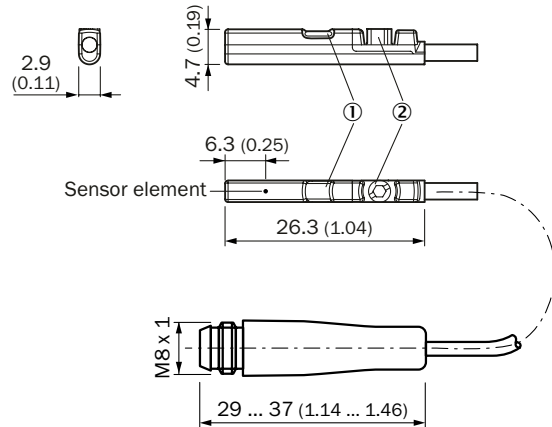
**Dimensional drawings** (Dimensions in mm (inch))

**Cable**



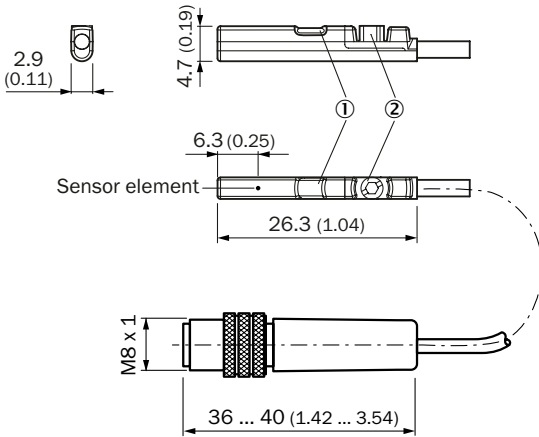
- ① Indication LED
- ② Fixing screw

**Cable with connector M8**



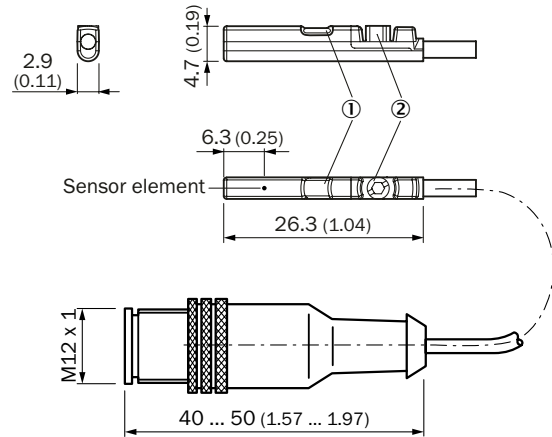
- ① Indication LED
- ② Fixing screw

**Cable with connector M8, with knurled nuts**



- ① Indication LED
- ② Fixing screw

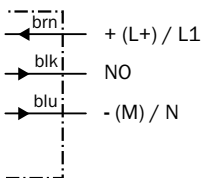
**Cable with M12 male connector**



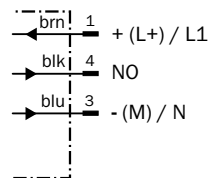
- ① Indication LED
- ② Fixing screw

**Connection diagram**

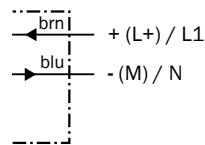
**Cd-035**



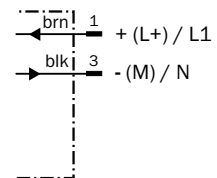
**Cd-036**



**Cd-037**



**Cd-338**







Accessories


Mounting systems

Brackets for cylinder sensors


For round body cylinders

| Figure   | Material   | Description   | Type  | Part no.        |
|--|--|---|---|-----------------|
|   | Plastic, Aluminum  | Mounting bracket on round body cylinder with piston diameter of 12 mm, ambient temperature min 0 °C max 50 °C | BEF-KHZ-RC-12   | 2077673         |
|  |  | Mounting bracket on round body cylinder with piston diameter of 16 mm, ambient temperature min 0 °C max 50 °C | BEF-KHZ-RC-16   | 2077672         |
|  |  | Mounting bracket on round body cylinder with piston diameter of 20 mm, ambient temperature min 0 °C max 50 °C | BEF-KHZ-RC-20   | 2077671         |
|   |  | Mounting bracket on round body cylinder with piston diameter of 25 mm, ambient temperature min 0 °C max 50 °C | BEF-KHZ-RC-25   | 2077670         |
|  |  | Mounting bracket on round body cylinder with piston diameter of 32 mm, ambient temperature min 0 °C max 50 °C | BEF-KHZ-RC-32   | 2077669         |
|  |  | Mounting bracket on round body cylinder with piston diameter of 40 mm, ambient temperature min 0 °C max 50 °C | BEF-KHZ-RC-40   | 2077668         |
|   |  | Mounting bracket on round body cylinder with piston diameter of 50 mm, ambient temperature min 0 °C max 50 °C | BEF-KHZ-RC-50   | 2077667         |
|  |  | Mounting bracket on round body cylinder with piston diameter of 63 mm, ambient temperature min 0 °C max 50 °C | BEF-KHZ-RC-63   | 2077666         |
|  |  | Stainless steel, Aluminum   | Mounting bracket on round body cylinder with piston diameter of 1 mm ... 130 mm, ambient temperature min -30 °C max 80 °C | BEF-KHZ-RC1-130 |
|  | Mounting bracket on round body cylinder with piston diameter of 1 mm ... 25 mm, ambient temperature min -30 °C max 80 °C |   | BEF-KHZ-RC1-25  | 2077685         |

For SMC rails CDQ2 (T-/C-slot)

| Figure  | Material | Description  | Type        | Part no. |
|---|----------|--|-------------|----------|
|  | Aluminum | Mounting bracket for mounting on SMC rails CDQ2 (C-slot) | BEF-KHZ-TC2 | 2046442  |

For SMC rails ECDQ2 (T-/C-slot)

| Figure  | Material | Description   | Type        | Part no. |
|---|----------|---|-------------|----------|
|  | Aluminum | Mounting bracket for mounting on SMC rails ECDQ2 (C-slot) | BEF-KHZ-TC1 | 2046441  |





## Connection systems

### Plug connectors and cables



Connecting cables with female connector, M12, 3-pin, PUR, halogen-free

- **Cable material:** PUR, halogen-free
- **Connector material:** TPU



| Figure  | Connection type head A                             | Connection type head B      | Connecting cable | Type           | Part no. |
|---|--|-----------------------------|------------------|----------------|----------|
|  | Female connector, M12, 3-pin, straight, unshielded | Cable, open conductor heads | 2 m, 3-wire      | DOL-1203-G02MC | 6039075  |
|   |  |                             | 5 m, 3-wire      | DOL-1203-G05MC | 6039076  |
|   |  |                             | 10 m, 3-wire     | DOL-1203-G10MC | 6039077  |
|  | Female connector, M12, 3-pin, angled, unshielded   | Cable, open conductor heads | 2 m, 3-wire      | DOL-1203-W02MC | 6039078  |
|   |  |                             | 5 m, 3-wire      | DOL-1203-W05MC | 6039079  |
|   |  |                             | 10 m, 3-wire     | DOL-1203-W10MC | 6036752  |

Connecting cables with female connector, M8, 3-pin, PVC, chemical resistant

- **Cable material:** PVC
- **Connector material:** TPU

| Figure   | Connection type head A                            | Connection type head B      | Connecting cable | Type          | Part no. |
|--|---|-----------------------------|------------------|---------------|----------|
|   | Female connector, M8, 3-pin, straight, unshielded | Cable, open conductor heads | 2 m, 3-wire      | DOL-0803-G02M | 6010785  |
|  |   |                             | 5 m, 3-wire      | DOL-0803-G05M | 6022009  |
|  | Female connector, M8, 3-pin, angled, unshielded   | Cable, open conductor heads | 2 m, 3-wire      | DOL-0803-W02M | 6008489  |
|  |   |                             | 5 m, 3-wire      | DOL-0803-W05M | 6022010  |

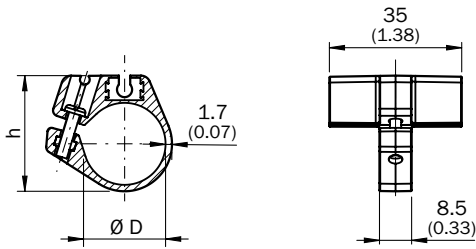
Female connectors (ready to assemble), M8, 3-pin

| Figure  | Connection type head A                            | Connection type head B | Type       | Part no. |
|---|---|------------------------|------------|----------|
|  | Female connector, M8, 3-pin, straight, unshielded | Screw-type terminals   | DOS-0803-G | 7902077  |
|  | Female connector, M8, 3-pin, angled, unshielded   | Solder connection      | DOS-0803-W | 7902078  |

Dimensional drawings (Dimensions in mm (inch))

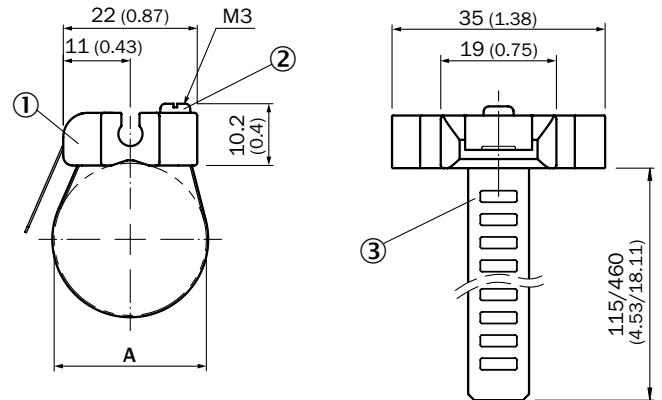
Brackets for cylinder sensors

BEF-KHZ-RC-xx



| Part no. | Type          | Ø D  | Cylinder piston Ø | H    |
|----------|---------------|------|-------------------|------|
| 2077673  | BEF-KHZ-RC-12 | 13.5 | 12                | 22.4 |
| 2077672  | BEF-KHZ-RC-16 | 17.7 | 16                | 26.6 |
| 2077671  | BEF-KHZ-RC-20 | 21.7 | 20                | 30.6 |
| 2077670  | BEF-KHZ-RC-25 | 26.8 | 25                | 35.7 |
| 2077669  | BEF-KHZ-RC-32 | 34   | 32                | 42.9 |
| 2077668  | BEF-KHZ-RC-40 | 42   | 42                | 50.9 |
| 2077667  | BEF-KHZ-RC-50 | 52.9 | 50                | 61.8 |
| 2077666  | BEF-KHZ-RC-63 | 65   | 63                | 73.9 |

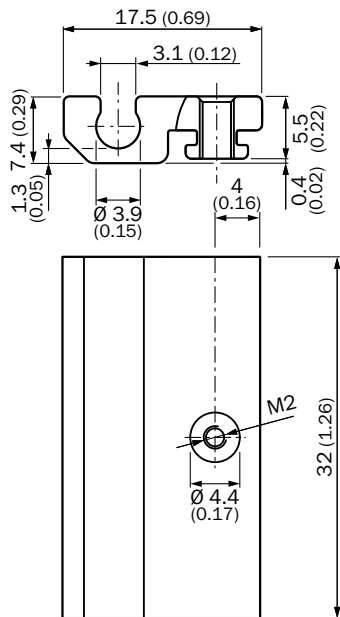
BEF-KHZ-RC1-xx



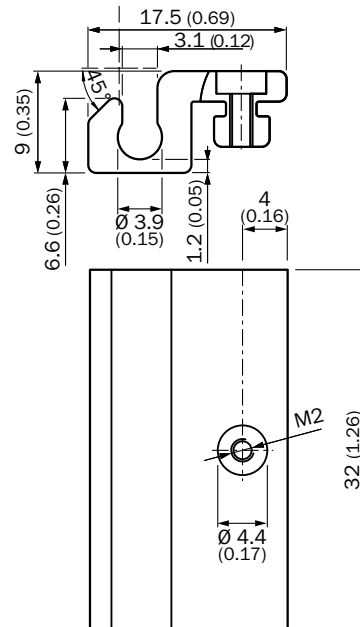
- ① Sensoradapter with C-slot for round body cylinder
- ② Fixing screw
- ③ Strap

| Part no. | Type            | Cylinder piston Ø |
|----------|-----------------|-------------------|
| 2077673  | BEF-KHZ-RC1-25  | 8 ... 25          |
| 2077672  | BEF-KHZ-RC1-130 | 8 ... 130         |

BEF-KHZ-TC2

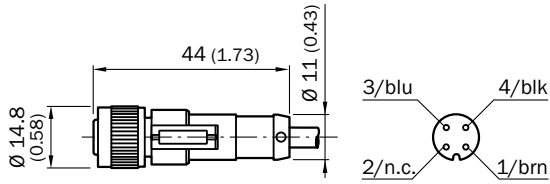


BEF-KHZ-TC1

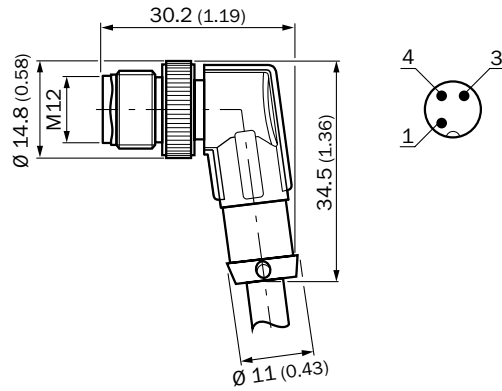


Plug connectors and cables

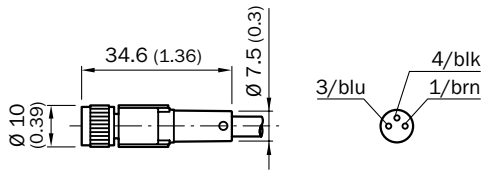
DOL-1203-GxxMC



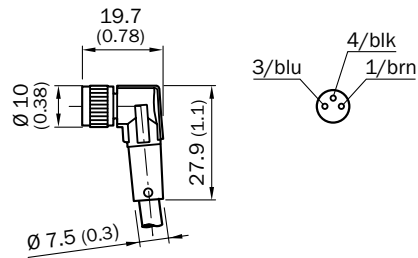
DOL-1203-WxxMC



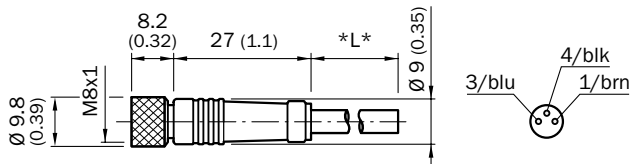
DOL-0803-GxxMC



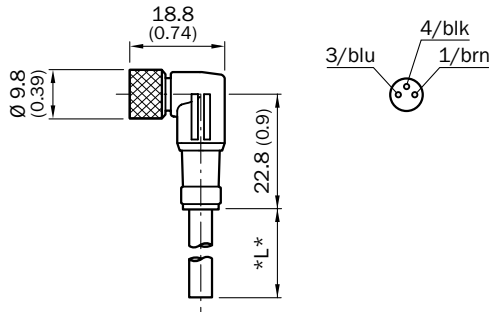
DOL-0803-WxxMC



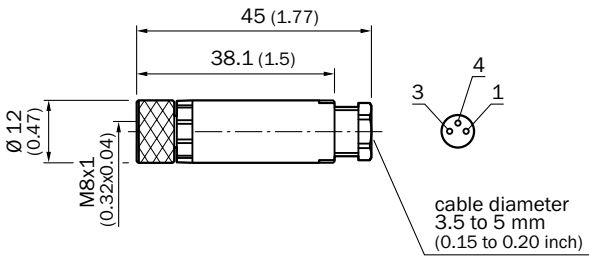
DOL-0803-GxxM



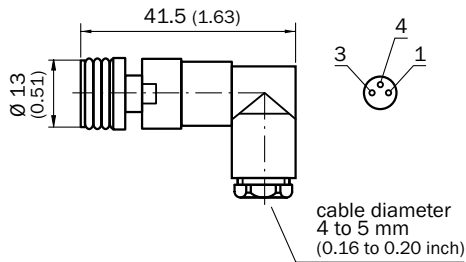
DOL-0803-WxxM



DOS-0803-G



DOS-0803-W









## REGISTER AT WWW.SICK.COM TODAY AND ENJOY ALL THE BENEFITS






- ✔ Select products, accessories, documentation and software quickly and easily.
- ✔ Create, save and share personalized wish lists.
- ✔ View the net price and date of delivery for every product.
- ✔ Requests for quotation, ordering and delivery tracking made easy.
- ✔ Overview of all quotations and orders.
- ✔ Direct ordering: submit even very complex orders in moments.
- ✔ View the status of quotations and orders at any time. Receive e-mail notifications of status changes.
- ✔ Easily repeat previous orders.
- ✔ Conveniently export quotations and orders to work with your systems.



## SERVICES FOR MACHINES AND SYSTEMS: SICK LifeTime Services

Our comprehensive and versatile LifeTime Services are the perfect addition to the comprehensive range of products from SICK. The services range from product-independent consulting to traditional product services.



- 
**Consulting and design**  
 Safe and professional
- 
**Product and system support**  
 Reliable, fast and on-site
- 
**Verification and optimization**  
 Safe and regularly inspected
- 
**Upgrade and retrofits**  
 Easy, safe and economical
- 
**Training and education**  
 Practical, focused and professional

## SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With almost 7,000 employees and over 50 subsidiaries and equity investments as well as numerous representative offices worldwide, we are always close to our customers. 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 various 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 round out 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:**

Australia, Austria, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, India, Israel, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Poland, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Arab Emirates, USA, Vietnam.

Detailed addresses and additional representatives → [www.sick.com](http://www.sick.com)



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Industrial Hall Effect/Magnetic Sensors](#) category:*

*Click to view products by [Sick](#) manufacturer:*

Other Similar products are found below :

[GT-13013](#) [GT-13040](#) [GT-14114](#) [DRR-129\(62-68\)](#) [ATS682LSHTN-T](#) [SR4P2-C7](#) [GT-13012](#) [GT-14049](#) [GT-14067](#) [GT-14132](#) [GT-18030](#)  
[103FW12-R3](#) [A1155LLHLT-T](#) [SMSA2P30CG](#) [P2D-000](#) [GN 55.2-SC-15-3](#) [GN 55.2-SC-5-3](#) [MZA70175](#) [103FW41-R1](#) [KJR-D100AN-](#)  
[DNA-VE](#) [KJR-D100AN-DNIA-V2](#) [SR-10018](#) [115L 14E 502 W06017](#) [ATS128LSETN-T](#) [TLE4906LHALA1](#) [TLE49452LHALA1](#)  
[BU52013HFV-TR](#) [MRMS591A](#) [103SR14A-1](#) [MZT7-03VPS-KR0](#) [MZT7-03VPS-KW0](#) [MZT8-03VPS-KW0](#) [MZT8-28VPS-KP0](#)  
[A1326LLHLX-T](#) [A1326LLHLT-T](#) [A1156LLHLT-T](#) [ACS770LCB-100U-PFF-T](#) [ATS617LSGTN-T](#) [AH49ENTR-G1](#) [SS360PT](#) [SS311PT](#)  
[GN 55.2-ND-15-3](#) [GN 55.2-ND-18-3](#) [GN 55.2-ND-4-3](#) [GN 55.2-ND-8-3](#) [GN 55.2-SC-10-3](#) [GN 55.4-ND-10-7,5-2](#) [GN 55.4-ND-12-9,5-2,5](#)  
[GN 55.4-ND-26-20,3-5](#) [GN 55.4-ND-7,5-4-1,5](#)