

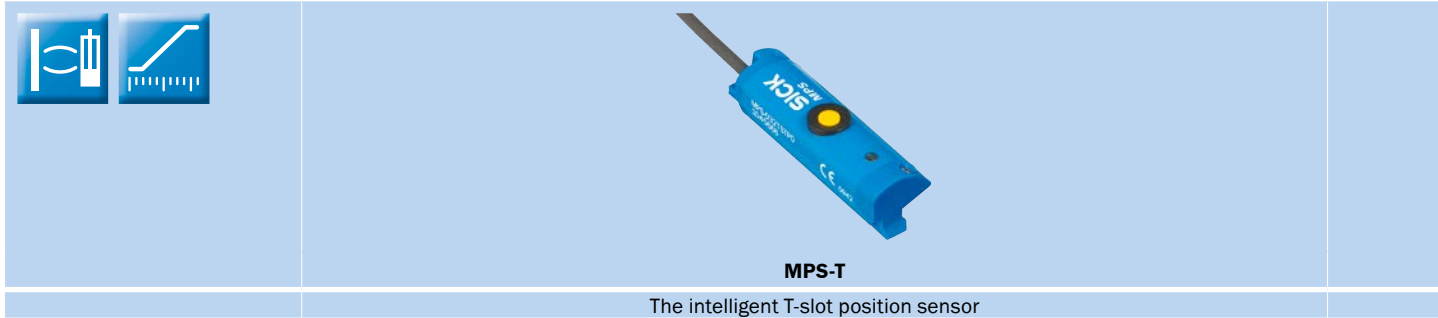


Magnetic cylinder sensors

OVERVIEW OF THE PRODUCTS

Position sensors, sensors for T-slot cylinders, sensors for C-slot cylinders


SICK
Sensor Intelligence.



MPS-T

The intelligent T-slot position sensor

Technical data overview	
Output function	Analog/IO-Link
IO-Link/teach-in	✓
Cylinder types with adapter	Round body cylinder Profile and tie-rod cylinders Dove-tail groove cylinder SMC rail CDQ2 SMC rail ECDQ2 SMC cylinder with C-slot
Measuring range	32 mm ... 256 mm
Housing length	45 mm ... 269 mm
Supply voltage	15 V DC ... 30 V DC

At a glance	
	<ul style="list-style-type: none"> • Position sensor for direct mounting in T-slots on pneumatic cylinders • Sensor variants with measuring ranges from 32 mm to 256 mm • Analog outputs (for current or voltage), switching output, and IO-Link • Mounting on other cylinder types (e.g., round body cylinders) is possible with adapters
	

Detailed information → www.sick.com/MPS-T



MPS-C

The intelligent C-slot position sensor



MPA

The intelligent position sensor for large cylinders

Analog, IO-Link, switching output



Round body cylinder
Profile and tie-rod cylinders
SMC rail CDQ2
SMC rail ECDQ2

25 mm ... 200 mm

41 mm ... 215 mm

12 V DC ... 30 V DC

Analog, IO-Link



Round body cylinder
Tie-rod cylinder
T-slot cylinder
Festo cylinder DSBC
SMC cylinder CP96

107 mm ... 1,007 mm

109 mm ... 1,009 mm

15 V DC ... 30 V DC

- Position sensor for direct mounting in C-slots on pneumatic cylinders and grippers
- Sensor variants with measuring ranges from 25 mm to 200 mm
- Analog outputs (for current or voltage), switching output, and IO-Link
- Mounting on other cylinder types (e.g., round body cylinders) is possible with adapters






→ www.sick.com/MPS-C



- Position sensor for use on pneumatic cylinders
- Sensor variants with measuring ranges from 107 mm to 1,007 mm
- Analog outputs (for current or voltage), switching output, and IO-Link
- Mounting with adapters on a multitude of cylinder types (tie-rod cylinders, round body cylinders, profile cylinders)



→ www.sick.com/MPA

	 <p style="text-align: center;">MZ2Q-T</p>	 <p style="text-align: center;">MZT7</p>	
	<p style="text-align: center;">Magnetic cylinder sensors with two individually adjustable switching points</p>	<p style="text-align: center;">The essentials taken to the max</p>	

Technical data overview			
Output function	N/O contact	N/O contact/N/C contact	
IO-Link/teach-in	✓	-	
Special features	-	2 x label holders plugged in	
Cylinder types with adapter	Profile cylinder Tie-rod cylinder Round body cylinder Dove-tail groove cylinder SMC rail CDQ2 SMC rail ECDQ2	Profile cylinder Tie-rod cylinder Round body cylinder Dove-tail groove cylinder SMC rail CDQ2 SMC rail ECDQ2	
Housing length	40 mm	29.5 mm	
Supply voltage	12 V DC ... 30 V DC	10 V DC ... 30 V DC	

At a glance			
	<ul style="list-style-type: none"> • Can be used in all standard cylinders, linear slides, and grippers using the T-slot and – with the help of adapters – in round rod, tie-rod, and profile cylinders, and cylinders with a dovetail groove • Insertion of the sensor into the slot from above makes mounting quick and easy • Easy adjustment of two switching points via teach-in pushbutton • LEDs to indicate both switching points • Detection zone up to 50 mm stroke <div style="text-align: center;">  </div>	<ul style="list-style-type: none"> • Can be used in all standard cylinders, linear slides, and grippers using the T-slot and – with the help of adapters – in round rod, tie-rod, and profile cylinders, and cylinders with a dovetail groove • Insertion of the sensor into the slot from above makes mounting quick and easy • Fixing screw combines hexagon socket screw and slotted screw elements • LED for indicating the output state • Enclosure rating: IP 67 <div style="text-align: center;">  </div>	

Detailed information	→ www.sick.com/MZ2Q-T	→ www.sick.com/MZT7	
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RZT7

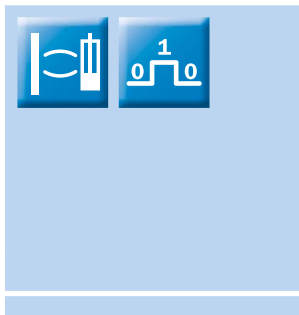
The essentials taken to the max



MZT8

Typically SICK: quick mounting, precise switching, high temperature resistance

<p>N/O contact/N/C contact -</p>	<p>N/O contact/N/C contact -</p>
<p>Expanded operating temperature</p>	<p>With 2 labeling grommets 50 units of collective packaging 20 ms pulse stretching Temperature-resistant up to 100 °C Expanded operating temperature</p>
<p>Profile cylinder Tie-rod cylinder Round body cylinder Dove-tail groove cylinder SMC rail CDQ2 SMC rail ECDQ2</p>	<p>Profile cylinder Tie-rod cylinder Round body cylinder Dove-tail groove cylinder SMC rail CDQ2 SMC rail ECDQ2</p>
<p>29.5 mm / 32.5 mm</p>	<p>24 mm</p>
<p>5 V AC/DC ... 30 V AC/DC 5 V AC/DC ... 230 V AC/DC ¹⁾ 5 V AC/DC ... 120 V AC/DC ²⁾</p>	<p>10 V DC ... 30 V DC</p>
<ul style="list-style-type: none"> • Can be used in all standard cylinders, linear slides, and grippers using the T-slot and – with the help of adapters – in round rod, tie-rod, and profile cylinders, and cylinders with a dovetail groove • Insertion of the sensor into the slot from above makes mounting quick and easy • Fixing screw combines hexagon socket screw and slotted screw elements • LED for indicating the output state • Enclosure rating: IP 67 • Supply voltage up to 230 V <p>¹⁾ Mains fuse F < 0.5 A, IEC 60127-2 Sheet 1. ²⁾ Mains fuse F < 0.8 A, IEC 60127-2 Sheet 1.</p> <div data-bbox="379 1577 512 1709" data-label="Image"> </div>	<ul style="list-style-type: none"> • Can be used in all standard cylinders, linear slides, and grippers using the T-slot and – with the help of adapters – in round rod, tie-rod, and profile cylinders, and cylinders with a dovetail groove • Insertion of the sensor into the slot from above makes mounting quick and easy • Fixing screw combines hexagon socket screw and slotted screw elements • High-temperature variants: temperature-resistant up to 100 °C • Very short sensor housing for use in short stroke cylinders • Enclosure ratings: IP 67, IP 68, IP 69K <div data-bbox="1042 1577 1174 1709" data-label="Image"> </div>
<p>→ www.sick.com/RZT7</p>	<p>→ www.sick.com/MZT8</p>



MZT8 VIA

Typically SICK: precision sensors for high machine output

Technical data overview

Output function	N/O contact
IO-Link/teach-in	-
Special features	Optical adjustment indicator/LED (yellow) Power LED (green) Interior housing temperature (via IO-Link) Counter function (via IO-Link)
Cylinder types with adapter	Profile cylinder Tie-rod cylinder Round body cylinder Dove-tail groove cylinder SMC rail CDQ2 SMC rail ECDQ2
Housing length	24 mm
Supply voltage	10 V DC ... 30 V DC

At a glance

- Can be used in all standard cylinders, linear slides, and grippers using the T-slot and – with the help of adapters – in round rod, tie-rod, and profile cylinders, and cylinders with a dovetail groove
- Insertion of the sensor into the slot from above makes mounting quick and easy
- Fixing screw combines hexagon socket screw and slotted screw elements
- Yellow LED as optical adjustment indicator and output state display
- Green LED acts as a status indicator
- Very short sensor housing for use in short stroke cylinders
- Enclosure ratings: IP 67, IP 68, IP 69K
- IO-Link and automation functions



Detailed information

→ www.sick.com/MZT8_VIA



MZT8 ATEX

Typically SICK: maximum performance for potentially explosive areas



MZT8 Twin

Works with high precision: Cylinder sensor with two sensor heads

N/O contact

-

-

Profile cylinder
Tie-rod cylinder
Round body cylinder
Dove-tail groove cylinder
SMC rail CDQ2
SMC rail ECDQ2

24 mm

8.2 V DC ... 20 V DC
10 V DC ... 26 V DC

N/O contact

-

Two sensor heads on one male connector

Profile cylinder
Tie-rod cylinder
Round body cylinder
Dove-tail groove cylinder
SMC rail CDQ2
SMC rail ECDQ2

24 mm

10 V DC ... 30 V DC

- Can be used in all standard cylinders, linear slides, and grippers using the T-slot and – with the help of adapters – in round rod, tie-rod, and profile cylinders, and cylinders with a dovetail groove
- Insertion of the sensor into the slot from above makes mounting quick and easy
- Fixing screw combines hexagon socket screw and slotted screw elements
- The variants correspond to the requirements of ATEX categories 1D, 1G and 3D, 3G
- Very short sensor housing for use in short stroke cylinders
- Enclosure rating: IP 67






→ www.sick.com/MZT8_ATEX



- Sensor variant for T-slot cylinder with two MZT8 sensor heads on one male connector
- Sensors are inserted into the cylinder slot from above
- Fixing screw combines hexagon socket screw and slotted screw elements
- Temperature-resistant up to 80 °C
- Very short sensor housing for use in short stroke cylinders
- Enclosure rating: IP68



→ www.sick.com/MZT8_Twin

	 <p style="text-align: center;">MZ2Q-C</p>	 <p style="text-align: center;">MZC1</p>	
	<p style="text-align: center;">Magnetic cylinder sensors with two individually adjustable switching points</p>	<p style="text-align: center;">Insert, fasten, fitted</p>	

Technical data overview			
Output function	N/O contact	N/O contact/N/C contact	
IO-Link/teach-in	✓	-	
Special features	Special hysteresis Software V303	Sensor element distance 7.95 mm. 2 x label holders plugged in	
Cylinder types with adapter	SMC rail ECDQ2 SMC rail CDQ2	SMC rail CDQ2 SMC rail ECDQ2 Round body cylinder Profile and tie-rod cylinders	
Housing length	19.5 mm	23.7 mm	
Supply voltage	12 V DC ... 30 V DC	10 V DC ... 30 V DC	

At a glance			
	<ul style="list-style-type: none"> • Can be used in all standard cylinders, linear slides, and grippers using the C-slot and – with the help of adapters – in round rod, tie-rod, and profile cylinders • Insertion of the sensor into the slot from above makes mounting quick and easy • Easy adjustment of two switching points via teach-in pushbutton • LEDs to indicate both switching points • Detection zone up to 50 mm stroke <div style="text-align: center;">  </div>	<ul style="list-style-type: none"> • Can be used in all standard cylinders, linear slides, and grippers using the C-slot and – with the help of adapters – in round rod, tie-rod, and profile cylinders • Insertion of the sensor into the slot from above makes mounting quick and easy • Fixing screw combines hexagon socket screw and slotted screw elements • LED for indicating the output state • Enclosure ratings: IP 67, IP 68, IP 69K <div style="text-align: center;">  </div>	

Detailed information	→ www.sick.com/MZ2Q-C	→ www.sick.com/MZC1	
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MZC1 VIA

Insert, fasten, fitted



MZC1 Twin

Works with high precision:
Cylinder sensor with two sensor heads

N/O contact

-

Optical adjustment indicator/LED (yellow)
Power LED (green)
Interior housing temperature (via IO-Link)
Counter function (via IO-Link)

SMC rail CDQ2
SMC rail ECDQ2

23.7 mm

10 V DC ... 30 V DC

N/O contact

-

Two sensor heads on one male connector

SMC rail CDQ2
SMC rail ECDQ2
Round body cylinder
Profile and tie-rod cylinders

23.7 mm

10 V DC ... 30 V DC

- Can be used in all standard cylinders, linear slides, and grippers using the C-slot and – with the help of adapters – in round rod, tie-rod, and profile cylinders
- Insertion of the sensor into the slot from above makes mounting quick and easy
- Fixing screw combines hexagon socket screw and slotted screw elements
- Yellow LED as optical adjustment indicator and output state display
- Green LED acts as a status indicator
- Enclosure ratings: IP 67, IP 68, IP 69K
- IO-Link and automation functions







→ www.sick.com/MZC1_VIA



- Sensor variant for C-slot cylinder with two MZC1 sensor heads on one male connector
- Sensors are inserted into the cylinder slot from above
- Combined fixing screw (hexagon socket screw and slotted screw)
- Temperature-resistant up to 80 °C
- Enclosure rating: IP68



→ www.sick.com/MZC1-Twin

 	 <p style="text-align: center;">RZC1</p>	 <p style="text-align: center;">MZC2</p>	
	Insert, fasten, fitted	Short cylinder sensor for pneumatic grippers and miniature cylinders	

Technical data overview			
Output function	N/O contact	N/O contact	
IO-Link/teach-in	-	-	
Special features	-	Completely embedded mounting in the slot, providing protection	
Cylinder types with adapter	SMC rail CDQ2 SMC rail ECDQ2	SMC rail ECDQ2 SMC rail CDQ2	
Housing length	26.3 mm	19.5 mm	
Supply voltage	5 V AC/DC ... 120 V AC/DC	10 V DC ... 30 V DC	

At a glance			
	<ul style="list-style-type: none"> • Can be used in all standard cylinders, linear slides, and grippers using the C-slot and – with the help of adapters – in round rod, tie-rod, and profile cylinders • Insertion of the sensor into the slot from above makes mounting quick and easy • Fixing screw combines hexagon socket screw and slotted screw elements • LED for indicating the output state • Enclosure ratings: IP 67, IP 68, IP 69K • Supply voltage up to 230 V <div style="text-align: center; margin-top: 20px;">  </div>	<ul style="list-style-type: none"> • Short housing (19.5 mm) for use in pneumatic grippers and miniature cylinders • Fits in all commonly-used C-slots, e.g. from SMC, Bimba, Schunk, Zimmer and Festo • Short, precise switching point, ideal for applications with small stroke • LED for indicating the output state • IP67 enclosure rating • Sensor fully recessed in the slot <div style="text-align: center; margin-top: 20px;">  </div>	
Detailed information	→ www.sick.com/RZC1	→ www.sick.com/MZC2	



MZCG

Extremely short cylinder sensor for pneumatic grippers and miniature cylinders



MZCG VIA

Extremely short cylinder sensor for pneumatic grippers and miniature cylinders

NO / NC

-
-

SMC rail CDQ2
SMC rail ECDQ2

12.2 mm
10 V DC ... 30 V DC

N/O contact



Optical adjustment indicator/LED (yellow)
Power LED (green)
Interior housing temperature (via IO-Link)
Counter function (via IO-Link)

SMC rail CDQ2
SMC rail ECDQ2

12.2 mm
10 V DC ... 30 V DC

- Extremely short housing (12.2 mm) for applications in pneumatic grippers and miniature cylinders
- Fits in all commonly-used C-slots, e.g. from Schunk, Zimmer, Festo or SMC
- Short, precise switching point, ideal for applications with small stroke
- Cable suitable for drag chain
- LED for indicating the output state
- IP 68 enclosure rating



→ www.sick.com/MZCG

- Extremely short housing (12.2 mm) for applications in pneumatic grippers and miniature cylinders
- Fits in all commonly-used C-slots, e.g. from Schunk, Zimmer, Festo or SMC
- Short, precise switching point, ideal for applications with small stroke
- Cable suitable for drag chain
- IP 68 enclosure rating
- Yellow LED as optical adjustment indicator and output state display
- Green LED acts as a status indicator
- IO-Link and automation functions



→ www.sick.com/MZCG_VIA

SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 9,700 employees and over 50 subsidiaries and equity investments as well as numerous agencies 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 further locations → www.sick.com