



Magnetic cylinder sensors

PRODUCTS AT A GLANCE

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 cylinder and tie-rod cylinder Cylinders with dovetail-slot SMC rails CDQ2 SMC rails ECDQ2 SMC cylinders 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

- Position sensor for direct mounting in T-slots on pneumatic cylinders
- Sensor variants with measuring ranges of 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, Output type



Round body cylinder
Profile cylinder and tie-rod cylinder
SMC rails CDQ2
SMC rails 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 of 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 of 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;">RZT7</p>	
	Magnetic cylinder sensors with two individually adjustable switching points	The essentials taken to the max	The essentials taken to the max	

Technical data overview				
Output function	NO	NO / NC	NO / NC	
IO-Link/ Teach-in	✓	-	-	
Special features	-	-	-	
Cylinder types with adapter	Round body cylinder Profile cylinder and tie-rod cylinder Cylinders with dovetail-slot SMC rails CDQ2 SMC rails ECDQ2 SMC cylinders with C-slot	Round body cylinder Profile cylinder and tie-rod cylinder Cylinders with dovetail-slot SMC rails CDQ2 SMC rails ECDQ2 SMC cylinders with C-slot	Round body cylinder Profile cylinder and tie-rod cylinder Cylinders with dovetail-slot SMC rails CDQ2 SMC rails ECDQ2 SMC cylinders with C-slot	
Housing length	40 mm	29.5 mm	29.5 mm / 32.5 mm	
Supply voltage	12 V DC ... 30 V DC 15 V DC ... 30 V DC	10 V DC ... 30 V DC	5 V AC/DC ... 30 V AC/DC 5 V AC/DC ... 120 V AC/DC 5 V AC/DC ... 230 V AC/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 • Drop-in mounting from above simplifies handling and assembly • Easy adjustment of two switching points via teach-in pushbutton • LEDs for indicating the two switching points • Detection range up to 50 mm stroke 	<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 • Drop-in mounting from above simplifies handling and assembly • Locking screw combines an Allen key and slotted screw • LED for indicating the output state • Enclosure rating: IP 67 	<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 • Drop-in mounting from above simplifies handling and assembly • Locking screw combines an Allen key and slotted screw • LED for indicating the output state (depending on type) • Enclosure rating: IP 67 • Supply voltage up to 230 V 	
Detailed information	→ www.sick.com/MZ2Q-T	→ www.sick.com/MZT7	→ www.sick.com/RZT7	



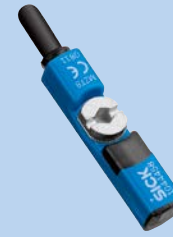
MZT8

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



MZT8 VIA

Typically SICK: precision sensors for high machine output



MZT8 ATEX

Typically SICK: maximum performance for potentially explosive areas

	NO / NC	NO	NO
	-	-	-
	Temperature-resistant up to 100 °C	Visual installation aid/LED indicator (yellow), Power LED (green)	-
	Round body cylinder Profile cylinder and tie-rod cylinder Cylinders with dovetail-slot SMC rails CDQ2 SMC rails ECDQ2 SMC cylinders with C-slot	Round body cylinder Profile cylinder and tie-rod cylinder Cylinders with dovetail-slot SMC rails CDQ2 SMC rails ECDQ2 SMC cylinders with C-slot	Round body cylinder Profile cylinder and tie-rod cylinder Cylinders with dovetail-slot SMC rails CDQ2 SMC rails ECDQ2 SMC cylinders with C-slot
	24 mm	24 mm	24 mm
	10 V DC ... 24 V DC 10 V DC ... 30 V DC	10 V DC ... 30 V DC	8.2 V DC ... 20 V DC 10 V DC ... 26 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
- Drop-in mounting from above simplifies handling and assembly
- Locking screw combines an Allen key and slotted screw
- 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



→ www.sick.com/MZT8

- 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
- Drop-in mounting from above simplifies handling and assembly
- Locking screw combines an Allen key and slotted screw
- Yellow LED as visual installation aid and switching status indicator
- Operating indicator via green LED
- Very short sensor housing for use in short stroke cylinders
- Enclosure ratings: IP 67, IP 68, IP 69K






→ www.sick.com/MZT8_VIA

- 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
- Drop-in mounting from above simplifies handling and assembly
- Locking screw combines an Allen key and slotted screw
- Variants fulfill 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

	 <p style="text-align: center;">MZ2Q-C</p>	 <p style="text-align: center;">MZC1</p>	
	<p>Magnetic cylinder sensors with two individually adjustable switching points</p>	<p>Drop-in, install, done</p>	

Technical data overview			
Output function	NO	NO / NC	
IO-Link/ Teach-in	✓	-	
Special features	-	-	
Cylinder types with adapter	Round body cylinder Profile cylinder and tie-rod cylinder SMC rails CDQ2 SMC rails ECDQ2	Round body cylinder Profile cylinder and tie-rod cylinder SMC rails CDQ2 SMC rails ECDQ2	
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 • Drop-in mounting from above simplifies handling and assembly • Easy adjustment of two switching points via teach-in pushbutton • LEDs for indicating the two switching points • Detection range up to 50 mm stroke  | <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 • Drop-in mounting from above simplifies handling and assembly • Locking screw combines an Allen key and slotted screw • LED for indicating the output state • Enclosure ratings: IP 67, IP 68, IP 69K  |
|---|---|

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

Drop-in, install, done



RZC1

Drop-in, install, done

	NO		NO
	-		-
	Visual installation aid/LED indicator (yellow), Power LED (green)		-
	Round body cylinder Profile cylinder and tie-rod cylinder		Round body cylinder Profile cylinder and tie-rod cylinder
	SMC rails CDQ2 SMC rails ECDQ2		SMC rails CDQ2 SMC rails ECDQ2
	23.7 mm		26.3 mm
	10 V DC ... 30 V DC		5 V AC/DC ... 30 V AC/DC 5 V AC/DC ... 120 V AC/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
- Drop-in mounting from above simplifies handling and assembly
- Locking screw combines an Allen key and slotted screw
- Yellow LED as visual installation aid and switching status indicator
- Operating indicator via green LED
- Enclosure ratings: IP 67, IP 68, IP 69K



→ www.sick.com/MZC1_VIA

- 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
- Drop-in mounting from above simplifies handling and assembly
- Locking screw combines an Allen key and slotted screw
- LED for indicating the output state
- Enclosure ratings: IP 67, IP 68, IP 69K
- Supply voltage up to 230 V



→ www.sick.com/RZC1

SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 7,400 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