

# **Proximity sensors**

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## Selection guide proximity sensors

				Ind	uctive	oroximi	ity sens	ors				Capacitive proximity sensors		p	/lagnet proximit sensors	ty
	IM Miniature	IM Standard	IM Triplex	IM Inox	IMF Food & Beverage	IMA Analog	IQ Miniature	IQ Standard	lQ Flat	IH Miniature	IH Standard	СМ	00	MM	MM Namur	MQ
Task																
Detection of metal																
Detection of powders, granules, liquid, solid												•				
Detection of magnets																
Design																
Cylindrical																
Rectangular		_			_							⊢		<u> </u>		
Sleeve design																_
Maximum sensing range in mm																
≤1																
≤ 2																
≤ 4																
≤8																
≤ 10												_				
≤ 20												_				
≤ 40																
≤ 60																
≤ 120																
Housing material																
Plastic																
VISTAL™																
Nickel-plated brass												•		_		
Stainless steel																
Special features																
Namur output																
Analog output																
Full metal sensors																
Triple sensing range																
IO-Link		•														
Special requirements																
Hygiene & wet areas																
Potentially explosive atmospheres																
High mechanical load capability																
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### Dimensions of proximity sensors

				Ind	uctive <sub>I</sub>	oroximi	ty sens	ors				Capacitive proximity sensors		p	lagneti roximit sensors	y
	IM Miniature	IM Standard	IM Triplex	IM Inox	IMF Food & Beverage	IMA Analog	IQ Miniature	IQ Standard	lQ Flat	IH Miniature	IH Standard	СМ	Č	MM	MM Namur	MQ
Thread size																
M4																
M5																
M8																
M12																
M18																
M30																
Dimensions in mm (W x H x D)																
5 x 5 x 25																
8 x 8 x 40																
8 x 16 x 4																
10 x 30 x 6																
10 x 16 x 28																
10.3 x 37 x 16																
12 x 26 x 40																
20 x 32 x 8																
25 x 50 x 10																
28 x 46 x 5,5																
35 x 15 x 69.5																
40 x 40 x 66																
40 x 40 x 121																
80 x 40 x 105																
Diameter in mm																
Ø 3												<u> </u>				
Ø 4												<u> </u>				
Ø 6.5																
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- Small housing sizes and light weight
- Integrated LED indicator
- · Rugged stainless steel housing
- M4 and M5 thread sizes available

### **Your benefits**

- Trouble-free installation in spacecritical applications provides a high degree of design freedom, saving machine space
- Reliable detection of rapid handling and assembly processes increases throughput
- High-visibility indicator LED for simple monitoring of operational state reduces commissioning time
- High positioning accuracy increases machine throughput
- High resistance to shock and vibrations reduces maintenance costs

#### → www.mysick.com/en/IM\_Miniature

For more information, just 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.



## Ordering information

Other models available at www.mysick.com/en/IM\_Miniature

#### **IM04**

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
				PNP	Cable, 3-wire, 2 m, PUR	IM04-0B6PS-ZU1	6020145
M4 x 0,5	//4 x 0,5 0.6 mm Flush	Flush	NO		Cable with plug, M8, 3-pin, with knurled screws, 0.2 m, PUR	IM04-0B6PS-ZR1	6042085
				NPN	Cable, 3-wire, 2 m, PUR	IM04-0B6NS-ZU1	6020146
		NC	PNP	Cable, 3-wire, 2 m, PUR	IM04-0B6P0-ZU1	6020147	

### IM05

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
				PNP	Cable, 3-wire, 2 m, PVC	IM05-0B8PS-ZW1	6011591
			NO	T INI	Connector M8, 3-pin	IM05-0B8PS-ZT1	6020110
	0.8 mm	<b>-</b>	NO	NPN	Cable, 3-wire, 2 m, PVC	IM05-0B8NS-ZW1	6020155
	0.6 11111	Flush		INPIN	Connector M8, 3-pin	IM05-0B8NS-ZT1	6020158
			NC	PNP	Connector M8, 3-pin	IM05-0B8P0-ZT1	6020159
			NC	NPN	Cable, 3-wire, 2 m, PVC	IM05-0B8N0-ZW1	6020157
MEVOE			NO	PNP	Cable, 3-wire, 2 m, PUR	IM05-1B5PSVU2S	6049735
M5 x 0,5				PINP	Connector M8, 3-pin	IM05-1B5PSVT0S	6049739
				NIDNI	Cable, 3-wire, 2 m, PUR	IM05-1B5NSVU2S	6049733
	1 E mm	Eluoh		NPN	Connector M8, 3-pin	IM05-1B5NSVT0S	6049737
	1.5 mm	Flush		PNP	Cable, 3-wire, 2 m, PUR	IM05-1B5P0VU2S	6049736
			NC	PINP	Connector M8, 3-pin	IM05-1B5P0VT0S	6049740
			NC	NDN	Cable, 3-wire, 2 m, PUR	IM05-1B5NOVU2S	6049734
				NPN	Connector M8, 3-pin	IM05-1B5NOVTOS	6049738



- Precise operating distances due to ASIC technology
- Extra tough thanks to high fastener torque and hot melt adhesive filling
- M8 to M30 sizes available
- Operating distance from 1.5 mm to 20 mm
- IP 67 enclosure rating
- Operating temperature from -25° C to +70° C
- DC, AC and AC/DC versions available
- · Customer-specific models available

#### Your benefits

- · Reduced machine downtime
- Reduced mechanical damage
- Fewer maintenance costs due to longer service life
- High resistance to shock and vibrations



For more information, just 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.



Ordering information

Other models available at www.mysick.com/en/IM\_Standard

### IME08

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Housing	Model name	Part no.
	1.5 mm		NO			Standard	IME08-1B5PSZT0S	1040838
	2 mm	Flush		PNP	Connector	Short-body housing	IME08-1B5PSZT0K	1040837
		Flusii		PINP	M8, 3-pin	Standard	IME08-02BPSZT0S	1040870
M8 x 1						Short-body housing	IME08-02BPSZT0K	1040869
IVIOXI	2 E mm		NO		Connector	Standard	IME08-2N5PSZT0S	1040854
	2.5 mm	Non-flush		PNP		Short-body housing	IME08-2N5PSZT0K	1040853
		NOH-HUSH	NO	FINE	M8, 3-pin	Standard	IME08-04NPSZTOS	1040886
4 mm					Short-body housing	IME08-04NPSZTOK	1040885	

### IME12

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Housing	Model name	Part no.
	2 mm					Standard	IME12-02BPSZC0S	1040732
	2 111111	Flush	NO	PNP	Connector	Short-body housing	IME12-02BPSZC0K	1040731
	riusii	NO	PNP	M12, 4-pin	Standard	IME12-04BPSZCOS	1040764	
M12 x 1	4 mm					Short-body housing	IME12-04BPSZCOK	1040763
IVI 12 X 1	4 111111		NO	DMD	Connector	Standard	IME12-04NPSZCOS	1040748
		Non-flush				Short-body housing	IME12-04NPSZCOK	1040747
8 mm	NOH-HUSH	NO	PNP	M12, 4-pin	Standard	IME12-08NPSZCOS	1040780	
	O IIIII					Short-body housing	IME12-08NPSZCOK	1040779

### IME18

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Housing	Model name	Part no.
	5 mm		NO			Standard	IME18-05BPSZCOS	1040934
	3 111111	Flush		PNP	Connector	Short-body housing	IME18-05BPSZCOK	1040933
	riusii	NO	PNP	M12, 4-pin	Standard	IME18-08BPSZCOS	1040966	
M18 x 1	8 mm					Short-body housing	IME18-08BPSZCOK	1040965
INITO X T	0 111111			DNID	Connector	Standard	IME18-08NPSZCOS	1040950
		Non fluch				Short-body housing	IME18-08NPSZCOK	1040949
12 mm	Non-flush	NO	PNP	M12, 4-pin	Standard	IME18-12NPSZCOS	1040982	
					Short-body housing	IME18-12NPSZCOK	1040981	

### IME30

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Housing	Model name	Part no.
	10 mm		No		Connector	Standard	IME30-10BPSZC0S	1040998
	10 11111	Flush		PNP		Short-body housing	IME30-10BPSZC0K	1040997
	FluSII	NO	PINP	M12, 4-pin	Standard	IME30-15BPSZC0S	1041030	
M30 x 1.5	15 mm					Short-body housing	IME30-15BPSZC0K	1041029
IVISU X 1.5	13 111111		NO		Connector	Standard	IME30-15NPSZCOS	1041014
		Non-flush		PNP		Short-body housing	IME30-15NPSZCOK	1041013
20 mm	NOH-HUSH	NO	FINE	M12, 4-pin	Standard	IME30-20NPSZC0S	1041046	
					Short-body housing	IME30-20NPSZCOK	1041045	

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
				M12	BEF-WG-M12	5321869
0		Mounting brackets, straight	Steel, zinc coated	M18	BEF-WG-M18	5321870
	Mounting hypotote /plates			M30	BEF-WG-M30	5321871
40	Mounting brackets/plates	Mounting brackets, 90°		M12	BEF-WN-M12	5308447
90				M18	BEF-WN-M18	5308446
40				M30	BEF-WN-M30	5308445



- Triple operating distance up to 40 mm
- Operating temperature from -25° C to +70 °C
- High switching frequencies
- M8 to M30 housings

### **Your benefits**

- Reduced machine downtime and maintenance costs
- Large operating reserve due to triple operating distance improves machine throughput – no missed targets
- Saves installation space on the machine. Less space required for the same operating distance when compared with standard sensors
- Lower risk of mechanical damage due their ability to be mounted further from the target
- High level of sensitivity makes them suitable for detecting difficult parts such as wires, thin sheets, small screws – reduces design and installation time

#### → www.mysick.com/en/IM\_Triplex

For more information, just 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.



**Ordering information** 

Other models available at www.mysick.com/en/IM\_Triplex

### **IM08**

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
		Quasi-flush	NO	PNP	Connector M8, 3-pin	IM08-03BPS-ZT1	6025574
	3 mm			FINE	Cable, 3-wire, 2 m, PVC	IM08-03BPS-ZW1	6027505
MQ v 1				NPN	Cable, 3-wire, 2 m, PVC	IM08-03BNS-ZW1	6028074
MOYI		Non-flush	NO	PNP	Connector M8, 3-pin	IM08-06NPS-ZT1	6027508
	6 mm			FINE	Cable, 3-wire, 2 m, PVC	IM08-06NPS-ZW1	6027506
				NPN	Cable, 3-wire, 2 m, PVC	IM08-06NNS-ZW1	6027507

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### IM12

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
				PNP	Connector M12, 4-pin	IM12-06BPS-ZC1	6027511
	6 mm	Quasi-flush	NO	PNP	Cable, 3-wire, 2 m, PVC	IM12-06BPS-ZW1	6027509
		Quasi-ilusii		NPN	Connector M12, 4-pin	IM12-06BNS-ZC1	6030524
M12 x 1			NC	PNP	Cable, 3-wire, 2 m, PVC	IM12-06BPO-ZW1	6027510
				PNP	Connector M12, 4-pin	IM12-10NPS-ZC1	6027514
	10 mm	Non-flush	NO	PINP	Cable, 3-wire, 2 m, PVC	IM12-10NPS-ZW1	6027512
				NPN	Cable, 3-wire, 2 m, PVC	IM12-10NNS-ZW1	6027513

### IM18

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
					Connector M12, 4-pin	IM18-12BPS-ZC1	6027517
	12 mm	Quasi-flush	NO	PNP	Cable, 3-wire, 2 m, PVC	IM18-12BPS-ZW1	6027515
	12 111111	Quasi-iiusii	NO		Connector M12, 4-pin	IM18-12BPS-ZCK	6025569
M18 x 1				NPN	Cable, 3-wire, 2 m, PVC	IM18-12BNS-ZW1	6027516
MITOXI				PNP	Connector M12, 4-pin	IM18-20NPS-ZC1	6027519
	20			PNP	Cable, 3-wire, 2 m, PVC	IM18-20NPS-ZW1	6027518
	20 mm	Non-flush	NO	NDN	Connector M12, 4-pin	IM18-20NNS-ZC1	6041997
				NPN	Cable, 3-wire, 2 m, PVC	IM18-20NNS-ZW1	6028093

### IM30

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
				PNP	Connector M12,	IM30-22BPS-ZC1	6027521
				FINE	4-pin	IM30-22BPS-ZCK	6025566
	22 mm	Quasi-flush	NO	NPN	Connector M12, 4-pin	IM30-22BNS-ZC1	6033033
M30 x 1.5					Cable, 3-wire, 2 m, PVC	IM30-22BNS-ZW1	6027520
			NC	PNP	Connector M12, 4-pin	IM30-22BPO-ZCK	6025568
	40 mm	Non-flush	NO	NPN	Connector M12, 4-pin	IM30-40NNS-ZC1	6033087
	40 111111	Non-IIUSII	NO	PNP	Connector M12, 4-pin	IM30-40NPS-ZC1	6027522

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
				M8	BEF-WN-M08	5321721
40	Mounting brackets/plates	Mounting brackets	Steel, zinc	M12	BEF-WN-M12	5308447
90			coated	M18	BEF-WN-M18	5308446
40				M30	BEF-WN-M30	5308445
		Terminal brackets	Plastic (PA12), glass-fiber reinforced	M8	BEF-KHF-M08	2051478
	Terminal and alignment brackets			M12	BEF-KHF-M12	2051480
				M18	BEF-KHF-M18	2051482



- Stainless steel housing (316L/1.4404)
- Extremely watertight (IP 68/IP 69K)
- Triple sensing distance
- · High resistance to mechanical stress
- Watertight housing suitable for use in hygienic and wash down areas
- Resistant to aggressive cleaning agents
- Visual adjustment indicator via output LFD

#### Your benefits

- Less machine downtime due to rugged sensor design
- Cost reduction due to long service life even under the most extreme ambient conditions
- Quick and easy installation due to adjustment indicator via LEDs
- Large operating reserve due to triple operating distance
- High resistance to shock and impact due to stainless steel sensing face
- No restrictions on cleaning agents or processes, ensuring reliable operation



For more information, just 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.



### **Ordering information**

**EC** LAB

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Other models available at www.mysick.com/en/IM\_INOX

#### IM12

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
		Flush	NO	PNP	Connector M12, 4-pin	IM12-06BPS-NC1	6027572
	6 mm		NO	NPN	Connector M12, 4-pin	IM12-06BNS-NC1	6027573
M12 x 1			NC	PNP	Connector M12, 4-pin	IM12-06BPO-NC1	6027574
	40	Non fluid		PNP	Connector M12, 4-pin	IM12-10NPS-NC1	6027575
	10 mm	Non-flush	NO	NPN	Connector M12, 4-pin	IM12-10NNS-NC1	6027576

#### **IM18**

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
		NO	PNP	Connector M12, 4-pin	IM18-10BPS-NC1	6027577	
	10 mm	Flush	NO	NPN	Connector M12, 4-pin	IM18-10BNS-NC1	6027578
M18 x 1			NC	PNP	Connector M12, 4-pin	IM18-10BPO-NC1	6027579
	20 mm			PNP	Connector M12, 4-pin	IM18-20NPS-NC1	6027580
	20 mm Non-flush	เงงก-กินรก	NO	NPN	Connector M12, 4-pin	IM18-20NNS-NC1	6027581

### IM30

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
	20 mm	Flush	NO	PNP	Connector M12, 4-pin	IM30-20BPS-NC1	6027582
M30 x 1.5	20 111111	FluSii		NPN	Connector M12, 4-pin	IM30-20BNS-NC1	6027583
WISO X 1.5	40 mm	Non-flush	No	PNP	Connector M12, 4-pin	IM30-40NPS-NC1	6027584
	40 MM	Non-llush	NO	NPN	Connector M12, 4-pin	IM30-40NNS-NC1	6027585

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
		Mounting brooksts straight	Steel, zinc coated	M12	BEF-WG-M12	5321869
		Mounting brackets, straight	Stainless steel	M18	BEF-WG-M18N	5320948
40	Mounting brackets/plates		Steel, zinc coated	M12	BEF-WN-M12	5308447
40		Mounting brackets, 90°	Stainless steel	M18	BEF-WN-M18N	5320947



- Extremely watertight (IP 68/IP 69K) for wash down environments
- Stainless steel housing (316L/1.4404)
- Front cap made of PPS (FDA-certified material)
- Extended temperature range (-40 to +80 °C). Tolerates short-term temperature increases up to 100 °C
- Resistant to industrial cleaning agents, ECOLAB and JohnsonDiversey certified
- · Laser etched part number

### Your benefits

- · Reduced machine downtime
- Hygienic process due to FDA approved material and hygienic design
- Reduced maintenance costs due to sensor's resistance to aggressive cleaning cycles
- No restrictions on cleaning agents or processes, ensuring reliable operation

#### → www.mysick.com/en/IMF

For more information, just 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.



### **Ordering information**

Other models available at www.mysick.com/en/IMF

#### IMF12

Housing	Sensing range S <sub>n</sub>	Installation type	Electrical wiring	Output function	Output type	Connection	Model name	Part no.
			DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF12-02BPSVC0S	6035452
	2 mm Flush	Flush	DC 3-wife	NC	PNP	Connector M12, 4-pin	IMF12-02BPOVCOS	6035454
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF12-02BPPVC0S	6035215
		Flush	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF12-04BPSVC0S	6035460
				NC	PNP	Connector M12, 4-pin	IMF12-04BPOVCOS	6035462
M12 x 1	4 mm		DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF12-04BPPVCOS	6035219
IVITZ X I	4 111111		DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF12-04NPSVCOS	6035456
		Non-flush		NC	PNP	Connector M12, 4-pin	IMF12-04NPOVCOS	6035458
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF12-04NPPVCOS	6035217
			DC 2 wire	NO	PNP	Connector M12, 4-pin	IMF12-08NPSVC0S	6035464
	8 mm	Non-flush	DC 3-wire	NC	PNP	Connector M12, 4-pin	IMF12-08NPOVCOS	6035466
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF12-08NPPVC0S	6035221

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### IMF18

Housing	Sensing range S <sub>n</sub>	Installation type	Electrical wiring	Output function	Output type	Connection	Model name	Part no.
			DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF18-05BPSVC0S	6035468
	5 mm	Flush	DC 3-wile	NC	PNP	Connector M12, 4-pin	IMF18-05BPOVCOS	6035470
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF18-05BPPVCOS	6035223
		Flush mm Non-flush	DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF18-08BPSVC0S	6035476
				NC	PNP	Connector M12, 4-pin	IMF18-08BPOVCOS	6035478
M18 x 1	8 mm		DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF18-08BPPVCOS	6035227
INITOXI	0 111111		DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF18-08NPSVCOS	6035472
				NC	PNP	Connector M12, 4-pin	IMF18-08NPOVCOS	6035474
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF18-08NPPVCOS	6035225
			DC 3-wire	NO	PNP	Connector M12, 4-pin	IMF18-12NPSVCOS	6035480
	12 mm	Non-flush		NC	PNP	Connector M12, 4-pin	IMF18-12NPOVCOS	6035482
			DC 4-wire	Complementary	PNP	Connector M12, 4-pin	IMF18-12NPPVCOS	6035229

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
0	Mounting brackets/	Mounting plate etraight		M12	BEF-WG-M12N	5320950
		Mounting plate, straight	Stainless steel	M18	BEF-WG-M18N	5320948
40	plates			M12	BEF-WN-M12N	5320949
40		Mounting plate, 90°		M18	BEF-WN-M18N	5320947



- Analog output signal is proportional to distance
- Triple sensing distance
- Analog current and voltage signal in one sensor
- · High repeatability
- No blind zone

### Your benefits

- · High positioning accuracy
- High repeatability provides increased machine throughput, less wear and tear, and decreased downtime
- No blind zone increases machine throughput and efficiency
- Current and voltage output in one sensor requires less inventory of maintenance stock, reducing costs
- Minimal temperature drift provides operational consistency

#### → www.mysick.com/en/IMA

For more information, just 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.



### **Ordering information**

Other models available at www.mysick.com/en/IMA

### IMA08

Housing	g Detection range	Installation type	Repeat accuracy typ <sup>1) 2) 3)</sup>	Repeatability (T <sub>a</sub> constant)	Connection	Model name	Part no.
M8 x 1	0 mm 4 mm	Quasi-flush	0.3 mm	± 0.01 mm	Connector M12, 4-pin	IMA08-04BE3ZC0K	6041782

<sup>1)</sup> As per IEC 60947-5-2.

#### IMA12

Housing	Detection range	Installation type	Repeat accuracy typ <sup>1) 2) 3)</sup>	Repeatability (T <sub>a</sub> constant)	Connection	Model name	Part no.
M12 x 1	0 mm 6 mm	Quasi-flush	0.3 mm	± 0.01 mm	Connector M12, 4-pin	IMA12-06BE3ZC0K	6041792

<sup>1)</sup> As per IEC 60947-5-2.

<sup>&</sup>lt;sup>2)</sup> Ub = DC 20 V ... 30 V.

 $<sup>^{3)}</sup>$  TA = 23 °C ± 5 °C.

<sup>&</sup>lt;sup>2)</sup> Ub = DC 20 V ... 30 V.

 $<sup>^{3)}</sup>$  TA = 23 °C ± 5 °C.

### IMA18

Housing	Detection range	Installation type	Repeat accuracy typ <sup>1) 2) 3)</sup>	Repeatability (T <sub>a</sub> constant)	Connection	Model name	Part no.
M18 x 1	0 mm 10 mm	Quasi-flush	0.3 mm	± 0.02 mm	Connector M12, 4-pin	IMA18-10BE1ZCOK	6041793
INITS X T	0 mm 20 mm	Non-flush	0.3 mm	± 0.05 mm	Connector M12, 4-pin	IMA18-20NE1ZCOK	6041794

<sup>&</sup>lt;sup>1)</sup> As per IEC 60947-5-2.

### IMA30

Housing	Detection range	Installation type	Repeat accuracy typ <sup>1) 2) 3)</sup>	Repeatability (T <sub>a</sub> constant)	Connection	Model name	Part no.
M20 v 1 E	0 mm 20 mm	Quasi-flush	0.3 mm	± 0.05 mm	Connector M12, 4-pin	IMA30-20BE1ZC0K	6041795
M30 x 1.5	0 mm 40 mm	Non-flush	0.6 mm	± 0.1 mm	Connector M12, 4-pin	IMA30-40NE1ZCOK	6041796

<sup>&</sup>lt;sup>1)</sup> As per IEC 60947-5-2.

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
				M8	BEF-WN-M08	5321721
40	Mounting brackets/plates	Mounting bracket,	Steel, zinc coated	M12	BEF-WN-M12	5308447
		90°	Steer, zinc coated	M18	BEF-WN-M18	5308446
40				M30	BEF-WN-M30	5308445
		Terminal brackets		M8	BEF-KHF-M08	2051478
	Terminal and alignment brackets		Plastic (PA12), glass-fiber rein- forced	M12	BEF-KHF-M12	2051480
<b>65</b>				M18	BEF-KHF-M18	2051482

<sup>&</sup>lt;sup>2)</sup> Ub = DC 20 V ... 30 V.

 $<sup>^{3)}</sup>$  TA = 23 °C  $\pm$  5 °C.

 $<sup>^{2)}</sup>$  Ub = DC 20 V ... 30 V.

 $<sup>^{3)}</sup>$  TA = 23 °C ± 5 °C.



- · Long sensing distance
- Rugged metal and plastic housings
- Narrow design: 5 x 5 or 8 x 8 mm
- Compact, space-saving design

### **Your benefits**

- Trouble-free installation in spacecritical applications
- · Reliable detection of fast processes
- Quick installation without any fine adjustments
- Long sensing distance reduces mechanical damage
- Maintenance cost reduction due to increased sensor life
- High resistance to shock and vibrations

#### → www.mysick.com/en/IQ\_Miniature

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Ordering information

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### **IQ05**

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
			NO	PNP	Cable, 3-wire, 2 m, PUR	IQ05-0B8PS-ZU1	6020161
5 mm x 5 mm x 25 mm	0.8 mm	Flush	NO	NPN	Cable, 3-wire, 2 m, PUR	IQ05-0B8NS-ZU1	6020162
			NC	PNP	Cable, 3-wire, 2 m, PUR	IQ05-0B8P0-ZU1	6020163

**IQ Miniature** 

### IQ08

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
			NO	PNP	Connector M8, 3-pin	IQ08-02BPSKT0S	1055494
				PNP	Cable, 3-wire, 2 m, PVC	IQ08-02BPSKW2S	1055490
			NO	NPN	Connector M8, 3-pin	IQ08-02BNSKT0S	1055496
	2 mm	Flush		INFIN	Cable, 3-wire, 2 m, PVC	IQ08-02BNSKW2S	1055492
	2 111111	FluSii		PNP	Connector M8, 3-pin	IQ08-02BPOKTOS	1055495
			NC	PNP	Cable, 3-wire, 2 m, PVC	IQ08-02BP0KW2S	1055491
	n		NC	NPN	Connector M8, 3-pin	IQ08-02BNOKTOS	1055497
8 mm x 8 mm x 40 mm				INFIN	Cable, 3-wire, 2 m, PVC	IQ08-02BN0KW2S	1055493
6 HIII X 6 HIII X 40 HIII			NO	PNP	Connector M8, 3-pin	IQ08-04NPSKT0S	1055502
				PNP	Cable, 3-wire, 2 m, PVC	IQ08-04NPSKW2S	1055498
				NIDN	Connector M8, 3-pin	IQ08-04NNSKT0S	1055504
	4 mm	Non-flush		NPN	Cable, 3-wire, 2 m, PVC	IQ08-04NNSKW2S	1055500
	4 11111	Non-nusn		PNP	Connector M8, 3-pin	IQ08-04NPOKTOS	1055503
			NC	PNP	Cable, 3-wire, 2 m, PVC	IQ08-04NP0KW2S	1055499
			NC	NPN	Connector M8, 3-pin	IQ08-04NNOKTOS	1055505
				INFIN	Cable, 3-wire, 2 m, PVC	IQ08-04NNOKW2S	1055501



- Long sensing distance up to 60 mm
- DC, AC and AC/DC versions available
- Wide range of housing and mounting options
- Variety of connection options including terminal, cable (flying leads) and connector types
- Customer-specific models and value add options are available

### Your benefits

- Increased machine throughput with less machine downtime
- Maintenance cost reduction and reduced mechanical damage due to long sensing range
- Reduced maintenance cost due to longer service life
- Time-saving quick and easy installation

#### → www.mysick.com/en/IQ\_Standard

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### **Ordering information**

Other models available at www.mysick.com/en/IQ\_Standard

### IQ10

• Dimensions (W x H x D) in mm: 10 mm x 16 mm x 28 mm

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
			PNP	DC 3-wire	Connector M8, 3-pin	IQ10-03BPSKT0S	1055453
		NO	PINP	DC 3-wife	Cable, 3-wire, 2 m, PVC	IQ10-03BPSKW2S	1055447
3 mm	Flush	NO	NPN	DC 3-wire	Connector M8, 3-pin	IQ10-03BNSKT0S	1055455
			INFIN	DO 3-WIIC	Cable, 3-wire, 2 m, PVC	IQ10-03BNSKW2S	1055450
		Comple- mentary	PNP	DC 4-wire	Cable, 4-wire, 2 m, PVC	IQ10-03BPPKW2S	1055465
			PNP	DC 3-wire	Connector M8, 3-pin	IQ10-06NPSKT0S	1055461
6 mm	Non fluch	NO	PINP	DC 3-wife	Cable, 3-wire, 2 m, PVC	IQ10-06NPSKW2S	1055457
6 mm	Non-flush	NO	NPN	DC 2 wire	Connector M8, 3-pin	IQ10-06NNSKT0S	1055463
			INFIN	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ10-06NNSKW2S	1055459

### IQ12

• Dimensions (W x H x D) in mm: 12 mm x 26 mm x 40 mm

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
			PNP	DC 3-wire	Connector M8, 3-pin	IQ12-04BPSKT0S	1055432
	Flush	NO	PNP	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ12-04BPSKW2S	1055428
4 mm		NO Complementary	NPN	DC 3-wire	Connector M8, 3-pin	IQ12-04BNSKT0S	1055434
			IVIIV	DC 3-wile	Cable, 3-wire, 2 m, PVC	IQ12-04BNSKW2S	1055430
			PNP	DC 4-wire	Cable, 4-wire, 2 m, PVC	IQ12-04BPPKW2S	1055444
			DND	DO 2i	Connector M8, 3-pin	IQ12-08NPSKT0S	1055440
Q mm	Non-flush	NO	PNP	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ12-08NPSKW2S	1055436
8 mm	Non-liusn	NO	NDN	DC 2 wire	Connector M8, 3-pin	IQ12-08NNSKT0S	1055442
			NPN	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ12-08NNSKW2S	1055438

### IQ40, Short-body version

• Dimensions (W x H x D) in mm: 40 mm x 40 mm x 66 mm

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
20 mm	Flush	NO	PNP	DC 3-wire	Connector M12, 4-pin	IQ40-20BPSKC0K	6037070
20 111111	FluSII	Complementary	PNP	DC 4-wire	Connector M12, 4-pin	IQ40-20BPPKC0K	6037072
40 mm	Non-flush	NO	PNP	DC 3-wire	Connector M12, 4-pin	IQ40-40NPSKC0K	6037071
		Complementary	PNP	DC 4-wire	Connector M12, 4-pin	IQ40-40NPPKC0K	6037073

### IQ40, Standard version

• Dimensions (W x H x D) in mm: 40 mm x 40 mm x 118/121 mm

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
			-	DC 2-wire	Terminal connection with M20 gland	IQ40-15BDP-KK1	6025817
		NC or NO	PNP	DC 3-wire	Terminal connection with M20 gland	IQ40-15BPP-KK0	7900219
15 mm	Flush	INC OF INO	-	AC 2-wire	Terminal connection with M20 gland	IQ40-15BAP-KK1	6025816
			-	AC/DC 2-wire	Terminal connection with M20 gland	IQ40-15BUP-KK0	7902136
		Complementary	PNP	DC 4-wire	Cable gland	IQ40-15BPP-KK1	6025814
		NC or NO	PNP	DC 3-wire	Terminal connection with M20 gland	IQ40-20NPP-KK0	7900221
20 mm	Non-flush	NC or NO	-	AC/DC 2-wire	Terminal connection with M20 gland	IQ40-20NUP-KK0	7902137
		Complementary	PNP	DC 4-wire	Terminal connection with M20 gland	IQ40-20NPP-KK1	6025815

### IQ80

• Dimensions (W x H x D) in mm: 80 mm x 40 mm x 105/111 mm

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
50 mm	Flush, non- flush, overflush	Complementary	PNP	DC 4-wire	Connector M12, 4-pin	IQ80-50BPP-KC0	6026473
60 mm	Non-flush	NC or NO	PNP	DC 3-wire	Terminal connection with M20 gland	IQ80-60NPP-KK0	7900227
60 mm	Non-Hush	h NC or NO	PNP, NPN	AC/DC 2-wire	Terminal connection with M20 gland	IQ80-60NUP-KK0	7902138



- Flat, compact design
- Long sensing distance up to 7mm
- Easily visible indication LEDs

 Available in a plastic (IQ04 and IQ06) and metal housing (IQ20 and IQ25)

### **Your benefits**

- Reduced mechanical damage due to space-saving flat housing, which does not protrude from sensor
- Time-saving simple installation with one or two screws
- · No restrictions on machine design



→ www.mysick.com/en/IQ\_Flat

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### **Ordering information**

Other models available at www.mysick.com/en/IQ\_Flat

### IQ04

Housing	Sensing range S <sub>n</sub>	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
		NO	PNP	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ04-1B5PSKW2S	6042017
8 mm x 16 mm x	1.5 mm	NO	NPN	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ04-1B5NSKW2S	6042019
4 mm		NC	PNP	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ04-1B5P0KW2S	6042018
			NPN	DC 3-wire	Cable, 3-wire, 2 m, PVC	IQ04-1B5N0KW2S	6042020

#### IQ06

Housing	Sensing range S <sub>n</sub>	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
	NO	PNP	DC 3-wire	Cable, 3-wire, 2 m, PUR	IQ06-03BPSKU2S	6042022	
10 mm x 30 mm x	10 mm x 30 mm x	NO	NPN	DC 3-wire	Cable, 3-wire, 2 m, PUR	IQ06-03BNSKU2S	6042024
6 mm		NC	PNP	DC 3-wire	Cable, 3-wire, 2 m, PUR	IQ06-03BPOKU2S	6042023
		IVC	NPN	DC 3-wire	Cable, 3-wire, 2 m, PUR	IQ06-03BN0KU2S	6042025

### IQ20

Housing	Sensing range S <sub>n</sub>	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
		NO	PNP	DC 3-wire	Cable with plug, M8, 3-pin, 0.3 m, PUR	IQ20-07BPSDP0S	6042043
20 mm x 32 mm x 8 mm	7 mm		NPN	DC 3-wire	Cable with plug, M8, 3-pin, 0.3 m, PUR	IQ20-07BNSDP0S	6042044
O IIIIII		Complementary	PNP	DC 4-wire	Cable with plug, M12, 4-pin, 0.3 m, PUR	IQ20-07BPPDQ0S	6042045

### IQ25

Housing	Sensing range S <sub>n</sub>	Output function	Output type	Electrical wiring	Connection	Model name	Part no.
25 mm x 50 mm x	5 mm	NO	PNP	DC 3-wire	Cable, 3-wire, 2 m, PUR	IQ25-05BPSDU2S	6042046
10 mm	5 111111	Complementary	PNP	DC 4-wire	Cable, 4-wire, 2 m, PUR	IQ25-05BPPDU2S	6042047



- Small housing and light weight
- Housing diameters of 3 and 4 mm
- Integrated LED indicator
- Rugged IP 67- rated stainless steel housing
- Flexible connectivity via connecting cable or plug connection

### Your benefits

- Space-saving installation in spacecritical applications provides a high degree of design freedom
- Reliable detection of high-speed processes increases machine throughput
- High-visibility indicator LED ensures simple monitoring of the operational state
- · High positioning accuracy
- High resistance to shock and vibrations increases service life and reduces maintenance and replacement costs

#### → www.mysick.com/en/IH\_Miniature

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### **Ordering information**

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#### **IH03**

Diameter	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
			NO	PNP	Cable with plug, M8, 3-pin, with knurled screws, 0.2 m, PUR	IH03-0B6PS-VR1	6038602
3 mm	≤ 0.6 mm	0.6 mm Flush	NO		Cable, 3-wire, 2 m, PUR	IH03-0B6PS-VU1	6020141
				NPN	Cable, 3-wire, 2 m, PUR	IH03-0B6NS-VU1	6020142
			NC	PNP	Cable, 3-wire, 2 m, PUR	IH03-0B6P0-VU1	6020143

#### **IH04**

Diameter	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
					Connector M8, 3-pin	IH04-0B8PS-VT1	6020114
	4 mm ≤ 0.8 mm Flush	NO	PNP	Cable, 3-wire, 2 m, PVC	IH04-0B8PS-VW1	6020113	
4 mm				Cable with plug, M8, 3-pin, 2 m, PVC	IH04-0B8PS-VR1	6045178	
			NDN	Connector M8, 3-pin	IH04-0B8NS-VT1	6020152	
			NPN	Cable, 3-wire, 2 m, PVC	IH04-0B8NS-VW1	6020149	



- Operating distance up to 30 mm
- High switching frequencies up to 5 kHz
- DC and AC/DC versions available
- · Plastic and stainless steel housing
- Available in short and standard housing lengths

### **Your benefits**

- Reliable detection of high-speed processes increases machine throughput
- High-visibility indicator LED ensures simple monitoring of the operational state
- High resistance to shock and vibrations increases service life and reduces maintenance and replacement costs

#### → www.mysick.com/en/IH\_Standard

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**Ordering information** 

Other models available at www.mysick.com/en/IH\_Standard

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Housing	Connection	Model name	Part no.
			PNP	Short-body	Cable, 3-wire, 2 m, PVC	IH06-1B5PS-VWK	6020165
		NO	PNP	housing	Connector M8, 3-pin	IH06-1B5PS-VTK	6020169
1.5 mm	Flush	NO	NPN	Short-body	Cable, 3-wire, 2 m, PVC	IH06-1B5NS-VWK	6020166
1.5 11111	NC NC		INFIN	housing	Connector M8, 3-pin	IH06-1B5NS-VTK	6020170
		NC	PNP	Short-body	Cable, 3-wire, 2 m, PVC	IH06-1B5P0-VWK	6020167
		NO	FINE	housing	Connector M8, 3-pin	IH06-1B5P0-VTK	6020171
				Standard	Connector M8, 3-pin	IH06-02BPS-VT1	7900179
		NO	PNP	Standard	Cable, 3-wire, 2 m, PVC	IH06-02BPS-VW1	7900177
				Short-body	Connector M8, 3-pin	IH06-02BPS-VTK	6025877
				housing	Cable, 3-wire, 2 m, PVC	IH06-02BPS-VWK	6025874
		NO		Standard	Cable, 3-wire, 2 m, PVC	IH06-02BNS-VW1	7900178
2 mm	Flush		NPN	Standard	Connector M8, 3-pin	IH06-02BNS-VT1	7900180
			INFIN	Short-body	Connector M8, 3-pin	IH06-02BNS-VTK	6025878
			housing	Cable, 3-wire, 2 m, PVC	IH06-02BNS-VWK	6025875	
	NC P			Standard	Connector M8, 3-pin	IH06-02BP0-VT1	1016857
		PNP	Short-body housing	Connector M8, 3-pin	IH06-02BPO-VTK	6025879	

Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Housing	Connection	Model name	Part no.
				Ctondord	Connector M8, 3-pin	IH06-04NPS-VT1	7900183
			PNP	Standard	Cable, 3-wire, 2 m, PVC	IH06-04NPS-VW1	7900181
			PNP	Short-body	Connector M8, 3-pin	IH06-04NPS-VTK	6025882
		NO		housing	Cable, 3-wire, 2 m, PVC	IH06-04NPS-VWK	6025880
4 mm	Non-flush			Standard	Cable, 3-wire, 2 m, PVC	IH06-04NNS-VW1	7900182
			NPN	Short-body	Connector M8, 3-pin	IH06-04NNS-VTK	6025883
				housing	Cable, 3-wire, 2 m, PVC	IH06-04NNS-VWK	6025881
		NC	PNP	Short-body housing	Connector M8, 3-pin	IH06-04NPO-VTK	6025884

C-146 TOP PRODUCTS | SICK



- Cylindrical housing
- Detects powders, granulates, liquids and solids.
- Best-in-class electromagnetic compatibility
- 4-wire DC (CM18 and CM30) and 2-wire AC versions (CM30)
- Supply voltage: 10 ... 40 VDC (CM18 and CM30), 20 V... 250 VAC (CM30)
- Short-circuit reverse polarity and power-up pulse suppression protection
- LED status indicator
- IP 67 enclosure rating

#### **Your benefits**

- Durable housing withstands harsh industrial applications, reducing maintenance costs and downtime
- Quick and easy adjustment of the switching point saves installation and setup time
- · Application flexibility

- Solves applications where other sensing technologies cannot provide a solution
- High shock and vibration resistance increases sensor life and reduces maintenance costs
- Non-contact level measurement, even through container or tank walls, reduces installation and setup time



### → www.mysick.com/en/CM

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### **Ordering information**

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#### CM18

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
				PNP	Connector M12, 4-pin	CM18-08BPP-KC1	6020388
	3 mm 8 mm Flush	Eluoh	Complementary	PNP	Cable, 4-wire, 2 m, PVC	CM18-08BPP-KW1	6020136
		riusii	Complementary	NPN	Connector M12, 4-pin	CM18-08BNP-KC1	6021456
M18 x 1				INFIN	Cable, 4-wire, 2 m, PVC	CM18-08BNP-KW1	6021455
MITOXI				PNP	Connector M12, 4-pin	CM18-12NPP-KC1	6020410
	3 mm 12 mm N	Non fluch	Complementary	PNP	Cable, 4-wire, 2 m, PVC	CM18-12NPP-KW1	6020389
		Non-flush	Complementary	NIDNI	Connector M12, 4-pin	CM18-12NNP-KC1	6021458
				NPN	Cable, 4-wire, 2 m, PVC	CM18-12NNP-KW1	6021457

#### CM30

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
				PNP	Connector M12, 4-pin	CM30-16BPP-KC1	6020475
	2 mm 16 mm Flusi	Eluch	Complementary	PNP	Cable, 4-wire, 2 m, PVC	CM30-16BPP-KW1	6020473
		riusii	NPN Connector M12, 4-pin CM30-16BNP-KC1 Cable, 4-wire, 2 m, PVC CM30-16BNP-KW1	6021460			
M20 v 1 F				NPN	Cable, 4-wire, 2 m, PVC	CM30-16BNP-KW1	6021459
M30 x 1.5				PNP	Connector M12, 4-pin	CM30-25NPP-KC1	6020477
	4 mm 25 mm	Non-flush	Complementary	FINE	Cable, 4-wire, 2 m, PVC	CM30-25NPP-KW1	6020476
		NOH-HUSH	Complementary	NIDNI	Connector M12, 4-pin	CM30-25NNP-KC1	6021462
				NPN	Cable, 4-wire, 2 m, PVC	CM30-25NNP-KW1	6021461

### **Accessories**

	Accessory category	Accessory type	Connector type	Enclo- sure rating	Flying leads	Sheath material	Material	Cable length	Model name	Part no.
90		Mounting brackets, M18					Steel,		BEF-WN-M18	5308446
40	Mounting brackets/ plates	Mounting brackets, M30	_	-	_	-	coated	-	BEF-WN-M30	5308445
40		Mounting plates, M18	-	-	-	-	Stainless steel	-	BEF-WN-M18N	5320947
	Termi-						Plastic		BEF-KH-M18	2051481
<b>5</b>	nal and alignment brackets	Terminal brackets	-	-	-	-	(PA12), glass- fiber rein- forced	-	BEF-KHF-M18	2051482
								2 m	DOL-1204-G02M	6009382
	Plug connec-	Connector	Female	IP 67	Straight	PVC	-	5 m	DOL-1204-G05M	6009866
	tors and cables M12, 4-pin	connec- tor			PUR		2 m	DOL-1204-G02MC	6025900	
1		les W12, 4 pm		IP 68	Straight	halogen- free	-	5 m	DOL-1204-G05MC	6025901

C-148 TOP PRODUCTS | SICK



- · Rectangular housing
- Detects powders, granulates, liquids and solids.
- Best-in-class high electromagnetic compatibility
- Electrical design: DC 4-wire
- Supply voltage: CQ35 10 ... 40 VDC and CQ28 10...30 VDC
- Short-circuit, reverse polarity and power-up pulse suppression protection

#### **Your benefits**

- Non-contact level measurement, even through container or tank walls, which eliminates drilling holes and thus reduces installation time
- Durable housing withstands harsh industrial applications, reducing maintenance costs
- Quick and easy adjustment of the switching point - via pushbutton, remote teach for the CQ28 and via potentiometer for CQ35 - saves time
- Simple and save detection alternative to photoelectric and inductive sensors in applications such as detecting product in a sealed box, container or tank



#### → www.mysick.com/en/CQ

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### **Ordering information**

Other models available at www.mysick.com/en/CQ

### CQ28

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
28 mm x 46 mm x	1 mm 10 mm	Non-flush	NC or NO	PNP	Cable, 4-wire, 2 m, PVC	CQ28-10NPP-KW1	6030132
5.5 mm	1 111111 10 111111	NOH-HUSH	NC OF NO	NPN	Cable, 4-wire, 2 m, PVC	CQ28-10NNP-KW1	6030133

#### CQ35

Housing	Sensing range S <sub>n</sub>	Installation type	Output function	Output type	Connection	Model name	Part no.
35 mm x 15 mm x 69.5 mm	4 mm 25 mm	Non-flush	Comple- mentary	PNP NPN	Connector M12, 4-pin Connector M12, 4-pin	CQ35-25NPP-KC1 CQ35-25NNP-KC1	6020479 6021464
35 mm x 15 mm x 57.5 mm	4 mm 25 mm	Non-flush	Comple- mentary	PNP NPN	Cable, 4-wire, 2 m, PVC Cable, 4-wire, 2 m, PVC	CQ35-25NPP-KW1 CQ35-25NNP-KW1	6020478 6021463

	Connection type	Connector type	Enclosure rating	Flying leads	Sheath material	Cable length	Model name	Part no.
	Connector M12, 4-pin Female connector	IP 67 Straight	Ctroight	PVC	2 m	DOL-1204-G02M	6009382	
			Straight		5 m	DOL-1204-G05M	6009866	
		IP 68 S	Straight	DUD halogan from	2 m	DOL-1204-G02MC	6025900	
			11 00	Straight	PUR halogen-free	5 m	DOL-1204-G05MC	6025901



- Reliable detection of permanent magnets through non-ferromagnetic materials such as stainless steel, aluminum, plastic or wood
- Precise switching point and exact hysteresis
- · Reliable object detection in high temperature zones
- Small housing design with large operating distances
- Resistant to dust, dirt, and vibrations, increasing sensor life and reducing maintenance costs

#### Your benefits

- Non-contact operation eliminates interference from dirt, dust and vibrations, increasing sensor life and reducing maintenance costs
- Space-saving installation due to small design
- Large operating distances with reliable switching increase throughput
- Non-contact, universal detection through several substances, including plastic containers and pipes protective PTFE walls and nonmagnetic metal walls



#### www.mysick.com/en/MM

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### **Ordering information**

Other models available at www.mysick.com/en/MM

#### **MM08**

Housing	Sensing range $S_n^{-1)}$	Output function	Output type	Connection	Model name	Part no.
		NO	PNP	Connector M8, 3-pin	MM08-60APS-ZTK	1040067
MO v 4				Cable, 3-wire, 2 m, PUR/PVC	MM08-60APS-ZUK	1040027
M8 x 1 0 mm 60 mm	NO	NIDNI	Connector M8, 3-pin	MM08-60ANS-ZTK	1040068	
			NPN	Cable, 3-wire, 2 m, PUR/PVC	MM08-60ANS-ZUK	1040066

<sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)

#### MM12

Housing	Sensing range S <sub>n</sub> <sup>1)</sup>	Output function	Output type	Connection	Model name	Part no.
			PNP	Connector M12, 4-pin	MM12-60APS-ZCK	1040070
M12 x 1	0 mm 60 mm	NO	PINP	Cable, 3-wire, 2 m, PUR/PVC	MM12-60APS-ZUK	1040069
MIZXI UIIIII 60 IIIII	0 11111 60 11111	NO	NPN	Connector M12, 4-pin	MM12-60ANS-ZCK	1040071
				Cable, 3-wire, 2 m, PUR/PVC	MM12-60ANS-ZUK	1040026

<sup>&</sup>lt;sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)

### MM18

Housing	Sensing range S <sub>n</sub> <sup>1)</sup>	Output function	Output type	Connection	Model name	Part no.
			PNP	Connector M12, 4-pin	MM18-70APS-ZCK	1040072
	0 mm 70 mm	NO		Cable, 3-wire, 2 m, PUR/PVC	MM18-70APS-ZUK	1040029
M10 v 1				Connector M12, 4-pin	MM18-70ANS-ZCK	1040073
M18 x 1				Cable, 3-wire, 2 m, PUR/PVC	MM18-70ANS-ZUK	1040085
	5 mm 120 mm	NO	PNP	Connector M12, 4-pin	MM18-00APS-ZC0	1029861
				Cable, 3-wire, 2 m, PUR/PVC	MM18-00APS-ZU0	1029952

 $<sup>^{1)}\,\</sup>text{Sensing}$  range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
				M8	BEF-WG-M08	5321722
		Mounting brackets, straight	Steel, zinc coated	M12	BEF-WG-M12	5321869
	Mounting brackets/plates			M18	BEF-WG-M18	5321870
		Mounting brackets, 90°		M8	BEF-WN-M08	5321721
40				M12	BEF-WN-M12	5308447
90				M18	BEF-WN-M18	5308446
				M8	BEF-KH-M08	2051477
	Terminal and alignment brackets	Terminal brackets	Plastic (PA12), glass-fiber rein- forced	M12	BEF-KH-M12	2051479
<b>65</b>				M18	BEF-KH-M18	2051481



- Detection of permanent magnets through non-ferromagnetic materials, such as stainless steel, aluminum, plastic or wood
- NAMUR design for usage in hazardous explosive areas
- · Suitable for object detection in high temperature areas due to long sensing ranges
- Fits on to standard M12 and M18 installation

#### Your benefits

- NAMUR design ensures safe operation in highly explosive areas
- Non-contact operation ensures resistance to dirt, dust and vibration, increasing sensor life and reducing maintenance costs
- · Large operating distances ensure reliable switching, even with target position tolerances
- Non-contact, universal detection through several substances, including plastic containers and pipes and protective PTFE walls



www.mysick.com/en/MM\_Namur

For more information, just 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.



### **Ordering information**

Other models available at www.mysick.com/en/MM\_Namur

### MM12 NAMUR

Housing	Sensing range S <sub>n</sub> 1)	Output type	Connection	Model name	Part no.
M40 4	1 5 mm 60 mm	NAMUR	Connector M12, 4-pin	MM12-60A-N-ZC0	7900287
M12 x 1			Cable, 2-wire, 2 m, PVC	MM12-60A-N-ZW0	7900286

<sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)

### MM18 NAMUR

Housing	Sensing range S <sub>n</sub> <sup>1)</sup>	Output type	Connection	Model name	Part no.
M404	M18 x 1 5 mm 70 mm	NIAMALID	Connector M12, 4-pin	MM18-70A-N-ZC0	7900289
INTR X T		NAMUR	Cable, 2-wire, 2 m, PVC	MM18-70A-N-ZW0	7900288

 $<sup>^{1)}</sup>$  Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)

	Accessory category	Accessory type	Material	Thread size	Model name	Part no.
		Mounting brackets,	Steel, zinc coated	M12	BEF-WG-M12	5321869
	Mounting brackets/plates	straight		M18	BEF-WG-M18	5321870
40		Mounting brackets, 90°		M12	BEF-WN-M12	5308447
90				M18	BEF-WN-M18	5308446
	Terminal and alignment	Townsing I have also to	Plastic (PA12), glass-fiber reinforced	M12	BEF-KH-M12	2051479
65	brackets	Terminal brackets		M18	BEF-KH-M18	2051481



- Long sensing distance in a small, compact rectangular plastic housing with an IP 67 enclosure rating
- Detection of permanent magnets through non-ferromagnetic materials such as stainless steel, aluminum, plastic, or wood
- Solves high-temperature applications by installing the temperatureresistant magnet in the hightemperature area and the sensor behind an insulated area
- Non-contact operation that is resistant to dust, dirt, shock and vibration
- · Precise switching point and hysteresis
- Sensing distance up to 60 mm
- High switching frequency
- Short-circuit, reverse polarity protection and power-up pulse suppression

### Your benefits

- Non-contact operation eliminates interference from dirt, dust, shock and vibrations, reducing maintenance costs
- Long sensing distance with reliable switching reduces miscounts and increases machine throughput
- Easy to install, low-cost sensor solution saves installation time and costs
- Compact plastic housing saves machine space

#### → www.mysick.com/en/MQ

For more information, just 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.



### **Ordering information**

Other models available at www.mysick.com/en/MQ

Sensing range S <sub>n</sub> 1)	Output function	Output type	Connection	Model name	Part no.
5 mm 60 mm		PNP	Connector M8, 3-pin	MQ10-60APS-KT0	7900280
	NO		Cable, 3-wire, 2 m, PUR/PVC	MQ10-60APS-KU0	7900278
		NPN	Connector M8, 3-pin	MQ10-60ANS-KT0	7900281
			Cable, 3-wire, 2 m, PUR/PVC	MQ10-60ANS-KU0	7900279

<sup>&</sup>lt;sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0)

# With millimeter precision – cylinder sensors from SICK









### Magnetic cylinder sensors

Detecting, measuring, positioning, quality control – all crucial tasks in industrial automation. Machinery is becoming ever smaller, yet still offering unprecedented performance levels. Innovative cylinder sensors from SICK were developed for faster and more accurate detection of piston positions in compact pneumatic

cylinders. This results in broader fields of application for pneumatic cylinders plus new potential for machinery and production plants. And with our huge range of magnetic cylinder sensors to choose from, we can meet your every need. With features like ease of handling, the option of an analog output, optimum

switching characteristics, suitability for use in the food and beverage industry, support for the latest IO-Link technology, and universal mounting options with our comprehensive range of adapters, magnetic cylinder sensors from SICK are equipped for all installation locations and conditions.



# Magnetic cylinder sensors

	Selection guide magnetic cylinder sensors	 	
	MPA	100	MZ2Q-T
100	MPS	A STATE OF THE PARTY OF THE PAR	MZT6
Care	MZ2Q-C	A THE STATE OF THE	MZT6 ATEX
	MZC1	C. C.	MZT8171 MZT8 – compact, time- saving installation in T-slots
	RZC1	A STATE OF THE PARTY OF THE PAR	RZT6

## Selection guide magnetic cylinder sensors

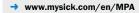
				M	agnetic cyl	inder sensc	ors			
	МРА	MPS	MZ2Q-C	MZC1	RZC1	MZ2Q-T	MZT6	MZT6 ATEX	MZT8	RZT6
For cylinder type										
C-slot										
T-slot				_						
With adapter to fit T-slot										
Round body cylinders										
Tie-rod cylinders										
Integrated profile cylinders										
Dovetail groove cylinders										
SMC rail cylinders CDQ2										
SMC rail cylinders ECDQ2										
Output										
PNP/NPN										
Reed										
Analog output U, I	•									
Special features										
1 sensor, 2 switching points										
IO-Link										
Special requirements										
Potentially explosive atmospheres								•		
Dodo	160	162	163	165	166	167	169	170	171	172
Page	100	162	163	165	100	107	168	1/0	171	1/2



- Measured lengths from 107 to 1007 mm in 36 mm steps
- Output signals 4 to 20 mA as well as 0 to 10 V in a single sensor
- Can be mounted on various cylinders thanks to its universal housing with adapters, e.g., cylinders with T-slot, round and tie rod cylinders
- Linearity of 0.5 mm at a sample rate of 1.15 ms
- Accuracy of 0.03 % as well as reproducibility of 0.06 %
- IP 67 enclosure rating

#### Your benefits

- High flexibility through measuring ranges from 107 to 1007 mm
- Increased machine performance thanks to the sensor's minimal blind zone
- Saves time due to configurable start and end points via intelligent Teach Pad
- A rugged aluminum housing, the capacitive Teach Pad and the anti-kink cable guarantees a long operational lifetime of the sensor and reduces maintenance costs
- Time savings through simple commissioning and diagnostics thanks to a 4-color LED display
- Analog power, voltage signal and IO-Link in a single sensor reduces the range of variants and thereby lowers warehousing costs



For more information, just 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.



## **Ordering information**

Other models available at www.mysick.com/en/MPA

- Cylinder types with adapter: T-slot, Roundbody cylinder, Tie rod cylinder
- Output function: analog, IO-Link

Measuring range ± 1 mm	Connection	Model name	Part no.
107 mm	Cable, 2 m, PUR	MPA-107TSTU0	1059443
143 mm		MPA-143TSTU0	1059445
179 mm		MPA-179TSTU0	1059447
215 mm		MPA-215TSTU0	1059449
251 mm		MPA-251TSTU0	1059451
287 mm		MPA-287TSTU0	1059453
323 mm		MPA-323TSTU0	1059455

Measuring range ± 1 mm	Connection	Model name	Part no.
107 mm		MPA-107TSTP0	1059442
143 mm		MPA-143TSTP0	1059444
179 mm		MPA-179TSTP0	1059446
215 mm		MPA-215TSTP0	1059448
251 mm		MPA-251TSTP0	1059450
287 mm		MPA-287TSTP0	1059452
323 mm		MPA-323TSTP0	1059454
359 mm		MPA-359TSTP0	1059456
395 mm		MPA-395TSTP0	1059458
431 mm		MPA-431TSTP0	1059460
467 mm		MPA-467TSTP0	1059462
539 mm		MPA-539TSTP0	1059466
575 mm	Cable with plug, M8, 4-pin, 300 mm, PUR	MPA-575TSTP0	1059467
503 mm	Cable with plug, wo, 4-pin, 500 mm, For	MPA-503TSTP0	1059464
611 mm		MPA-611TSTP0	1059468
647 mm		MPA-647TSTP0	1059469
683 mm		MPA-683TSTP0	1059470
719 mm		MPA-719TSTP0	1059471
791 mm		MPA-791TSTP0	1059473
755 mm		MPA-755TSTP0	1059472
827 mm		MPA-827TSTP0	1059474
863 mm		MPA-863TSTP0	1059475
899 mm		MPA-899TSTP0	1059476
935 mm		MPA-935TSTP0	1059477
971 mm		MPA-971TSTP0	1059478
1,007 mm		MPA-1007TSTP0	1059479

Accessory category	Accessory type	Dimensions (L x W x H)	Model name	Part no.
Brackets for cylinder	For profile cylinder/tie-rod cylinder	-	BEF-KHZPZ1MPA	2065578
sensors	For T-slot cylinders	-	BEF-KHZTO1MPA	2065575
Magnets	-	6.5 mm	MAG-2006-B	7901784



- Magnetic position sensor for pneumatic and hydraulic cylinders with T-slot
- Output signal: analog, 4 20 mA current and 0 -10 V (in one sensor)
- Superior precision: 0.05 mm resolution, 0.1 mm repeatability, 0.3 mm linearity, 1 ms measurement rate
- Electric setting of zero point and end point via teach-in button (optional)
- Various lengths available from 32 - 256 mm

#### Your benefits

- Maximum flexibility with several different measuring ranges from 32 to 256 mm
- Easy analog output setup: adjustable zero and end point can be taught via single button
- Drop-in T-slot mounting from above makes assembly easy
- Selectable installation direction to optimize cabling
- Efficient measurement of stroke due to minimal blind zones, increasing machine throughput
- Simple commissioning due to "inrange" indicator
- Output signal: analog, 4 20 mA current and 0 -10 V (in one sensor) reduces inventory cost by part number reduction

#### → www.mysick.com/en/MPS

For more information, just 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.



## Ordering information

Other models available at www.mysick.com/en/MPS

- Teach-in: ✓
- Cylinder types: T-slot
- Cylinder types with adapter: Roundbody cylinder, Dove-tail groove cylinder, SMC rail cylinder CDQ2 (C-Slot), SMC rail cylinder ECDQ2 (C-Slot)
- Output function: analog

Measuring range ± 1 mm	Connection	Model name	Part no.
20	Cable, 2 m, PUR	MPS-032TSTU0	1045667
32 mm	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-032TSTP0	1045666
64 mm	Cable, 2 m, PUR	MPS-064TSTU0	1045669
64 mm	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-064TSTP0	1045668
06	Cable, 2 m, PUR	MPS-096TSTU0	1045671
96 mm	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-096TSTP0	1045670
128 mm	Cable, 2 m, PUR	MPS-128TSTU0	1045673
128 mm	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-128TSTP0	1045672
400	Cable, 2 m, PUR	MPS-160TSTU0	1050740
160 mm	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-160TSTP0	1050685
400	Cable, 2 m, PUR	MPS-192TSTU0	1050738
192 mm	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-192TSTP0	1047728
224	Cable, 2 m, PUR	MPS-224TSTU0	1050741
224 mm	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-224TSTP0	1050686
250	Cable, 2 m, PUR	MPS-256TSTU0	1050739
256 mm	Cable with plug, M8, 4-pin, 300 mm, PUR	MPS-256TSTP0	1050551

D-162 TOP PRODUCTS | SICK



- Magnetic cylinder sensor for pneumatic and hydraulic cylinders with C-slot
- · Simple 2-point teach-in procedure
- Detection zone up to 50 mm stroke
- Drop-in mounting from above
- Sensor fully recessed in slot
- Two versions available for Festo and SMC C-slots

#### **Your benefits**

- One sensor with two programmable switching points reduces installation time
- Fewer mounting and cabling requirements – saves installation time, mounting space, and money
- Maximum flexibility: programmable detection zone up to 50 mm stroke
- Suitable for precise pneumatic applications due to simple and precise definition of two switching points



→ www.mysick.com/en/MZ2Q-C

For more information, just 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.



## **Ordering information**

Other models available at www.mysick.com/en/MZ2Q-C

- Cylinder types: C-slot
- Cylinder types with adapter: SMC rail cylinder CDQ2 (C-Slot), SMC rail cylinder ECDQ2 (C-Slot)
- Output type: PNP
- Output function: NO

For SMC cylinder	For Festo cylinder	IO-Link	Connection	Model name	Part no.
<b>∨</b> -			Cable, 4-wire, 2 m, PUR	MZ2Q-CSSPSKU0	1042237
			Cable with plug, M8, 4-pin, 0.3 m, PUR	MZ2Q-CSSPSKP0	1042238
	-	Cable with plug, M8, 4-pin, with knurled screws, 0.5 m, PUR	MZ2Q-CSSPSKR0	1042239	
		Cable with plug, M12, 4-pin, 0.3 m, PUR	MZ2Q-CSSPSKQ0	1042240	
		<b>~</b>	Cable with plug, M12, 4-pin, 0.3 m, PUR	MZ2Q-CSLPSKQ0	1043696
		-	Cable, 4-wire, 2 m, PUR	MZ2Q-CFSPSKU0	1042241
			Cable with plug, M8, 4-pin, 0.3 m, PUR	MZ2Q-CFSPSKP0	1042242
-	<b>v</b>		Cable with plug, M8, 4-pin, with knurled screws, 0.5 m, PUR	MZ2Q-CFSPSKR0	1042243
			Cable with plug, M12, 4-pin, 0.3 m, PUR	MZ2Q-CFSPSKQ0	1042244
		<b>✓</b>	Cable with plug, M12, 4-pin, 0.3 m, PUR	MZ2Q-CFLPSKQ0	1043697

	Accessory category	Accessory type	Material	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
		For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-130	5311506
員員				BEF-KHZ-RT1-25	5311171
				BEF-KHZ-RT1-63	5311172
		For cylinders with dovetail- slot	Aluminum	BEF-KHZ-ST1	2022703

D

D-164 TOP PRODUCTS | SICK



- Fits into all commonly used cylinders, linear slides and grippers with C-slots, such as, Festo or SMC
- Complete range with PNP/ NPN, PUR and PVC cable, M8 and M12 connector
- Combined Allen and flathead installation screw
- Very short sensor housing, making it easier to install on short stroke cylinders
- · Operating display LED
- IP 67 / IP 68 / IP 69K enclosure rating (depending on type)

#### Your benefits

- Reduced maintenance cost as the sensor keeps its position under shock and vibration and does not move out
- Increased machine throughput via SICK's proprietary GMR (giant magneto resistive) and ASIC (application specific integrated circuit) technology that ensures precise one-time switching while eliminating false signals
- Flexible installation via Allen wrench or flathead screwdriver
- Time saving single-hand mounting with ¼-turn installation.
- Convenient installation and sensor replacement due to drop-in installation

   installer does not need to disassemble the cylinder from the machine for sensor replacement.

#### → www.mysick.com/en/MZC1

For more information, just 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.



## **Ordering information**

Other models available at www.mysick.com/en/MZC1

- Cylinder types: C-slot
- Cylinder types with adapter: SMC rail cylinder CDQ2 (C-Slot), SMC rail cylinder ECDQ2 (C-Slot)
- Output function: NO

Overrun distance typ.	Output type	Enclosure rating	Connection	Model name	Part no.
			Cable with plug, M8, 3-pin, 0.3 m, PUR	MZC1-2V2PS-KP0	1059735
	PNP	IP 67, IP 68	Cable with plug, M8, 3-pin, with knurled screws, 0.3 m, PUR	MZC1-2V2PS-KR0	1059737
		ID 67 ID 69 ID 60K	Cable, 3-wire, 2 m, PUR	MZC1-2V2PS-KU0	1059738
4 mm		IP 67, IP 68, IP 69K	Cable, 3-wire, 5 m, PUR	MZC1-2V2PS-KUB	1059739
	NPN	NPN IP 67, IP 68 IP 67, IP 68, IP 69K	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZC1-2V2NS-KP0	1059744
			Cable with plug, M8, 3-pin, with knurled screws, 0.3 m, PUR	MZC1-2V2NS-KR0	1059742
			Cable, 3-wire, 2 m, PUR	MZC1-2V2NS-KU0	1059743
	PNP		Cable with plug, M8, 3-pin, 0.3 m, PUR	MZC1-4V3PS-KP0	1059752
7 mm		IP 67, IP 68	Cable with plug, M8, 3-pin, with knurled screws, 0.3 m, PUR	MZC1-4V3PS-KR0	1059753
		IP 67, IP 68, IP 69K	Cable, 3-wire, 2 m, PUR	MZC1-4V3PS-KU0	1059755
	NDN	IP 67, IP 68 IP 67, IP 68, IP 69K	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZC1-4V3NS-KP0	1059757
	NPN		Cable, 3-wire, 2 m, PUR	MZC1-4V3NS-KU0	1059756

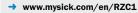




- Fits into all commonly used cylinders, linear slides and grippers with C-slots, such as, Festo or SMC
- Complete range with Reed 3-wire. Reed 2-wire, and Reed 120V version
- Combined Allen and flathead installation screw
- Very short sensor housing, making it easier to install on short stroke cylinders
- Operating display LED
- IP 67 / IP 68 / IP 69K enclosure rating (depending on type)

#### Your benefits

- Reduced maintenance cost as the sensor keeps its position under shock and vibration and does not move out
- Flexible installation via Allen wrench or flathead screwdriver
- Time saving single-hand mounting with ¼-turn installation
- Convenient installation and sensor replacement due to drop-in installation – installer does not need to disassemble the cylinder from the machine for sensor replacement



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## **Ordering information**

Other models available at www.mysick.com/en/RZC1

- Cylinder types: C-slot
- Cylinder types with adapter: SMC rail cylinder CDQ2 (C-Slot), SMC rail cylinder ECDQ2 (C-Slot)
- Switching output: Reed
- Output function: NO

Electrical wiring	Supply voltage	Enclosure rating	Connection	Model name	Part no.
AC/DC 3-wire	5 V AC/DC 30 V AC/DC	IP 67 <sup>1)</sup>	Cable with plug, M8, 3-pin, 0.3 m, PUR	RZC1-04ZRS-KP0	1059747
	, , , , , ,	IP 67, IP 68, IP 69K 1) 2)	Cable, 3-wire, 2 m, PUR	RZC1-04ZRS-KU0	1059746
AC/DC 2-wire	5 V AC/DC 30 V AC/DC	IP 67 <sup>1)</sup>	0.3 m, PUR	RZC1-04ZUS-KP0	1059751
	5 V AC/DC 120 V AC/DC	IP 67 <sup>1)</sup>	Cable, 2-wire, 2 m, PUR	RZC1-04ZUS-KU0	1059750

<sup>1)</sup> According to EN 60529 (IP67/IP68)

<sup>2)</sup> According to DIN 40050 (IP69K)





- Magnetic cylinder sensor for pneumatic and hydraulic cylinders with T-slot
- Simple 2-point teach-in procedure
- Detection zone up to 50 mm stroke
- Drop-in T-slot mounting from above makes assembly easy
- · Sensor fully recessed in slot
- For all commonly used cylinders with T-slots, e.g., Festo or SMC and it can be applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets

#### **Your benefits**

- One sensor with two adjustable switching points reduces installation time and cost
- Detection zone up to 50 mm stroke provides maximum application flexibility
- Ideal for precise pneumatic applications due to the definition of two switching points
- Drop-in T-slot mounting from above makes assembly easy



#### www.mysick.com/en/MZ2Q-T

For more information, just 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.



#### **Ordering information**

Other models available at www.mysick.com/en/MZ2Q-T

- Cylinder types: T-slot
- Cylinder types with adapter: Profile cylinder, Roundbody cylinder, SMC rail cylinder CDQ2 (T-Slot), SMC rail cylinder ECDQ2 (T-Slot), Tie rod cylinder, Dove-tail groove cylinder
- For Festo cylinder: Switching output: PNP

•	Switching output: PNF
•	Output function: NO

Connection	Model name	Part no.
Cable, 4-wire, 2 m, PUR	MZ2Q-FTZPS-KU0	1029845
Cable with plug, M8, 4-pin, with knurled screws, 0.5 m, PUR	MZ2Q-FTZPS-KR0	1041322
Cable with plug, M12, 4-pin, with knurled screws, 0.3 m, PUR	MZ2Q-FTZPS-KQ0	1041323

	Accessory category	Accessory type	Material	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
		For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-130	5311506
				BEF-KHZ-RT1-25	5311171
日	00110010			BEF-KHZ-RT1-63	5311172
		For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703



- Compact housing design
- Proprietary GMR-ASIC technology ensures precise switching and low hysteresis
- Enclosure rating: IP 68 / IP 69K
- Combined fixing screw
- LED function indicator
- · For all commonly used cylinders with T-slots, e.g., Festo or SMC and it can be applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets

#### Your benefits

- Best-in-class switching performance for precise piston position
- Highly resistant to shock and vibration enlarging sensor life time
- Drop-in T-slot mounting from above makes assembly easy
- Easy installation with Allen wrench or flat head screwdriver
- Resistant to leaks, ensuring reliability





www.mysick.com/en/MZT6

For more information, just 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.



#### **Ordering information**

Other models available at www.mysick.com/en/MZT6

- Cylinder types: T-slot
- Cylinder types with adapter: Profile cylinder, Roundbody cylinder, SMC rail cylinder CDQ2 (T-Slot), SMC rail cylinder ECDQ2 (T-Slot), Tie rod cylinder, Dove-tail groove cylinder
- Overrun distance typ.: 3 mm
- Magnetic field sensitivity, min.: 2.6 mT

Output function	Switching output	Enclosure rating	Connection	Model name	Part no.
	PNP	IP 68, IP 69K <sup>1)</sup>	Cable, 3-wire, 2 m, PUR	MZT6-03VPS-KU0	1043369
			Cable, 3-wire, 5 m, PVC	MZT6-03VPS-KWB	1025809
		IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT6-03VPS-KP0	1023971
NO			Cable with plug, M8, 3-pin, with knurled screws, 0.5 m, PUR	MZT6-03VPS-KR0	1023972
			Cable with plug, M12, 3-pin, 0.3 m, PUR	MZT6-03VPS-KQ0	1025550
	NPN	IP 68, IP 69K 1)	Cable, 3-wire, 2 m, PVC	MZT6-03VNS-KW0	1029401
		IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT6-03VNS-KP0	1029402
NC	PNP	IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT6-03VP0-KP0	1028741

<sup>1)</sup> According to EN40050.

	Accessory category	Accessory type	Material	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
		For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-130	5311506
				BEF-KHZ-RT1-25	5311171
	30113013			BEF-KHZ-RT1-63	5311172
		For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703





- ATEX 3D/ 3G and ATEX 3G
- Compact housing design
- Proprietary GMR-ASIC technology ensures precise switching and low hysteresis
- Enclosure rating: IP 68 / IP 69K
- · Combined fixing screw

- LED function indicator
- For all commonly used cylinders with T-slots, e.g., Festo or SMC and it can be applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets

#### Your benefits

- Best-in-class switching performance for precise piston position
- Highly resistant to shock and vibration enlarging sensor life time
- Drop-in T-slot mounting from above makes assembly easy
- Easy installation with Allen wrench or flat head screwdriver
- · Resistant to leaks, ensuring reliability



For more information, just 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.



#### **Ordering information**

Other models available at www.mysick.com/en/MZT6\_ATEX

- Cylinder types: T-slot
- Cylinder types with adapter: Profile cylinder, Roundbody cylinder, SMC rail cylinder CDQ2 (T-Slot), SMC rail cylinder ECDQ2 (T-Slot), Tie rod cylinder, Dove-tail groove cylinder
- Output function: NO
- Overrun distance typ.: 3 mm
- Switching output: PNP

Hazardous area category	Enclosure rating	Connection	Model name	Part no.
3G, 3D	IP 68, IP 69K <sup>1)</sup>	Cable, 3-wire, 2 m, PVC	MZT6-03VPS-KWX	1025827
	IP 68	Cable with plug, M12, 3-pin, 0.3 m, PVC	MZT6-03VPS-KQX	1029161
3G	IP 68	Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT6-03VPS-KPX	1028629

<sup>1)</sup> According to EN40050.

#### **Accessories**

	Accessory category	Accessory type	Material	Model name	Part no.
	Brackets for cylinder sensors	For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
		For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-130	5311506
				BEF-KHZ-RT1-25	5311171
	001.0010			BEF-KHZ-RT1-63	5311172
		For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703

D-170 TOP PRODUCTS | SICK





- Magnetic piston detection for all conventional pneumatic cylinders with T-slots
- Short sensor housing length only 24 mm
- Sensor element at the tip of the housing
- Proprietary GMR-ASIC technology ensures precise switching and low hysteresis
- Enclosure rating: IP 68 / IP 69K (PUR) respectively IP 67 / IP 69K (PVC)
- · Captive screw
- · LED function indicator
- For all commonly used cylinders with T-slots, e.g., Festo or SMC and it can be applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets

#### Your benefits

- Shortest sensor on the market, making it ideal for short stroke cylinders
- Sensor element at the tip of the sensor – piston detection possible without stroke loss
- Captive installation screw enables reliable and optimized installation
- Time saving "single-handed mounting" with 1/4 turn
- Flexible installation via Allen wrench or flathead screwdriver
- Extremely rugged housing rated for IP67 respectively IP 68 and IP 69K, enlarging sensor life time



For more information, just 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.



#### **Ordering information**

Other models available at www.mysick.com/en/MZT8

- Cylinder types: T-slot
- Cylinder types with adapter: Profile cylinder, Roundbody cylinder, SMC rail cylinder CDQ2 (T-Slot), SMC rail cylinder ECDQ2 (T-Slot), Tie rod cylinder, Dove-tail groove cylinder
- Output function: NO

Overrun distance typ.	Magnetic field sensitivity, min.	Switching output	Connection	Model name	Part no.
		PNP	Cable, 3-wire, 2 m, PUR	MZT8-03VPS-KU0	1044469
			Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT8-03VPS-KP0	1044458
3 mm	2.6 mT		Cable with plug, M8, 3-pin, with knurled screws, 0.5 m, PUR	MZT8-03VPS-KR0	1044459
			Cable with plug, M12, 3-pin, 0.3 m, PUR	MZT8-03VPS-KQ0	1044460
		NPN	Cable, 3-wire, 2 m, PUR	MZT8-03VNS-KU0	1044934
			Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT8-03VNS-KP0	1044932
	2.8 mT	PNP	Cable, 3-wire, 2 m, PUR	MZT8-28VPS-KU0	1048049
			Cable with plug, M8, 3-pin, 0.3 m, PUR	MZT8-28VPS-KP0	1048048
9 mm			Cable with plug, M8, 3-pin, with knurled screws, 0.5 m, PUR	MZT8-28VPS-KR0	1048050
			Cable with plug, M12, 3-pin, 0.3 m, PUR	MZT8-28VPS-KQ0	1048051

	Accessory category	Accessory type	Material	Model name	Part no.
		For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
		For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-130	5311506
	Brackets for cylinder sensors			BEF-KHZ-RT1-25	5311171
	SCHSOIS			BEF-KHZ-RT1-63	5311172
		For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703

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D-172 TOP PRODUCTS | SICK



- Compact housing design
- Enclosure rating: IP 68 / IP 69K
- Combined Allen and flathead fixing screw
- · LED function indicator

 For all commonly used cylinders with T-slots, e.g., Festo or SMC and it can be applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets

#### **Your benefits**

- High resistance to shock, vibration and liquids
- Drop-in T-slot mounting from above makes assembly easy
- Easy installation with Allen wrench or flat head screwdriver





#### → www.mysick.com/en/RZT6

For more information, just 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.



#### **Ordering information**

Other models available at www.mysick.com/en/RZT6

- Cylinder types: T-slot
- Cylinder types with adapter: Profile cylinder, Roundbody cylinder, SMC rail cylinder CDQ2 (T-Slot), SMC rail cylinder ECDQ2 (T-Slot), Tie rod cylinder, Dove-tail groove cylinder
- Switching output: Reed

Electrical wiring	Connection	Model name	Part no.
AC/DC 2-wire	Cable, 2-wire, 2 m, PVC	RZT6-03ZUS-KW0	1025522
AC/DC 3-wire	Cable, 3-wire, 2 m, PVC	RZT6-03ZRS-KW0	1023974
	Cable with plug, M8, 3-pin, 0.3 m, PUR	RZT6-03ZRS-KP0	1023973
	Cable with plug, M8, 3-pin, with knurled screws, 0.5 m, PUR $$	RZT6-03ZRS-KR0	1023975
	Cable with plug, M12, 3-pin, 0.3 m, PUR	RZT6-03ZRS-KQ0	1025549

	Accessory category	Accessory type	Material	Model name	Part no.
		For profile cylinder/tie-rod cylinder	Zinc diecast	BEF-KHZ-PT1	2022702
<b>#</b>	Brackets for cylinder	For round body cylinders	Plastic, nickel silver	BEF-KHZ-RT1-25	5311171
	sensors			BEF-KHZ-RT1-63	5311172
		For cylinders with dovetail-slot	Aluminum	BEF-KHZ-ST1	2022703