



Magnetic proximity sensors  
Magnetic proximity sensors, MM18

MM18-70ANS-ZCK



**Model Name** > [MM18-70ANS-ZCK](#)  
**Part No.** > [1040073](#)



#### At a glance

- Detection of magnets
- Operating distances up to 70 mm; Advanced series up to 120 mm or more based on the magnet strength
- Short-circuit, reverse polarity and power-up pulse suppression protection
- Robust nickel-plated brass housing with fine thread M18 x 1 mm
- IP 67 enclosure rating
- PNP or NPN output
- High switching frequency
- LED status indicator

#### 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 non-magnetic metal walls

#### Features

Sensing range Sn:	5 mm ... 70 mm <sup>1)</sup>
Switching frequency:	1,000 Hz
Connection type:	Connector M12, 4-pin
Switching output:	NPN
Output function:	NO
Electrical wiring:	DC 3-wire
Enclosure rating:	IP 67 <sup>2)</sup>
Housing:	Cylindrical
Housing:	Short-body housing

<sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0) <sup>2)</sup> According to EN60529

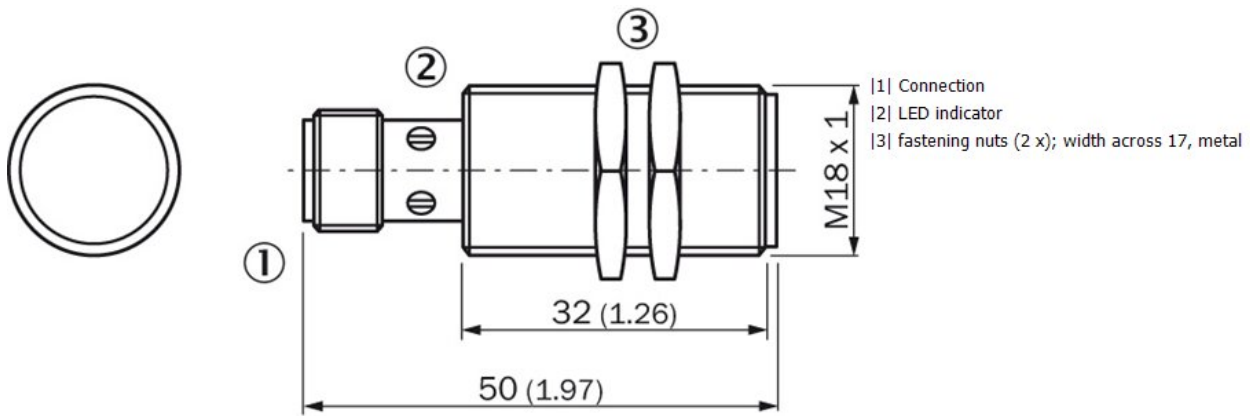
#### Mechanics/electronics

Thread size:	M18 x 1
Housing length:	50 mm
Supply voltage:	10 V DC ... 30 V DC
Residual ripple:	≤ 10 % <sup>1)</sup>
Power consumption:	≤ 10 mA <sup>2)</sup>
Voltage drop:	≤ 2 V <sup>3)</sup>

Output current $I_a$ :	$\leq 200$ mA
Hysteresis:	1 % ... 10 %
Repeatability:	$\leq 1$ % <sup>4)</sup>
Temperature drift (% of Sr):	$\pm 10$ %
EMC:	According to EN 60947-5-2
Tightening torque, max.:	40 Nm
Reverse polarity protection:	✓
Short-circuit protection <sup>5)</sup> :	✓
Housing material:	Metal, Nickel-plated brass
Special design:	Short version
Power-up pulse protection:	✓
Time delay before availability:	$\leq 20$ ms
Ambient operating temperature:	-25 °C ... 75 °C
Shock/vibration:	30 g, 11 ms/10 ... 55 Hz, 1 mm

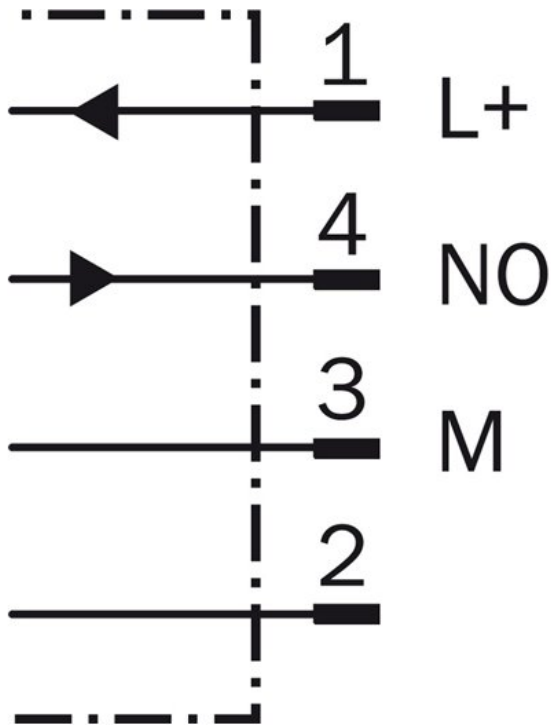
1) Of  $V_S$  2) Without load 3) At  $I_a$  max 4) Von Sr (VS und Ta constant) 5) Pulsed

### Dimensional drawing



All dimensions in mm (inch)

Connection diagram



Connection type



Operating distance

①	0	60	85		
②	0	60	85		
③	0	55	70		
④	0	32	38		
⑤	0	17	25		
⑥	0	20	24		
	0	30	60	90	120
		(1.18)	(2.36)	(3.54)	(4.72)
		Distance in mm (inch)			

Max. operating distance  
 S<sub>0</sub>, flush installation,  
 magnetizable material  
 (e.g. iron)

Max. operating distance  
 S<sub>0</sub>, flush or non-flush  
 installation,  
 non-magnetizable  
 material

Magnet type

- ① MAG-3315-B (M 5.1)
- ② MAG-3015-B (M 5.0)
- ③ MAG-3010-B (M 4.0)
- ④ MAG-2006-B (M 3.0)
- ⑤ MAG-0625-A (M 2.0)
- ⑥ MAG-1003-S (M 1.0)

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