



# MM18-70APS-ZUK

MME

MAGNETIC SENSORS

**SICK**  
Sensor Intelligence.



Ordering information

Type	Part no.
MM18-70APS-ZUK	1040029

Included in delivery: BEF-MU-M18 (1)  
Other models and accessories → [www.sick.com/MME](http://www.sick.com/MME)

Illustration may differ



Detailed technical data

Features

Housing	Metric
Housing	Short-body
Thread size	M18 x 1
Diameter	Ø 18 mm
Sensing range $S_n$	0 mm ... 70 mm <sup>1)</sup>
Safe sensing range $S_a$	56.7 mm
Magnetic sensitivity	0.7 mT
Switching frequency	5,000 Hz
Connection type	Cable, 3-wire, 2 m
Switching output	PNP
Switching output detail	PNP
Output function	NO
Electrical wiring	DC 3-wire
Magnetic alignment	Axial
Enclosure rating	IP67 <sup>2)</sup>
Items supplied	Mounting nut, brass, nickel-plated (2x)

<sup>1)</sup> Sensing range based on installation in non-magnetic material using Magnet MAG-3010-B (M4.0).  
<sup>2)</sup> According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 % <sup>1)</sup>
Voltage drop	≤ 2 V <sup>2)</sup>

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

<b>Current consumption</b>	10 mA <sup>3)</sup>
<b>Time delay before availability</b>	≤ 20 ms
<b>Hysteresis</b>	1 % ... 10 %
<b>Reproducibility</b>	≤ 1 % <sup>4)</sup>
<b>Temperature drift (of S<sub>r</sub>)</b>	± 10 %
<b>EMC</b>	According to EN 60947-5-2
<b>Continuous current I<sub>a</sub></b>	≤ 200 mA
<b>Cable material</b>	PUR
<b>Reverse polarity protection</b>	Yes
<b>Short-circuit protection</b>	Yes <sup>5)</sup>
<b>Power-up pulse protection</b>	✓
<b>Shock and vibration resistance</b>	30 g, 11 ms / 10 ... 55 Hz, 1 mm
<b>Ambient operating temperature</b>	-25 °C ... +75 °C
<b>Housing material</b>	Metal, Nickel-plated brass
<b>Housing length</b>	48 mm
<b>Thread length</b>	32 mm
<b>Tightening torque, max.</b>	40 Nm

<sup>1)</sup> Of V<sub>S</sub>.

<sup>2)</sup> At I<sub>a</sub> max.

<sup>3)</sup> Without load.

<sup>4)</sup> Von Sr (VS und Ta constant).

<sup>5)</sup> Pulsed.

#### Safety-related parameters

<b>MTTF<sub>D</sub></b>	1,980 years
<b>DC<sub>avg</sub></b>	0%
<b>T<sub>M</sub> (mission time)</b>	20 years

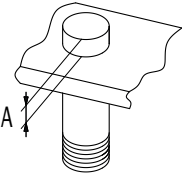
#### Classifications

<b>ECLASS 5.0</b>	27270104
<b>ECLASS 5.1.4</b>	27270104
<b>ECLASS 6.0</b>	27270104
<b>ECLASS 6.2</b>	27270104
<b>ECLASS 7.0</b>	27270104
<b>ECLASS 8.0</b>	27270104
<b>ECLASS 8.1</b>	27270104
<b>ECLASS 9.0</b>	27270104
<b>ECLASS 10.0</b>	27270104
<b>ECLASS 11.0</b>	27270104
<b>ECLASS 12.0</b>	27274301
<b>ETIM 5.0</b>	EC002544
<b>ETIM 6.0</b>	EC002544
<b>ETIM 7.0</b>	EC002544


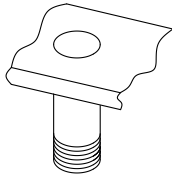
ETIM 8.0	EC002544
UNSPSC 16.0901	39122230

Installation note

installation in  
magnetizable material



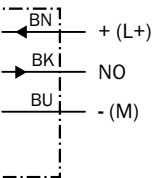
installation in  
non-magnetizable material



Ø	A (mm)	M (Nm)
M18	15	< 40

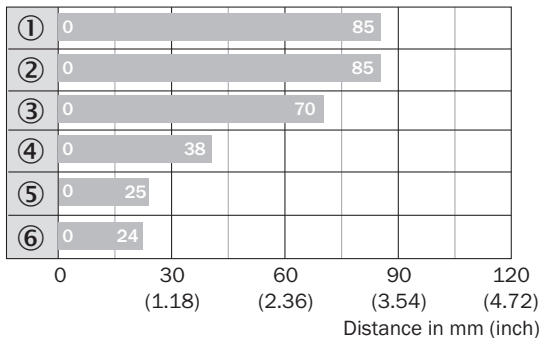
Connection diagram

Cd-001



Sensing range diagram

Sensing range

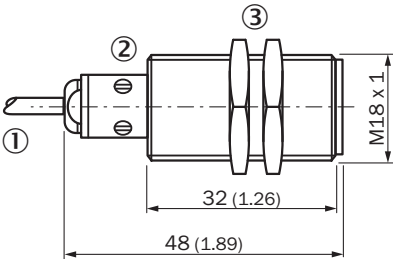


■ Max. sensing range  $S_n$ , flush or non-flush installation, non-magnetizable material

Magnet type	Part no.
① MAG-3315-B (M 5.1)	7902086
② MAG-3015-B (M 5.0)	7901786
③ MAG-3010-B (M 4.0)	7901785
④ MAG-2006-B (M 3.0)	7901784
⑤ MAG-0625-A (M 2.0)	7901783
⑥ MAG-1003-S (M 1.0)	7901782

Dimensional drawing (Dimensions in mm (inch))




MM18, cable, short-body housing



- ① Connection
- ② Display LED
- ③ Fastening nuts (2x); width across 17, metal

Recommended accessories

Other models and accessories → [www.sick.com/MME](http://www.sick.com/MME)

	Brief description	Type	Part no.
Mounting brackets and plates			
	<ul style="list-style-type: none"><li>• <b>Description:</b> Mounting plate for M18 sensors</li><li>• <b>Material:</b> Steel</li><li>• <b>Details:</b> Steel, zinc coated</li><li>• <b>Items supplied:</b> Without mounting hardware</li><li>• <b>Suitable for:</b> GR18, V180-2, V18, W15, Z1, Z2</li></ul>	BEF-WG-M18	5321870
	<ul style="list-style-type: none"><li>• <b>Description:</b> Mounting bracket for M18 sensors</li><li>• <b>Material:</b> Steel</li><li>• <b>Details:</b> Steel, zinc coated</li><li>• <b>Items supplied:</b> Without mounting hardware</li><li>• <b>Suitable for:</b> GR18, V180-2, V18, W15, Z1, Z2</li></ul>	BEF-WN-M18	5308446
Terminal and alignment brackets			
	<ul style="list-style-type: none"><li>• <b>Description:</b> Clamping block for round sensors M18, without fixed stop</li><li>• <b>Material:</b> Plastic</li><li>• <b>Details:</b> Plastic (PA12), glass-fiber reinforced</li><li>• <b>Items supplied:</b> Mounting hardware included</li><li>• <b>Suitable for:</b> GR18, MH15V, V180-2, V18</li></ul>	BEF-KH-M18	2051481
	<ul style="list-style-type: none"><li>• <b>Description:</b> Clamping block for round sensors M18, with fixed stop</li><li>• <b>Material:</b> Plastic</li><li>• <b>Details:</b> Plastic (PA12), glass-fiber reinforced</li><li>• <b>Items supplied:</b> Mounting hardware included</li><li>• <b>Suitable for:</b> GR18, MH15V, V180-2, V18</li></ul>	BEF-KHF-M18	2051482

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. 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 a wide range of 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 complete 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:

Contacts and other locations –[www.sick.com](http://www.sick.com)