



Model Number

MB-F32-A2-5M

Features

- For hydraulic cylinder
- Zero-contact detection of piston position
- No holes are required in the cylinder
- Freely positionable
- Simple, protected attachment

Technical Data

General specifications

Switching element function	PNP	NO/NC
Rated operating distance	s_n	
Installation	on the cylinder	
Output polarity	DC	
Switching range	s_b	typ. 50 mm

Nominal ratings

Operating voltage	U_B	10 ... 30 V
Reverse polarity protection	reverse polarity protected	
Short-circuit protection	pulsing	
Voltage drop	U_d	≤ 1.5 V
Operating current	I_L	0 ... 100 mA
No-load supply current	I_0	≤ 30 mA
Switching state indicator	LED, red (output 1); LED, yellow (output 2)	

Ambient conditions

Ambient temperature	-25 ... 85 °C (-13 ... 185 °F)	
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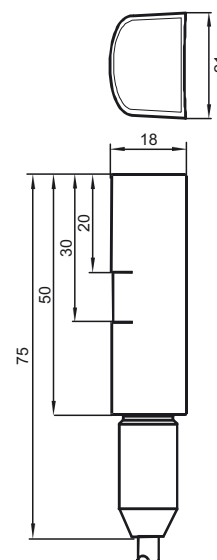
Mechanical specifications

Connection type	cable PVC, 5 m	
Core cross-section	0.5 mm ²	
Housing material	Polyamide (PA)	
Sensing face	Polyamide (PA)	
Degree of protection	IP67	

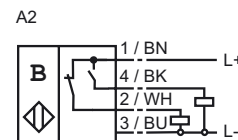
Compliance with standards and directives

Standard conformity		
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007	

Dimensions

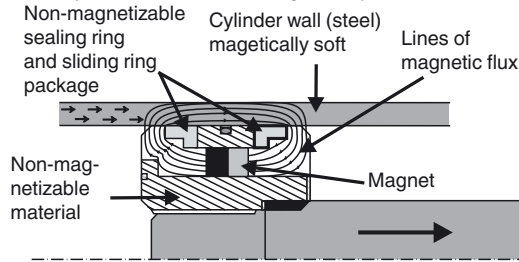


Electrical Connection



Magnetic System

Primary Construction of the Magnetic System



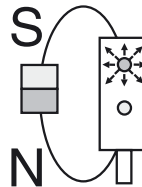
For this sensor principle it is not sufficient to simply mount the permanent magnet onto the piston. A magnetic system has to be constructed which conducts the magnetic flux of the permanent magnets directly into the cylinder wall in order to achieve the strongest possible magnetization. For further details regarding the construction of magnetic systems, refer to the manual. A field trial is generally recommended before practical operation!

Magnets

The magnets are axially magnetized. It must be ensured that all magnets are mounted with the same polarity!

Definition of polarity

An approaching permanent magnet with the north pole pointing towards the cable connection of the sensor causes output 1 to respond and the red LED to light.



Antivalent output

By means of the sensor's antivalent output stage the appropriate output can be chosen depending on the polarity of the magnetic system or the mounting location of the sensor

Mounting

The sensor is mounted directly on the surface towards the cylinder axis. For this purpose, pressure bands, tightening straps, or hose band clamps can be used.