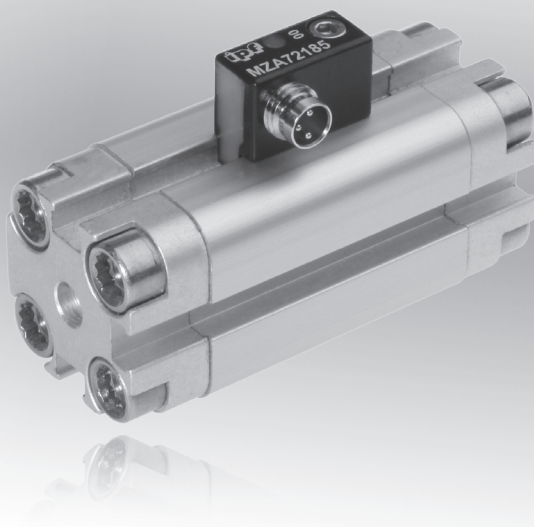


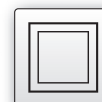
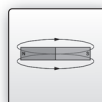
dimensions **9.2 x 16.5 x 20mm**

T-groove cylinder sensor surface **middle range**  
underneath the connector



- ✓ fully electronic microsensor
- ✓ robust zinc diecast housing (vibration resistance)
- ✓ high locking power
- ✓ quick mounting
- ✓ very short design with built-in amplifier
- ✓ LED-display (except +100°C version)
- ✓ connection with M8-connector

**mounting from above**  
**new fixing system**



### description

On automatic machines the requirement often arises for a switch signal to be obtained for certain piston positions of a pneumatic cylinder. For this, magnetic cylinder sensors are used.

The pistons of the pneumatic cylinders are provided with a ring magnet. The magnetic field penetrates non-magnetizable materials. As such, the position of the piston can be queried through the cylinder wall.

For decades, magnetic cylinder sensors from **ipf electronic** have been characterized by outstanding reliability and robustness.

The new devices in the **MZA7** series tie in with this tradition. The housing is made of die cast zinc, the electronics work contact free and as such, they are free from wear and tear. The compound ensures the necessary seal and protects the circuit board from possible shocks.

A new fastening mechanism ensures easy assembly (can be inserted from above) and at the same time, a secure hold.

3 different devices are available:

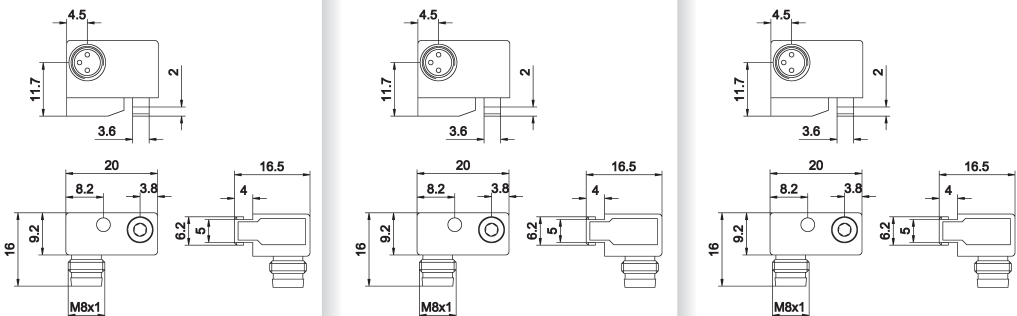
The **MZA70175** is suitable for standard applications. Devices **MZ070175** and **MZ070173** that have been used up until now, can be replaced by this device.

The **MZA70155** has been designed for increased environmental temperatures (up to +100°C). The **MZA72185** has a very short overrun.

The devices can be used in all cylinders made by leading manufacturers and they are directly exchangeable with reed switches (in three conductor cable technology). In order to keep the same position when exchanging a cylinder sensor, the positive stop **AM000076** is offered as an accessory.

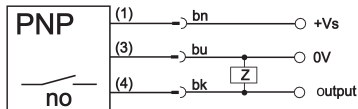
### application examples

- ▶ position recognition of a cylinder piston
- ▶ limit of travel enquiry

article-no.	MZA70175	MZA70155	MZA72185
operating temperature	-20 ... +70°C	-20 ... +100°C	-20 ... +70°C
version	standard	extended temperature range	short travel path
active sensor surface	middle area	middle area	underneath the connector
			
TECHNICAL DATA			
active sensor surface	middle area	middle area	underneath the connector
output signal	pnp, no	pnp, no	pnp, no
operating voltage	10 ... 30V DC	10 ... 30V DC	10 ... 30V DC
current consumption (w/o load)	≤ 10mA	≤ 10mA	≤ 10mA
output current (max. load)	150mA	150mA	150mA
voltage drop (max. load)	2.0V DC	2.0V DC	2.0V DC
hysteresis	typical 1mm	typical 1mm	typical 1mm
repeatability	± 0.1mm	± 0.1mm	± 0.1mm
sampling frequency	5kHz	5kHz	5kHz
display (signal)	yellow LED	-	yellow LED
short-circuit protection	+	+	-
reverse polarity protection	+	+	+
housing material	zinc diecast	zinc diecast	zinc diecast
dimensions	9.2x16.5x20mm	9.2x16.5x20mm	9.2x16.5x20mm
operating temperature	-25 ... +70°C	-25 ... +100°C	-25 ... +70°C
system of protection (EN 60529)	IP67	IP67	IP67
connection	M8-connector, 3-pin	M8-connector, 3-pin	M8-connector, 3-pin
connection accessories	e.g. <b>VK200075</b>	e.g. <b>VK200075</b>	e.g. <b>VK200075</b>
mounting accessories	positive stop <b>AM000076</b> cable clip <b>AM000087</b>	positive stop <b>AM000076</b> cable clip <b>AM000087</b>	positive stop <b>AM000076</b> cable clip <b>AM000087</b>

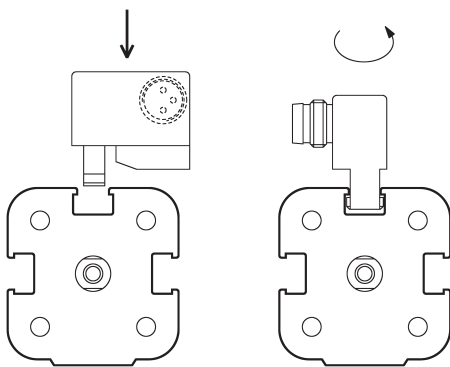
### connection

connector device

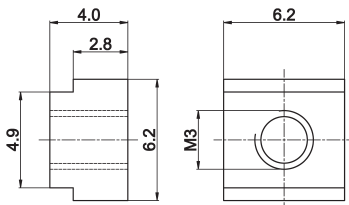


**wire colors:** bn = brown (1), bu = blue (3), bk = black (4)

### mounting



### positive stop with clamp fastening AM000076



### ACCESSORIES

article-no.	description	material
AM000076	positive stop for T-groove	zinc
AM000087	cable clip for T-groove	plastic

This data sheet contains the standard versions only. Kindly request the availability of other output- and connection functions.

We will be pleased to supply the matching cable socket for your devices with connector. Please refer to the list in catalog chapter "accessories" under "cable sockets - **ipf-SENSORFLEX®**" or search our Website for "VK"..

**Warning:** Never use these devices in applications where the safety of a person depends on their functionality.

You also find this data sheet, as well as contact details under [www.ipf-electronic.com](http://www.ipf-electronic.com)

**notes****export division**

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