dimensions   **9.2 x 16.5 x 20mm**
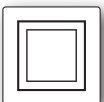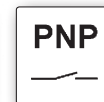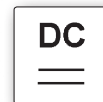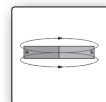
T-groove cylinders   sensor surface   **middle area
                                              below the connector**
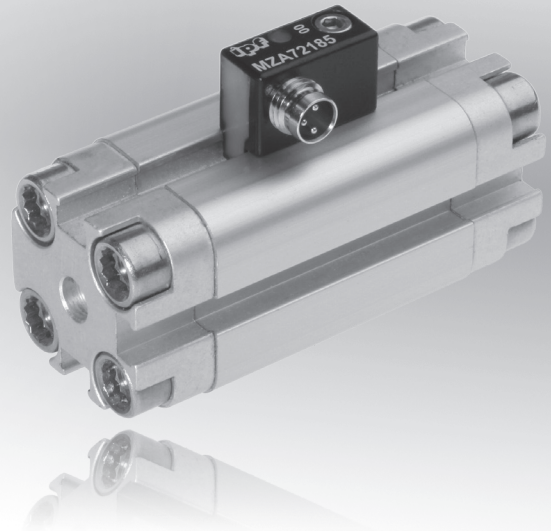
✓ **fully electronic microsensor**

✓ **robust zinc diecast housing
   (vibration-resistant)**

✓ **high locking power**

✓ **fast mounting**

✓ **very short design with built-in
   amplifier**

✓ **LED display (except for +100°C version)**

✓ **connection with M8-connector**

**can be inserted from above
new fastening system**

DC PNP M8

description

On automatic machines, there is often the requirement that a switching signal must be received at certain piston positions of a pneumatic cylinder. Here, magnetic cylinder sensors are used.

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

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

The new devices of the **MZA7** series continue this tradition. The housing is made of diecast zinc; the electronics function contactlessly and are thus wear-free. The compound provides the necessary impermeability and protects the circuit board from any possible impacts.

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

3 different devices are available for selection:
The **MZA70175** is suitable for standard applications. The previous devices **MZ070175** and **MZ070173** can be replaced with this device.
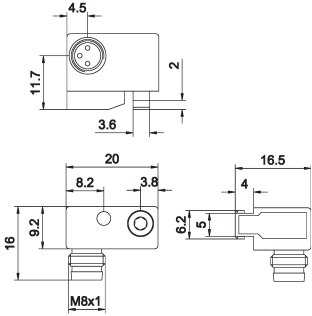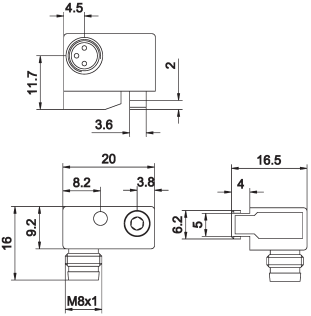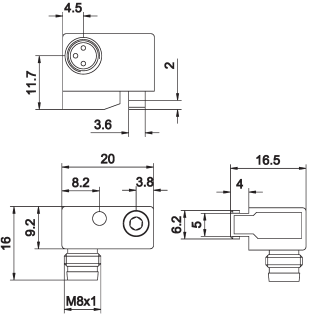
The **MZA70155** is designed for elevated ambient temperatures of up to +100°C.

The **MZA72185** has a very short travel path.

The devices can be used on all cylinders from leading manufacturers and are directly interchangeable with reed switches that use three-wire system technology. To retain the same position when replacing a cylinder sensor, the locking stop **AM000076** is available as an accessory.

application examples

▶ position detection of a cylinder piston
▶ end position sensing

ipf electronic gmbh • Kalver Straße 25 - 27 • 58515 Lüdenscheid • Germany | Tel +49 2351 9365-0 • Fax +49 2351 9365-19 |
info@ipf-electronic.com • **www.ipf-electronic.com**

239

article-no.	**MZA70175**	**MZA70155**	**MZA72185**
operating temperature	**-20 ... +70°C**	**-20 ... +100°C**	**-20 ... +70°C**
version	**standard**	**enlarged temperature range**	**shorter travel path**
sensor surface (active)	**middle area**	**middle area**	**below the connector**

TECHNICAL DATA

|			
sensor surface (active)	middle area	middle area	below 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	typ. 1mm	typ. 1mm	typ. 1mm
repeatability	±0.1mm	±0.1mm	±0.1mm
switching 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
degree of protection (EN 60529)	IP67	IP67	IP67
connection	M8-connector, 3-pin	M8-connector, 3-pin	M8-connector, 3-pin
connection accessories	e.g. **VK200075**	e.g. **VK200075**	e.g. **VK200075**
mounting accessories	**AM000076** positive stop cable clip **AM000087**	**AM000076** positive stop cable clip **AM000087**	**AM000076** positive stop cable clip **AM000087**

connection

connector device
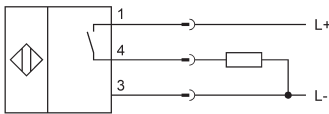
1 = L+, 3 = L-, 4 = PNP NO

wire colors: BN = brown (1), BU = blue (3), BK = black (4)

mounting
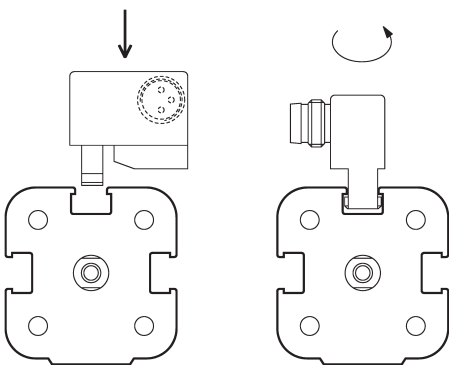
positive stop with clamp fastening AM000076

4.0
2.8
4.9
6.2
6.2
M3
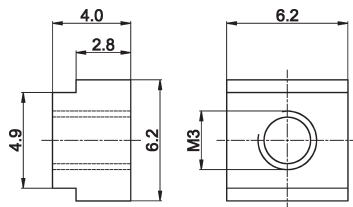
ACCESSORIES

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

This data sheet contains only the available standard versions. Please contact us for other output and connection versions.

We will be pleased to supply the matching cable socket for your connector devices. 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.

This data sheet as well as your personal contact can be found at www.ipf-electronic.com

ipf electronic gmbh • Kalver Straße 25 - 27 • 58515 Lüdenscheid • Germany │ Tel +49 2351 9365-0 • Fax +49 2351 9365-19 │
info@ipf-electronic.com • **www.ipf-electronic.com**

241

NOTES