

dimensions 12 x 12 x 22mm

round cylinders	strap retainers	Ø 6 ... Ø 147mm
pull-rods	clamps	up to 6mm
double rails	clamps	up to 6mm

- ✓ fully electronic version
- ✓ easy mounting
- ✓ high switching accuracy with small hysteresis
- ✓ integrated amplifier
- ✓ impact- and vibration-resistant
- ✓ high switching frequency
- ✓ LED display



wear-free cylinder switch
robust metal housing

8

description

For many tasks in automation technology, it is necessary to detect movements in pneumatic and hydraulic cylinders and to precisely detect the piston position. In control technology, cylinder sensors are used for this purpose. These magnetic sensors function contactlessly and wear-free on a magnetic switching element on the cylinder piston.

Magnetic cylinder sensors offer a high switching distance yet still have a small design. Because magnetic fields penetrate all non-magnetizable materials, the sensors are able to detect magnets through walls made of non-ferrous metal, stainless steel and aluminum.

The sensor of the MZ13 series can be used on nearly all cylinder variants due to the universal type of „strap retainer fastening“ and is directly interchangeable with existing reed switches that use three-wire system technology.

The sensor is provided with a notch for the strap retainer and

has rounded (concave) surfaces on two sides. As a result, exact fastening and secure guiding on the corresponding cylinder are ensured. By means of these flexible mounting options, the outlet direction of the connector may point in various directions. The LED indicator, which signals the detection of the magnetic field, is highly visible when viewing the top and front sides. Through the absolute wear-free mode of operation, maximum operational dependability and reliability are ensured.

application examples

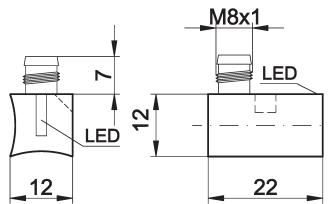
- ▶ position detection of a cylinder piston
- ▶ end position sensing during feed movements
- ▶ recognition of magnetic switching cams, even through housing walls

article-no.

MZ130175

connection

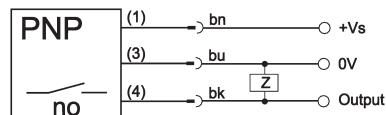
M8-connector



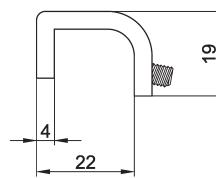
TECHNICAL DATA

sensor surface (active)	middle area	
output signal	pnp, no	
operating voltage	10 ... 30V DC	
current consumption (w/o load)	≤ 15mA	
output current (max. load)	200mA	
voltage drop (max. load)	2.0V DC	
hysteresis	typ. 1mm	
repeat accuracy	±0.1mm	
switching frequency	1kHz	
display (signal)	yellow LED	
short-circuit protection	+	
reverse polarity protection	+	
housing material	aluminum	
dimensions	12x12x22mm	
operating temperature	-25 ... +70°C	
degree of protection (EN 60529)	IP67	
connection	M8-connector, 3-pin	
connection accessories	e.g. VK200075	
mounting accessories (clamp)	AM000005 , zinc, for pull-rods and double rails up to 6mm	
mounting accessories (strap retainer)	AM000003 , stainl. steel, for cylinder Ø 6 to 17mm AM000004 , stainl. steel, for cylinder Ø 26 to 37mm AM000007 , stainl. steel, for cylinder Ø 50 to 67mm AM000063 , stainl. steel, for cylinder Ø 100 to 115mm	AM000061 , stainl. steel, for cylinder Ø 16 to 27mm AM000062 , stainl. steel, for cylinder Ø 36 to 47mm AM000008 , stainl. steel, for cylinder Ø 80 to 97mm AM000064 , stainl. steel, for cylinder Ø 130 to 147mm

connection



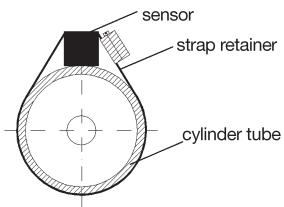
clamp



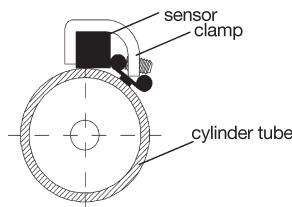
wire colors: bn = brown (1), bu = blue (3), bk = black (4)

mounting examples

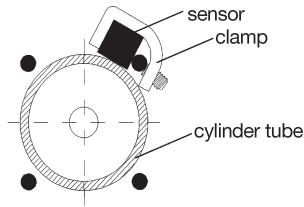
Round cylinder with strap retainer



double rail cylinder with clamp



pull-rod cylinder with clamp



This data sheet only contains the available standard variants. For other output / connection variants, we kindly ask that you contact us.

We are happy to supply the right cable socket for the plug equipment. You will find a list in the "accessories" section of the catalog under **ipf-SENSORFLEX®** "cable sockets" or in the search window on our homepage www.ipf-electronic.com (using the search term "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