magnetic sensors





description

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With automatic machines there is often the requirement to retain a switch signal for certain piston positions of a pneumatic cylinder. For this, magnetic cylinder sensors are used.

These magnetic sensors enable contactless position recognition in the control system in a way which avoids wear and tear.

Magnetic cylinder sensors offer a higher sensing range and at the same time, have a small design.

As magnetic fields penetrate all non-magnetizable materials, the sensor magnets can for example sense through non-ferrous metal walls, steel walls or aluminium walls. The electronic cylinder sensors can be used on all cylinders made by leading manufacturers (Bosch, Festo, Norgren Martonair, Numatics) and are directly exchangeable against three-wire system technology reed switches.

To keep the same position when exchanging a cylinder sensor the positive stop **AM000076** is offered as an accessory.

application examples

- detecting the position of a cylinder piston
- limit of travel enquiry

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magnetic sensors

1300 cylinder sensors

article-no.	MZ0701A4	MZ070174	MZ070124
connection	2m PUR cable	0.3m M8-cable connector, PUR	0.3m M12-cable connector, PU
article-no.		MZ0701F4	MZ0701E4
connection	-	0.6m M8-cable connector, PUR	0.6m M12-cable connector, PUI
article-no.	-	MZ0701K4	-
connection	-	1.0m M8-cable connector, PUR	-
	hexagon socket screw M3 active sensor surface	hexagon socket screw M3 active sensor surface LED Ø max. 9mm connector M8	estimation of the sensor surface LED
sensor surface (active) output signal	middle area pnp, no	middle area	middle area
	1 1.		pnp, no
operating voltage current consumption (w/o load)	10 30V DC ≤ 15mA	10 30V DC ≤ 15mA	10 30V DC ≤ 15mA
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	1kHz	1kHz	1kHz
status display	yellow LED	yellow LED	yellow LED
short-circuit protection	+	+	+
reverse polarity protection	+	+	+
housing material	zinc diecast	zinc diecast	zinc diecast
design	6.2x6.3x30mm	6.2x6.3x30mm	6.2x6.3x30mm
operating temperature	-25 +75°C	-25 +75°C	-25 +75°C
system of protection (EN 60529)	IP67	IP67	IP67
connection	2m PUR-cable, 3-wire	M8-connector, 3-pin	M12-connector, 3-pin (assigned
connection accessories	-	e.g. VK200071 , 2m	e.g. VK000021 , 2m
mounting accessories	AM000076	AM000076	AM000076
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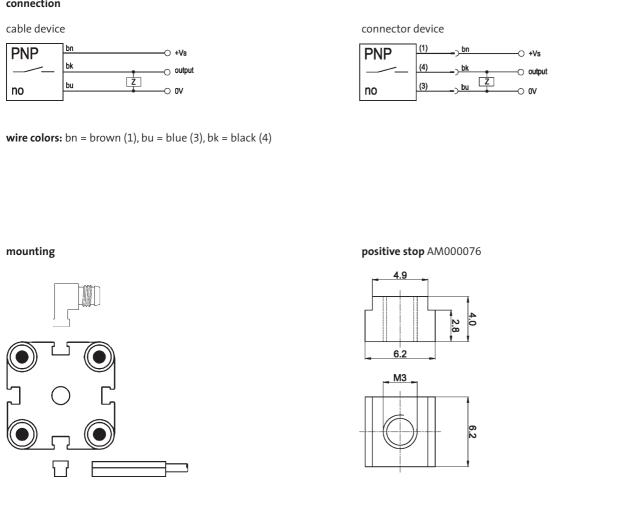
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dection		cylinder sensors 1300		
article-no. connection	MZ070125 M12-connector	MZ070175 M8-connector		
	hexagon socket screw M3 LED N LED 10.1 10.1 10.1 LED Active sensor surface	hexagon socket screw M3 \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow		
ECHNICAL DATA ensor surface (active)	border area	border area		
ensor surface (active) utput signal	pnp, no	pnp, no		
ensor surface (active) utput signal perating voltage				
ensor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load)	pnp, no 10 30V DC	pnp, no 10 30V DC		
ensor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load) oltage drop (max. load)	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC		
ensor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load) oltage drop (max. load) vsteresis	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm		
ensor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load) oltage drop (max. load) ysteresis peatability	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm		
insor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load) oltage drop (max. load) vsteresis peatability mpling frequency	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz		
insor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load) oltage drop (max. load) vsteresis peatability mpling frequency atus display	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz yellow LED	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz yellow LED		
ensor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load) oltage drop (max. load) vsteresis peatability umpling frequency atus display port-circuit protection	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz		
insor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load) utput current (max. load) oltage drop (max. load) visteresis peatability mpling frequency atus display port-circuit protection verse polarity protection	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz yellow LED +	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz yellow LED +		
ensor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load) oltage drop (max. load) vesteresis peatability mpling frequency atus display nort-circuit protection verse polarity protection pusing material esign	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz yellow LED + +	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz yellow LED + + +		
ensor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load) oltage drop (max. load) vsteresis peatability mpling frequency atus display nort-circuit protection verse polarity protection pusing material esign perating temperature	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm $\pm 0.1mm$ 1kHz yellow LED + zinc diecast 20.2x22x23mm -25 +75°C	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz yellow LED + + zinc diecast 17.1x16x22mm -25 +75°C		
ensor surface (active) utput signal perating voltage urrent consumption (w/o load) utput current (max. load) pltage drop (max. load) pltage drop (max. load) ysteresis peatability ampling frequency atus display nort-circuit protection everse polarity protection pusing material esign perating temperature rstem of protection (EN 60529)	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz yellow LED + zinc diecast 20.2x22x23mm -25 +75°C IP67	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz yellow LED + zinc diecast 17.1x16x22mm -25 +75°C IP67		
ensor surface (active) utput signal	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm $\pm 0.1mm$ 1kHz yellow LED + zinc diecast 20.2x22x23mm -25 +75°C	pnp, no 10 30V DC ≤ 15mA 150mA 2.0V DC typical 1mm ±0.1mm 1kHz yellow LED + + zinc diecast 17.1x16x22mm -25 +75°C		

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connection



The list of articles 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.



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