



cylinder sensors 1800

design **30 x 30 x 23mm**

37.3 x 30 x 25.4mm 40.8 x 30 x 33.5mm

pull-rod clamping width

10mm 14mm 18mm



- √ simple mounting
- √ high sampling accuracy at small hysteresis
- ✓ shock and vibration resistant
- ✓ integrated amplifier
- √ high sampling frequency
- ✓ status display by LED
- ✓ connection with cable and M12-connector

electronic cylinder switch robust metal housing









description

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 high sensing range and at the same time, have a small design.

As magnetic fields penetrate all non-magnetizable mate-

rials, the sensor magnets can for example sense through non-ferrous metal walls, steel walls and 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.

application examples

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





magnetic sensors

1800 cylinder sensors



article-no.	MZ310100	MZ310120	MZ380100
clamping width	10mm	10mm	14mm
connection	2m cable	Connector M1221 10.5 30 ED 8	2m cable
TECHNICAL DATA	áctive sensor surface	áctive sensor surface	áctive sensor surface
sensor surface (active)	border area	border area	border area
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)	300mA	300mA	300mA
voltage drop (max. load)	1.5V DC	1.5V DC	1.5V DC
hyteresis	typical 1mm	typical 1mm	typical 1mm
repeat accuracy	±0.1mm	±0.1mm	±0.1mm
sampling frequency	±0.1mm 5kHz	±0.1mm 5kHz	±0.1mm 5kHz
status display	LED yellow	LED yellow	LED yellow
short-circuit protection	+	+	+
reverse polarity protection	+	+	+
housing material	aluminium	aluminium	aluminium
design	30x30x23mm	30x30x34mm	37.3x30x25.4mm
operating temperature	-25 +75°C	-25 +75°C	-25 +75°C
system of protection (EN 60529)	IP67	IP67	IP67
connection	2m cable, 3-wire	M12-connector, 3-pin	2m cable, 3-wire
connection accessories	ziii cabie, 5-wiie	e.g. VK200021 , 2m, PUR, angular	ziii cable, 5-wiie
	Charles 27 Francis 40 (0) 2251 (0		







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Article-no. clamping width connector 14mm 18mm 18mm 18mm connector 2m cable connector 2m				
TECHNICAL DATA Sensor surface (active) border area active sensor surface TECHNICAL DATA Sensor surface (active) border area pnp. no				
TECHNICAL DATA Sensor surface (active) output signal pnp, no pnp, no pnp, no pnp, no porating voltage do utput signal output current (max. load) active sensor surface (active sensor	article-no.	MZ380120	MZ410100	MZ410120
TECHNICAL DATA Sensor surface (active) output signal pnp, no pnp, no pnp, no pnp, no porating voltage do utput signal output current (max. load) active sensor surface (active sensor	clamping width	14mm	18mm	18mm
TECHNICAL DATA sensor surface (active) operating voltage current consumption (w/o load) output current (max. load) voltage drop (max. load) voltage drop (max. load) 1.5V DC		connector	2m cable	connector
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output signalpnp, nopnp, nopnp, nooperating voltage10 30V DC10 30V DC10 30V DCcurrent consumption (w/o load)\$ 10mA\$ 10mA\$ 10mAoutput current (max. load)300mA300mA300mAvoltage drop (max. load)1.5V DC1.5V DC1.5V DChyteresistypical 1mmtypical 1mmtypical 1mmrepeat accuracy±0.1mm±0.1mm±0.1mmsampling frequency5kHz5kHz5kHzstatus displayLED yellowLED yellowLED yellowshort-circuit protection+++reverse polarity protection+++housing materialaluminiumaluminiumaluminiumdesign42x30x30mm40.8x30x33.5mm53x30x33.5mmoperating temperature-25 +75°C-25 +75°C-25 +75°Csystem of protection (EN 60529)IP67IP67IP67connectionM12-connector, 3-pin2m PUR-cable, 3-wireM12-connector, 3-pinconnection accessoriese.g. VK200021, 2m,-e.g. VK200021, 2m,				
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current consumption (w/o load) output current (max. load) 300mA 40.8vical 1mm typical 1mm to 1.5V DC 1.5V D	operating voltage	10 30V DC	10 30V DC	10 30V DC
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operating temperature -25 +75 °C -25 +75 °C -25 +75 °C system of protection (EN 60529) IP67 IP67 IP67 connection M12-connector, 3-pin 2m PUR-cable, 3-wire M12-connector, 3-pin connection accessories e.g. VK200021, 2m,				
system of protection (EN 60529) IP67 IP67 IP67 connection M12-connector, 3-pin 2m PUR-cable, 3-wire M12-connector, 3-pin connection accessories e.g. VK200021, 2m, - e.g. VK200021, 2m,		42x30x30mm	40.8x30x33.5mm	53x30x33.5mm
system of protection (EN 60529) IP67 IP67 IP67 connection M12-connector, 3-pin 2m PUR-cable, 3-wire M12-connector, 3-pin connection accessories e.g. VK200021, 2m, - e.g. VK200021, 2m,	operating temperature	-25 +75°C	-25 +75°C	-25 +75°C
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connection accessories e.g. VK200021 , 2m, - e.g. VK200021 , 2m,				
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magnetic sensors

1800 cylinder sensors



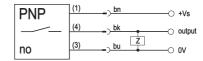
connection

cable device



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

connector device



mounting on pull-rod cylinders



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.



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