Programmable magnetic switch

Magnetic switches are used for monitoring the position of automation components. They detect the approach of a magnet without contact and, above a certain switching threshold, enable their output.

Application example

Functional description

One switch detects the two conditions "open" and "closed" - Therefore the costs for one switch can be saved.

In contrast to conventional solutions, the switching point of the sensor is taught by pushing the button at the current piston position.

If the automatically determined standard switching hysterisis should be optimized, it can be newly programmed.

Your advantages and benefits

Installation into the sensor groove
for space-saving, easy and fast assembly

Very flexible cable in PUR-version
for a long service lifetime and resistance against many chemicals

Version with plug connectors
for an easy and fast exchangeability of the extension cable
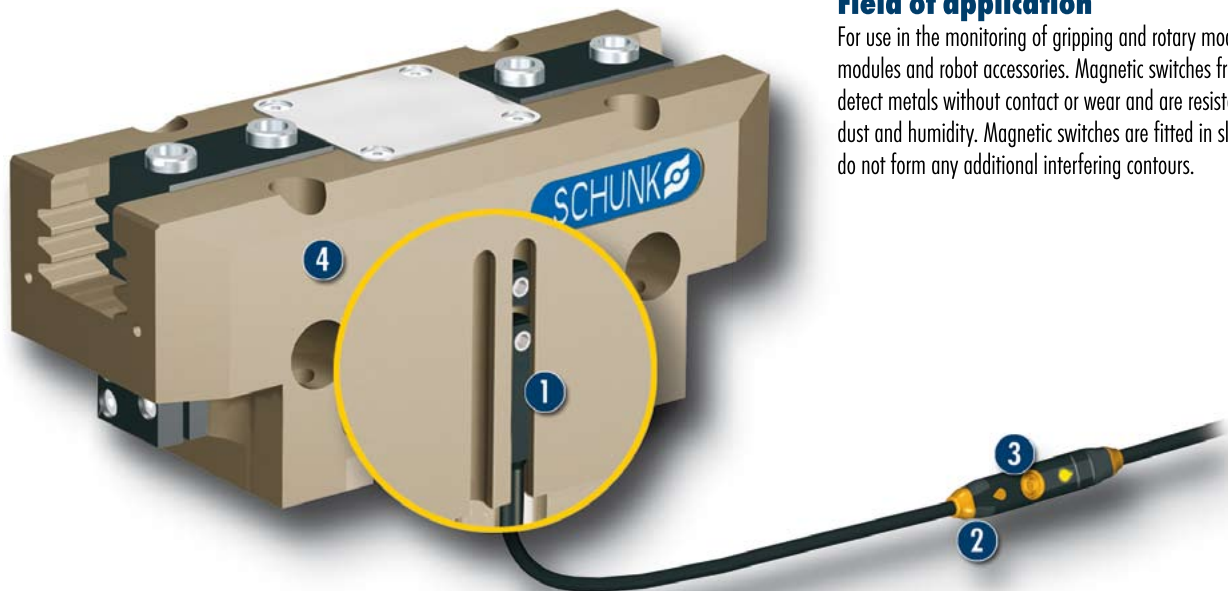
A programmable C-slot switch
for two switching points

Programmable switching off hysterisis
for exact postions

Version with LED-display
for control of the switching status directly at the sensor

Magnetic Switch MMS-P

Sectional diagram

Field of application

For use in the monitoring of gripping and rotary modules, linear modules and robot accessories. Magnetic switches from SCHUNK detect metals without contact or wear and are resistant to vibration, dust and humidity. Magnetic switches are fitted in slots and therefore do not form any additional interfering contours.

①	Sensor of the MMS-P 22	③	Key button for programming
②	Electronic of the MMS-P 22	④	Actuator with preset stop

General note to the series

SCHUNK gripping modules, rotary actuators and linear modules, as well as robot accessories should be monitored with the suitable sensors from SCHUNK, since everything is adjusted to each other.
Adjustment of sensor and product is characterized by the interplay of the parameter type and strength of the magnet, clearance, wall thickness and wall material between magnet and sensor, and by alignment and sensitivity of the sensor.

Sensors of other manufacturers which are integrated into SCHUNK products, seldom provide excellent switching results. Moreover, we cannot guarantee proper function or functional safety of them.

General information

Housing material
PA

Material of the cable coating
PUR

Mounting
clamped in the sensor groove, fixed with a socket head screw

Warranty
24 months (details, general terms and conditions and operation manuals can be downloaded under www.schunk.com)

Options and special information

Protection class as per DIN 40050
IP67 in plugged position for the use in clean or dusty environments or if contact with water is given. Functionability in case of contact with other mediums (coolant, acids, bases, etc.) is often given, however cannot be guaranteed by SCHUNK

Power supply
10 - 30 V DC at < 10 % residual ripple

MMS-P 22

Accessories • Sensor System • Programmable Magnetic Switch

Wiring diagram closer
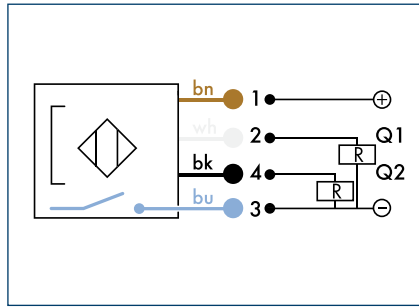
Technical data

Description		MMS-P 22-S-M8-PNP	MMSK-P 22-S-PNP
ID		0301370	0301371
Switching function		Closer	Closer
Type of switching		PNP	PNP
Cable length	[cm]	30	200
Cable connector/ cable end		M8	open wires
Type of voltage		DC	DC
Nominal voltage	[V]	24	24
Min. voltage	[V]	10	10
Max. voltage	[V]	30	30
Power failure	[V]	2.2	2.2
Max. switching current	[A]	0.15	0.15
Min./max. ambient temperature	[°C]	-5/55	-5/55
Max. switching frequency	[Hz]	1000	1000
Typical switching time	[s]	0.001	0.001
Tightness IP (sensor)		67	67
Tightness IP (sensor plugged)		67	67
LED displac at the sensor		Yes	Yes
Cable diameter	[mm]	2.6	2.6
Min. bending radius (dynamically)	[mm]	39	39
Min. bending radius (statically)	[mm]	26	26
Number of cores		4	4
Wire cross section	[mm^2]	0.08	0.08

SCHUNK

MMS-P 22 sensor
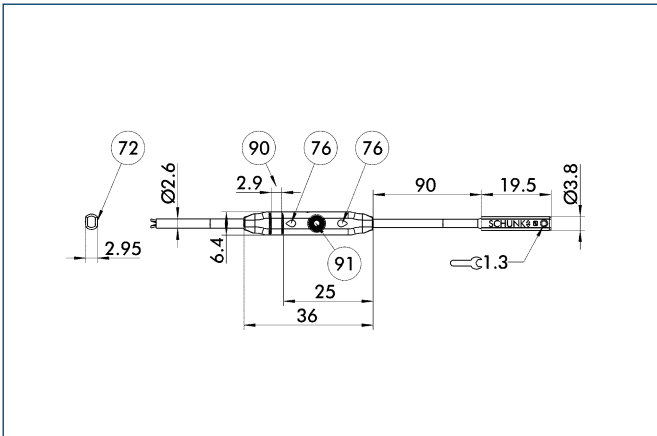
72 Active sensor surface
76 LED
90 Rib for cable connector
91 Key button

M8 4PIN Trapez connector