



Superior Clamping and Gripping



Product Information

Programmable magnetic switches MMS-P

MMS-P

Programmable magnetic switches

Programmable. Flexible. Easy assembly.

MMS-P programmable magnetic switch

A magnetic switch is used for monitoring the status of automation components. They detect the approach of a magnet without contact and above a certain switching value, they put out a digital signal.

Field of application

Used for monitoring gripping and rotary modules, as well as linear modules, and robot accessories. Magnetic switches from SCHUNK detect magnets without contact or wear, and are resistant to vibrations, dust and humidity. Magnetic switches are installed in slots, and thus do not produce any additional interfering contours. For connection with a digital input module (utilization category DC-12).

Advantages – Your benefits

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

Very flexible cable in PUR version for a long service life

Version with standard plug connector for fast and easy exchangeability of the extension cable

A programmable C-slot switch for two switching points

Programmable switching off hysteresis for exact positions

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



Options and special information

High protection class: IP67 when plugged in, for use in clean or dusty environments or in case of contact with water. Operability in case of contact with other media (coolant, acids, bases, etc.) is often given, however cannot be guaranteed by SCHUNK.

Power supply: 10 – 30 V DC at < 10% residual ripple

Sources of interference: Sensors can be influenced by other magnetic fields in the immediate vicinity. Disturbing magnetic fields can be generated by motors, electric welders, permanent magnets or magnetized material (so-called soft magnets) such as hexagon socket wrenches, chips, etc.

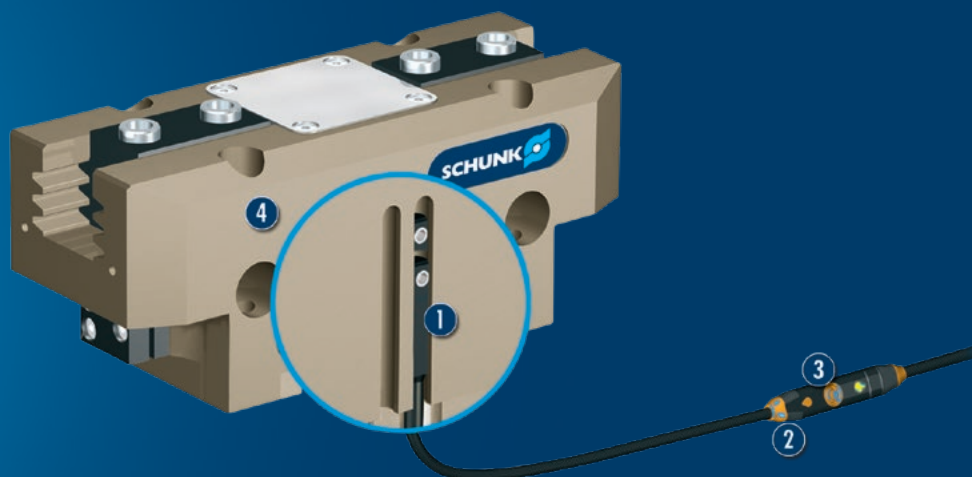
Functional description

A single 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 hysteresis should be optimized, it can be newly programmed.



① Sensor of the MMS-P 22

② Electronics of the MMS-P 22

③ Button for programming

④ Actuator with preset stop

SCHUNK offers more ...

The following components make the product even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.



Connector clip CLI



Sensor cables



Sensor distributor



SST sensor tester

① For more information on these products can be found on the following product pages or at schunk.com.

MMS-P 22

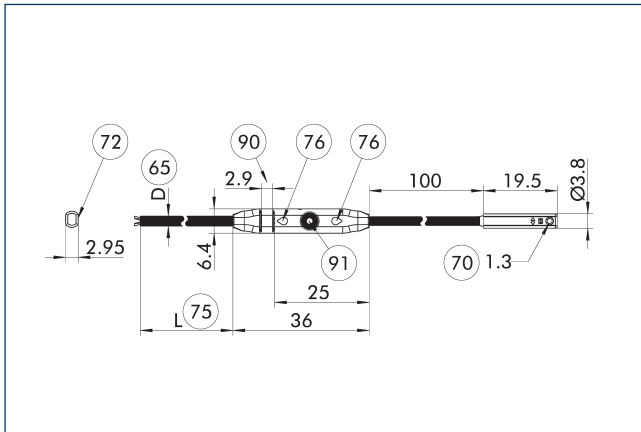
Programmable magnetic switches



Technical data

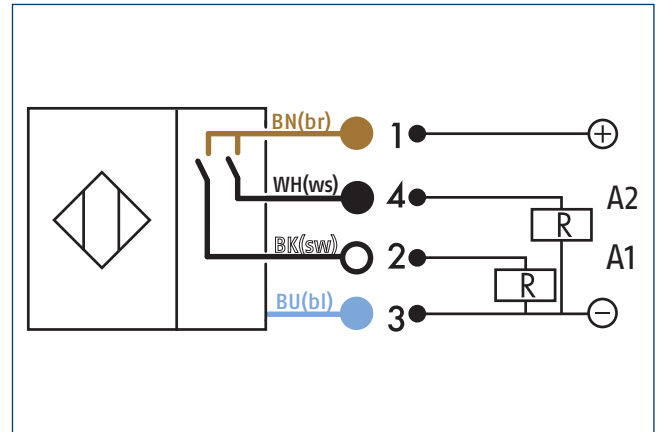
Description		MMS-P 22-S-M8-PNP	MMSK-P 22-S-PNP
ID		0301370	0301371
Principle of function			
Switching function		Closer	Closer
Type of switching		PNP	PNP
Number of switching points		2	2
typical switching time	[s]	0.001	0.001
Linearity error			
Weight	[kg]	0.01	0.02
Min./max. ambient temperature	[°C]	5/55	5/55
Tightness IP (sensor)		67	67
Tightness IP (sensor, connected)		67	67
LED display in sensor		yes	yes
Type of voltage		DC	DC
Nominal voltage	[V]	24	24
Min. voltage	[V]	12	12
Max. voltage	[V]	30	30
Voltage drop	[V]	2.2	2.2
Max. switching current	[A]	0.1	0.1
Cable diameter D	[mm]	2.6	2.6
Min. bending radius (dynamic)	[mm]	39	39
Min. bending radius (static)	[mm]	26	26
Number of pins		4	4
Number of wires		4	4
Wire cross section	[mm ²]	0.08	0.08
Cable length L	[cm]	60	200
Cable connector/cable end		M8	open wire strands

MMS-P main view

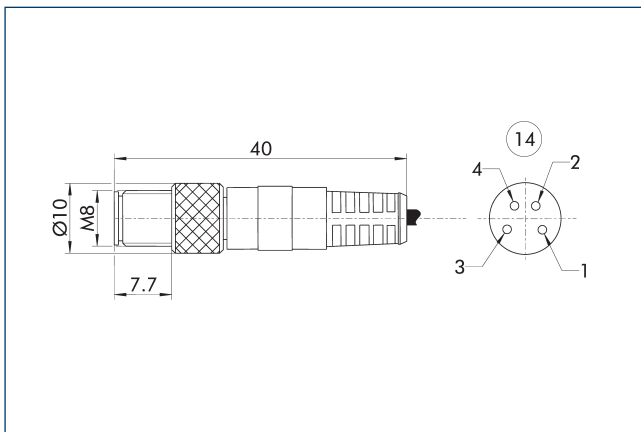


- ⑥5 Cable diameter
- ⑦0 Wrench size
- ⑦2 Active sensor surface
- ⑦5 Cable length
- ⑦6 LED
- ⑨0 Rib for cable connector
- ⑨1 Key button

Wiring diagram closer PNP



View M8 connector (4 pins)



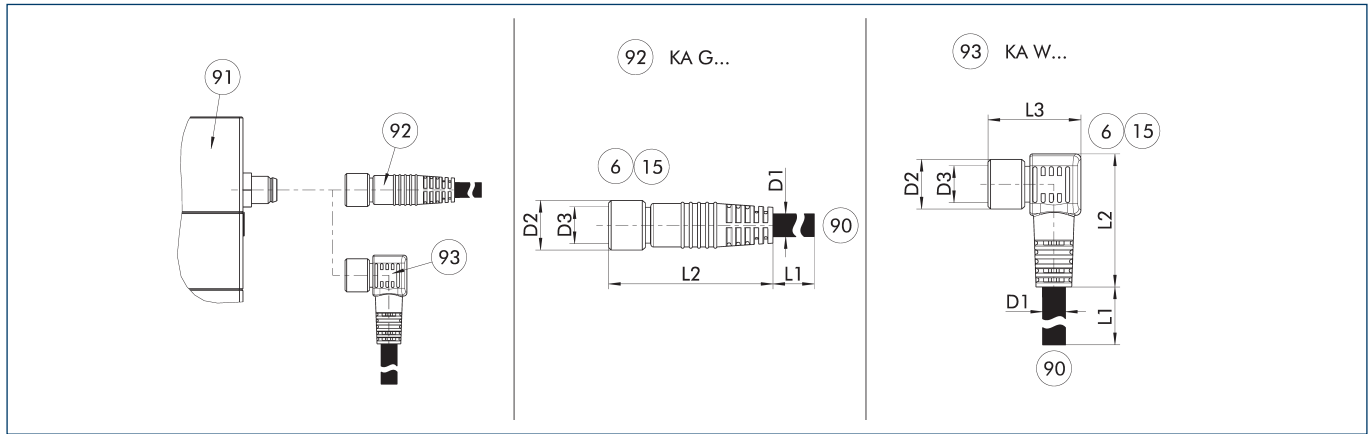
- ⑭ Connector

This view shows the plug connector on the cable end of the sensor.

MMS-P 22

Programmable magnetic switches

Voltage supply connection cable



KA G... Connection cable with straight socket
 KA W... Connection cable with angular socket

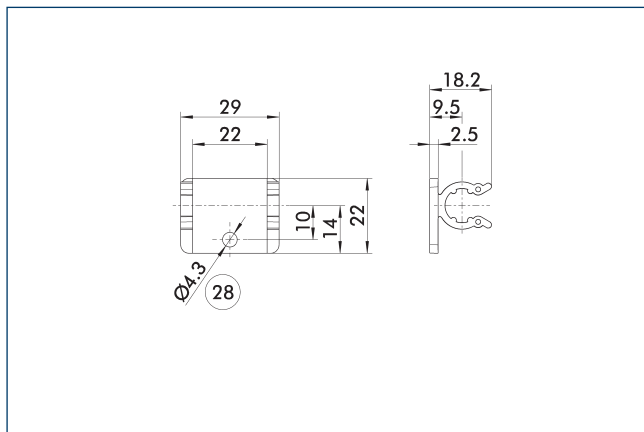
- ⑥ Connection module side
- ⑬ Socket
- ⑨⑩ SAC connection cable with open wire strands
- ⑨① Connection plug component
- ⑨② Cable with straight female connector
- ⑨③ Cable with angled female connector

The connection cable is ideal for connecting the corresponding components to the controller or the power supply unit. The connection cable has a 4-pin M8 socket on one side and an open wire strand on the other side for individual connections. The connection cables are suitable for use both in the cable track as well as in torsion applications.

Description	ID	L1 [m]	D1 [mm]	L2 [mm]	D2 [mm]	L3 [mm]	D3	Often combined
Connection cables								
KA GLN0804-LK-00500-A	0307767	5	5.3	35	10		M8	●
KA GLN0804-LK-01000-A	0307768	10	5.3	35	10		M8	
KA WLN0804-LK-00500-A	0307765	5	5.3	29	10	20	M8	
KA WLN0804-LK-01000-A	0307766	10	5.3	29	10	20	M8	

① Please observe the min. bending radius for cable track-compatible cables or the max. torsion angle for torsion-compatible cables. These are generally 10 times the cable diameter or +/- 180°/m.

CLI-M8 main view



⑳ Through-hole

Description	ID
clip for plug/socket	
CLI-M8	0301463



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