Non-Contact. Reliable. Easy Assembly.

Electronic Magnetic Switches MMS

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.

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. For connection with a digital input module (utilization categorie DC-12).

Advantages – Your benefit

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

Version with LED-display for checking the switching position directly at the sensor

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

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

Options and special Information

ATEX version EX for explosive environments

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, residual ripple < 10%

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 allen keys, metal chips, etc.

Application Example

① **Magnetic Switch MMS**

② **Universal Gripper PGN-plus**

③ **Tolerance Compensation Unit TCU-P**

SCHUNK offers more ...

The following components make the MMS even more productive – the perfect complement for highest functionality, flexibility and process reliability.

Sensor Cables

Connector Clip

Sensor Distributor

Sensor Tester SST

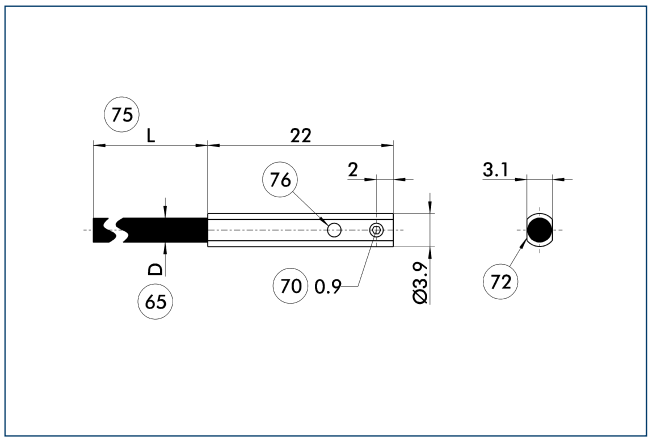
ⓘ Further information regarding the products can be found on the following product pages or at www.schunk.com.
Please contact us for further information: SCHUNK technical hotline +49-7133-103-2696

MMS 22

Technical data

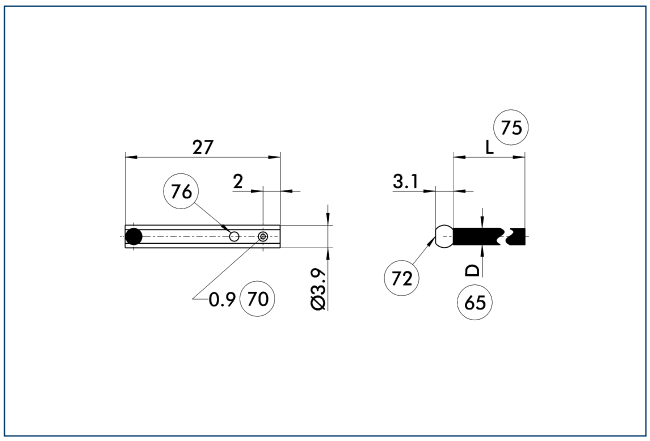
Description		MMS 22-S-M8-PNP	MMS 22-S-M8-NPN	MMSK 22-S-PNP	MMSK 22-S-NPN
ID		0301032	0301033	0301034	0301035
Switching function		Closer	Closer	Closer	Closer
Type of switching		PNP	NPN	PNP	NPN
Product weight	[kg]	0.01	0.01	0.04	0.04
min. / max. ambient temperature	[°C]	-10/70	-10/70	-10/70	-10/70
IP class (sensor)		67	67	67	67
IP class (sensor connected)		67	67	67	67
LED display in sensor		yes	yes	yes	yes
Type of voltage		DC	DC	DC	DC
Nominal voltage	[V]	24	24	24	24
min. voltage	[V]	10	10	10	10
max. voltage	[V]	30	30	30	30
Voltage drop	[V]	2	2	2	2
max. switching current	[A]	0.005	0.005	0.005	0.005
Cable diameter D	[mm]	2.1	2.1	2.1	2.1
min. bending radius (dynamically)	[mm]	21	21	21	21
min. bending radius (statically)	[mm]	10.5	10.5	10.5	10.5
Number of wires		3	3	3	3
Wire cross section	[mm²]	0.14	0.14	0.14	0.14
Cable length L	[cm]	30	30	200	200
Cable connector / cable end		M8	M8	open wires	open wires
Options and their characteristics					
Version with lateral cable outlet		MMS 22-S-M8-PNP-SA	MMS 22-S-M8-NPN-SA	MMSK 22-S-PNP-SA	MMSK 22-S-NPN-SA
ID		0301042	0301043	0301044	0301045

MMS 22 main view



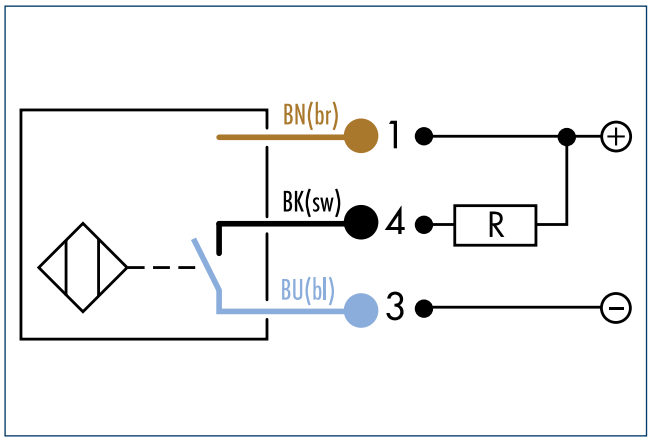
65 Cable diameter
70 Wrench size
72 Active sensor surface
75 Cable length
76 LED

MMS 22-SA main view

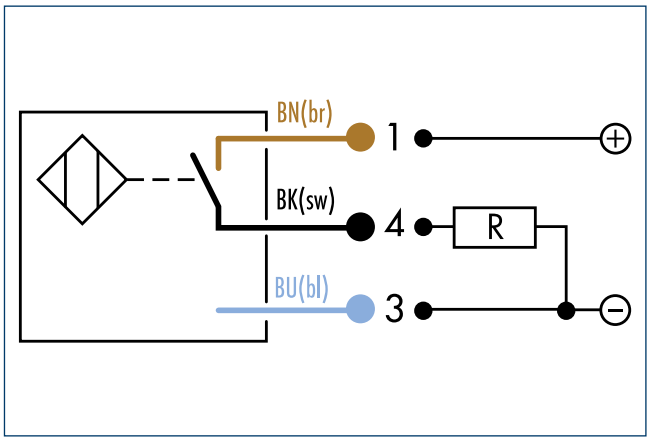


65 Cable diameter
70 Wrench size
72 Active sensor surface
75 Cable length
76 LED

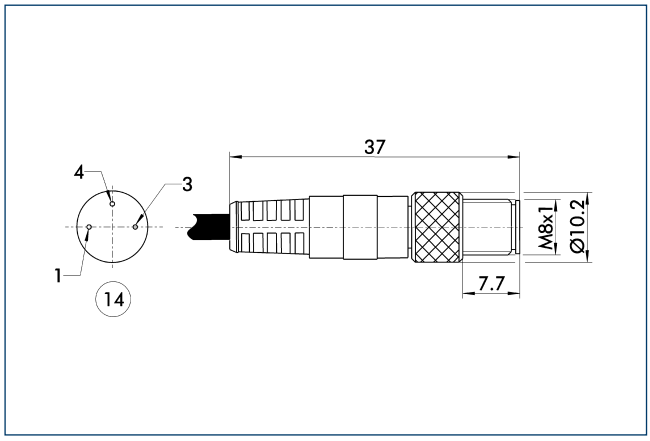
Circuit diagram of NPN closer



Circuit diagram of PNP closer

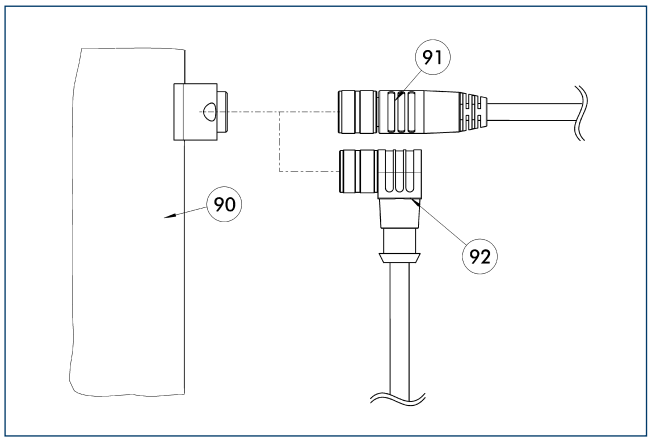


M8 connector



14 Connector

Cable connector / cable extension



90 Connecting point for component

91 Cable with straight connection

92 Cable with angular connection

Description	ID	Length	Connection electric cabinet sided	often combined
Connection cables				
KA BG08-L 3P-0300-PNP	0301622	3 m	open wires	●
KA BG08-L 3P-0500-PNP	0301623	5 m	open wires	
KA BW08-L 3P-0300-NPN	0301602	3 m	open wires	
KA BW08-L 3P-0300-PNP	0301594	3 m	open wires	
KA BW08-L 3P-0500-NPN	9641116	5 m	open wires	
KA BW08-L 3P-0500-PNP	0301502	5 m	open wires	
Cable extensions				
KV BW08-SG08 3P-0030-PNP	0301495	0.3 m	Connector	
KV BW08-SG08 3P-0100-PNP	0301496	1 m	Connector	
KV BW08-SG08 3P-0200-PNP	0301497	2 m	Connector	●

ⓘ BG stands for a connection cable with a straight female connector and BW for an angled female connector.

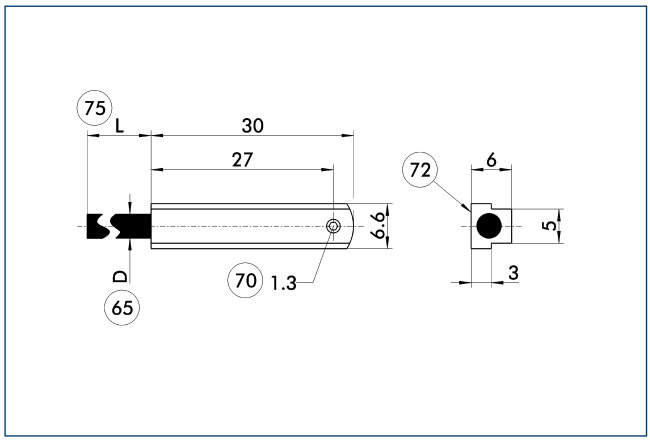
MMS 30

Accessories | Sensor System | Electronic Magnetic Switches MMS

Technical data

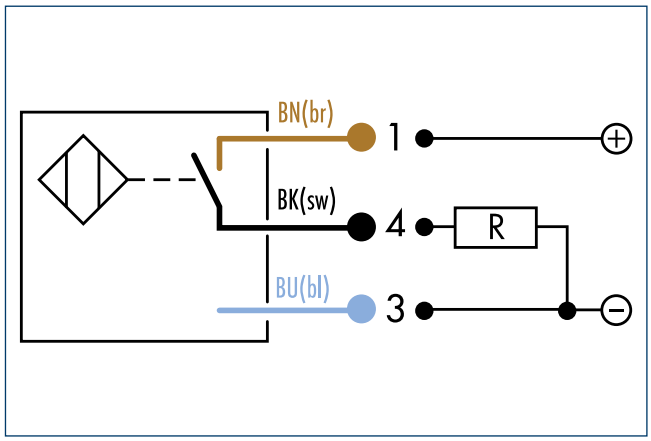
Description		MMS 30-S-M8-PNP	MMS 30-S-M12-PNP	MMSK 30-S-PNP
ID		0301471	0301571	0301563
Switching function		Closer	Closer	Closer
Type of switching		PNP	PNP	PNP
Product weight	[kg]	0.04	0.02	0.1
min. / max. ambient temperature	[°C]	-25/70	-25/70	-25/70
IP class (sensor)		67	67	67
IP class (sensor connected)		67	67	67
LED display in sensor		no	no	no
Type of voltage		DC	DC	DC
Nominal voltage	[V]	24	24	24
min. voltage	[V]	10	10	10
max. voltage	[V]	30	30	30
Voltage drop	[V]	1.5	1.5	1.5
max. switching current	[A]	0.2	0.2	0.2
Cable diameter D	[mm]	3.5	3.5	3.5
min. bending radius (dynamically)	[mm]	35	35	35
min. bending radius (statically)	[mm]	17.5	17.5	17.5
Number of wires		3	3	3
Wire cross section	[mm²]	0.14	0.14	0.14
Cable length L	[cm]	30	30	200
Cable connector / cable end		M8	M12	open wires

MMS 30 main view

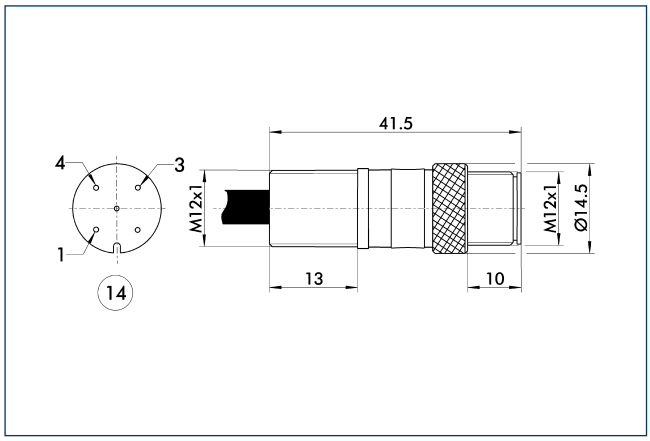


65 Cable diameter
70 Wrench size
72 Active sensor surface
75 Cable length

Circuit diagram of PNP closer

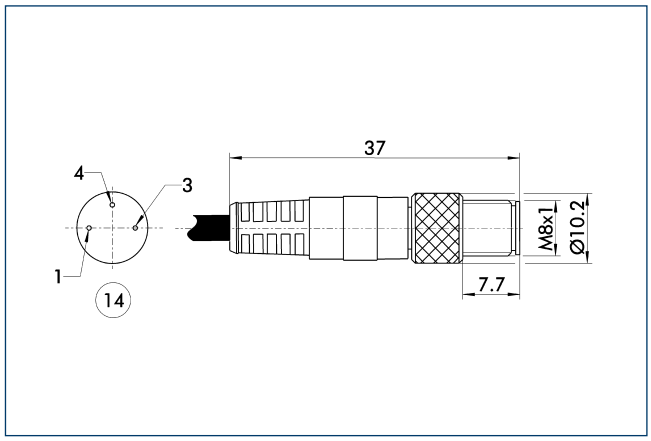


M12 connector



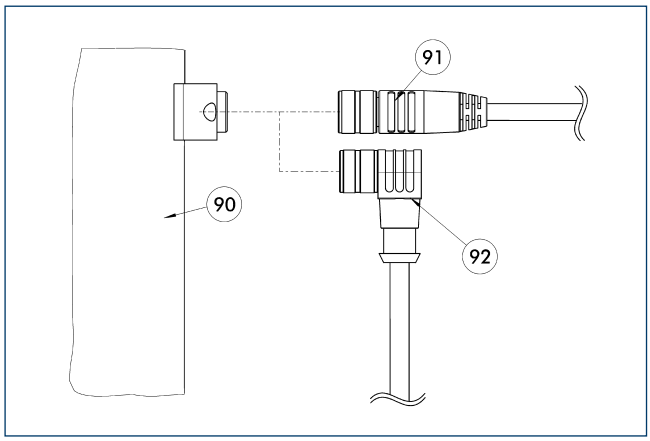
14 Connector

M8 connector



14 Connector

Cable connector / cable extension



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Description	ID	Length	Connection electric cabinet sided	often combined
Connection cables				
KA BG08-L 3P-0300-PNP	0301622	3 m	open wires	●
KA BG08-L 3P-0500-PNP	0301623	5 m	open wires	
KA BG12-L 3P-0500-PNP	30016369	5 m	open wires	
KA BW08-L 3P-0300-PNP	0301594	3 m	open wires	
KA BW08-L 3P-0500-PNP	0301502	5 m	open wires	
Cable extensions				
KV BG12-SG12 3P-0030-PNP	0301999	0.3 m	Connector	
KV BG12-SG12 3P-0060-PNP	0301998	0.6 m	Connector	
KV BW08-SG08 3P-0030-PNP	0301495	0.3 m	Connector	
KV BW08-SG08 3P-0100-PNP	0301496	1 m	Connector	
KV BW08-SG08 3P-0200-PNP	0301497	2 m	Connector	●
KV BW12-SG12 3P-0030-PNP	0301595	0.3 m	Connector	
KV BW12-SG12 3P-0100-PNP	0301596	1 m	Connector	
KV BW12-SG12 3P-0200-PNP	0301597	2 m	Connector	

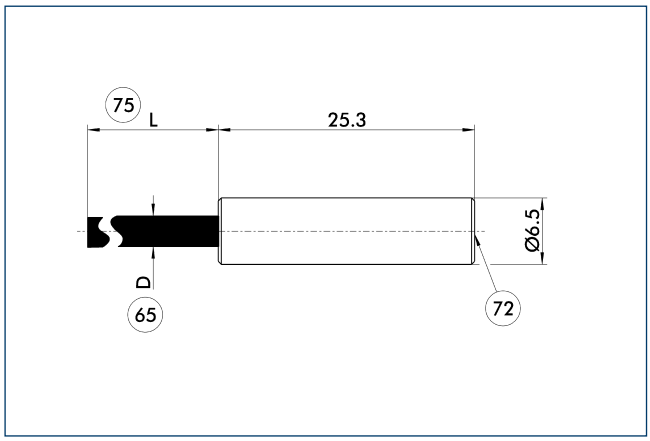
ⓘ BG stands for a connection cable with a straight female connector and BW for an angled female connector.

MMS 65

Technical data

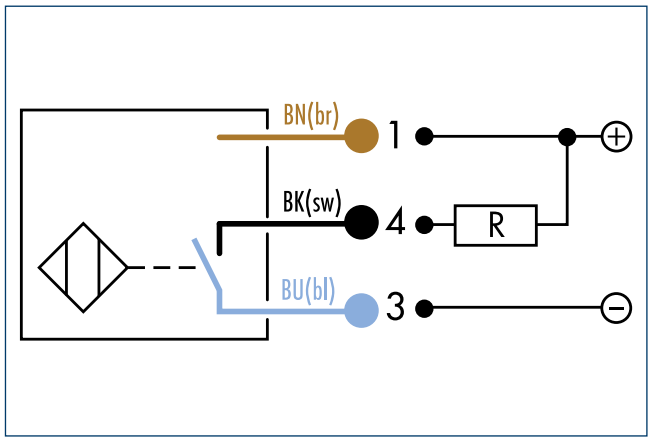
Description		MMS-K 65-5-PNP	MMS-K 65-5-NPN
ID		0301423	0301424
Switching function		Closer	Closer
Type of switching		PNP	NPN
min. / max. ambient temperature	[°C]	-20/70	-20/70
IP class (sensor)		67	67
IP class (sensor connected)		67	67
LED display in sensor		no	no
Type of voltage		DC	DC
Nominal voltage	[V]	24	24
min. voltage	[V]	10	10
max. voltage	[V]	30	30
Voltage drop	[V]	1.5	1.5
max. switching current	[A]	0.2	0.2
min. bending radius (dynamically)	[mm]	21	21
min. bending radius (statically)	[mm]	10.5	10.5
Number of wires		3	3
Wire cross section	[mm²]	0.14	0.14
Cable length L	[cm]	200	200
Cable connector / cable end		open wires	open wires

MMS-K 65 main view



65 Cable diameter
72 Active sensor surface
75 Cable length

Circuit diagram of NPN closer



Circuit diagram of PNP closer