



Superior Clamping and Gripping



Product Information

Analog position sensor MMS 22-A

MMS 22-A

Analog position sensor

Flexible. Reliable. Intuitive.

MMS 22-A analog position sensor

The analog MMS 22-A magnetic sensor is used for monitoring the status of SCHUNK grippers. It detects the approach of a magnet without contact and returns a continuous output signal.

Field of application

Used for monitoring SCHUNK grippers. The analog SCHUNK magnetic switch detects metals without contact and wear, and is resistant to vibration, dust, and humidity. The magnetic switch is installed in a C-slot and therefore does not produce any additional interference contour.

Advantages – Your benefits

C-slot sensor for insertion into the gripper, therefore no interference contour.

Programmable within no time due to the contactless, magnetic teach tool

Stroke measuring ranges adjustable for the analog position monitoring even at long strokes

Integrated electronics allows for flexible cable assembly despite the space-saving outer contour

version with LED display for checking the switching state directly on the sensor

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

Very flexible cable in PUR version for a long service life



Options and special information

5 or 10 V output voltage: The MMS 22-A is available in versions with 5 or 10 V output voltage. The 5 V sensor is optimized for operation with the SCHUNK FPS system. The 10 V sensor, on the other hand, can be directly connected to an analog input, for example a PLC or a separate input card.

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.

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.

Shielding of a cable extension: Shielded cables are recommended if the analog signal is routed via cable extensions. The cable must be shielded on one end.

Application example



The application example shows the analog MMS 22-A position sensor being used on an MPG-plus gripper for small

components.

① MMS 22-A magnetic switch

② MPG-plus 2-finger parallel gripper

③ Top jaw

SCHUNK offers more ...

The following components make the product MMS 22-A even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.



FPS processor



PGN-plus 2-finger parallel gripper



MPG-plus 2-finger parallel gripper

① Additional 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-A

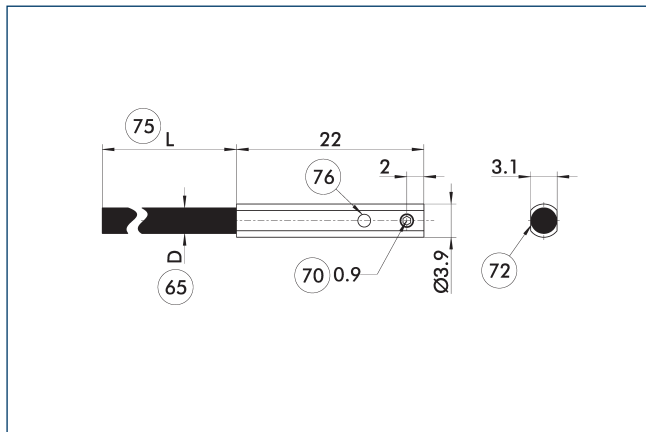
Analog position sensor



Technical data

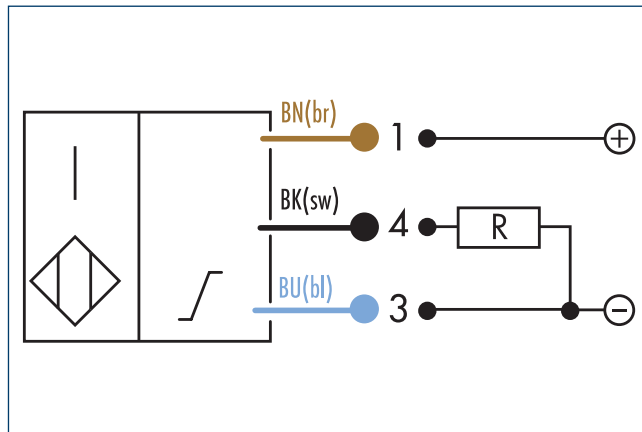
Description		MMS 22-A-05V-M08	MMS 22-A-10V-M08	MMS 22-A-10V-M12
ID		0315805	0315825	0315828
General data				
Measuring principle		magnetic	magnetic	magnetic
Teach function		yes	yes	yes
Voltage output / power output		yes/no	yes/no	yes/no
Type Output voltage value	[V]	0/5	0.3/10	0.3/10
Linearity	[%]	15	15	15
Repeat accuracy R of final value maximum		< 3%	< 3%	< 3%
min./max. ambient temperature	[°C]	5/55	5/55	5/55
LED display in sensor		yes	yes	yes
Response time / typ. Switching time	[ms]	50	50	50
Electrical operating data				
Nominal voltage	[V]	5	24	24
Min. / max. operating voltage	[V]	5/5.5	15/30	15/30
Max. ripple (% of Ue)		<2 % Vss	<2 % Vss	<2 % Vss
Type of voltage		DC	DC	DC
Nominal current	[mA]	10	15	15
Min. load resistance RL	[kΩ]		10	10
Short circuit protection		yes	yes	yes
Protected against polarity reversal		yes	yes	yes
Mechanical operating data				
Housing material		GV-5H (PA), black	GV-5H (PA), black	GV-5H (PA), black
Cable connector/cable end		M8 socket, 3-pin	M8, 3-pin Male Connector	M12 connector, 4-pin
Cable length	[m]	0.3	0.3	0.3
Cable diameter	[mm]	2.4	2.4	2.4
Cable sheath material		PUR	PUR	PUR
Cable shielding		yes	no	yes
Product weight	[kg]	0.01	0.01	0.01
Protection class		3	3	3
Approval / conformity				
CE		yes	yes	yes

MMS 22-A main view

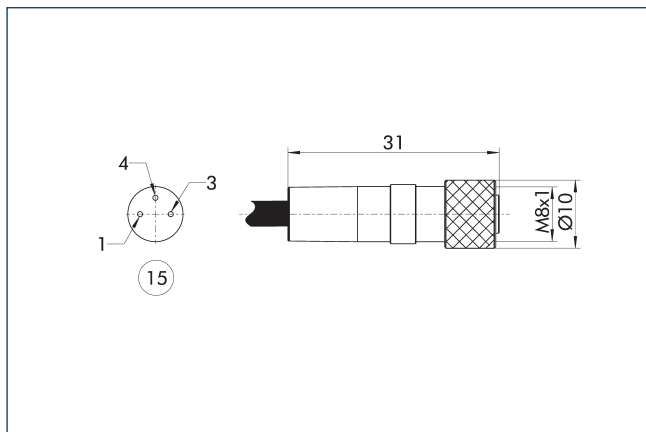


- 65 Cable diameter
- 70 Wrench size
- 72 Active sensor surface
- 75 Cable length
- 76 LED

Wiring diagram analog output

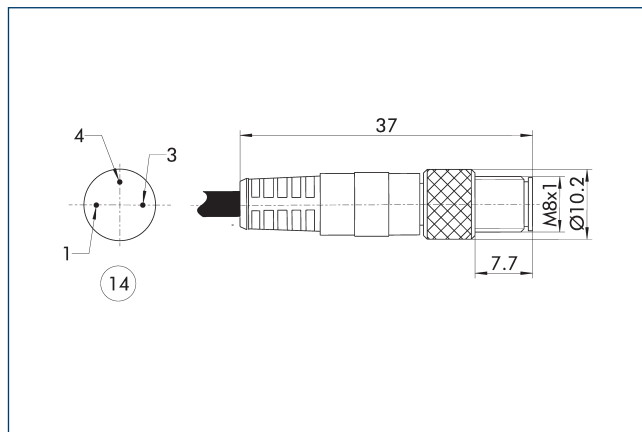


View of M8 socket (3-pin)



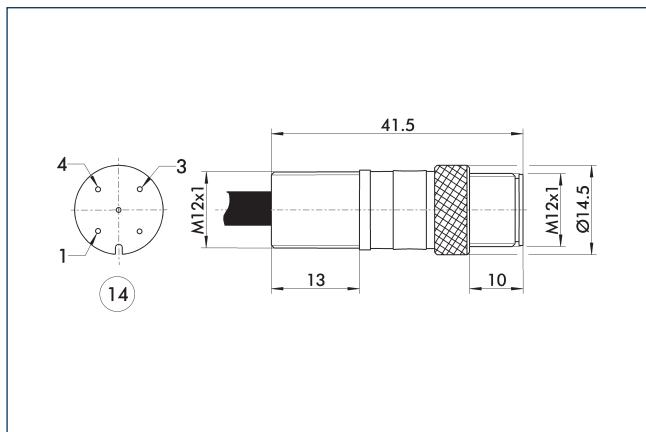
- 15 Socket
- This view shows the plug connector on the cable end of the sensor.

View of M8 connector (3-pin)



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

View of M12 connector (4-pin)

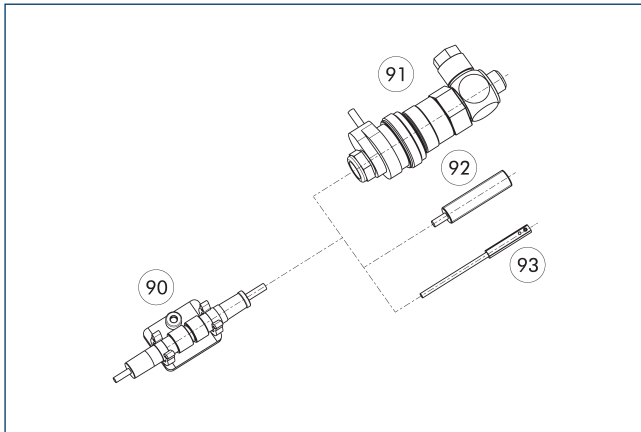


- 14 Connector
- This view shows the plug connector on the cable end of the sensor.

MMS 22-A

Analog position sensor

clip for plug/socket






- 90 CLI plug bracket
- 91 MV micro valve
- 92 IN proximity switch
- 93 MMS magnetic switch

The CLI clip is used for fastening and strain relief for the plug connectors. For example for the sensor and cable extension connection.

Description	ID	
clip for plug/socket		
CLI-M12	0301464	
CLI-M8	0301463	

SCHUNK GmbH & Co. KG
Spann- und Greiftechnik

Bahnhofstr. 106 – 134
D-74348 Lauffen/Neckar
Tel. +49-7133-103-0
Fax +49-7133-103-2239
info@de.schunk.com
www.schunk.com

 www.youtube.com/SCHUNKHQ
 www.twitter.com/SCHUNK_HQ
 www.facebook.com/SCHUNK.HQ



J. Lehmann

Jens Lehmann, German goalkeeper legend, SCHUNK brand ambassador since 2012 for precise gripping and safe holding.
www.gb.schunk.com/Lehmann