



Superior Clamping and Gripping



Product Information

Inductive Proximity Switches IN

Reliable. Non-contact. Easy assembly.

Inductive proximity switches IN

Inductive proximity switches are used to scan the current status of automation components. They are offered by SCHUNK in versions IN and INK. The version IN is directly pluggable or has a molded cable with plug connector. The INK version is suitable for direct wiring. It has a molded cable with an open end.

Field of application

Sensors are used for monitoring gripping and rotary modules, as well as linear modules, and robot accessories. Inductive SCHUNK sensors detect metals without contact, and are resistant to vibration, dust, and water. The sensors are suitable for connection to a digital input module.

Advantages – Your benefits

Mounting with brackets for easy and fast assembly

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

Proximity switches for flush mounting for minimal interfering contours in the application



Options and special information

Functional description: With their oscillator coil, inductive proximity switches produce a high-frequency, alternating magnetic field. This field occurs on the active surface of the sensor. If a metal object enters the field, it draws energy from the magnetic field, thereby reducing the oscillation amplitude. This change is detected, and the sensor switches.

Signal output and switching type: Depending on the size and design of the sensors, they are available with the signal outputs opener and closer, and in the switching modes PNP and NPN. Please contact us for assistance.

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.

Application example



Handling and rotary unit for components with sensor monitoring on the gripping module

① IN sensors

② Rotary Actuator SRU-plus

③ PGN-plus 2-finger parallel gripper

④ KST cable connector

SCHUNK offers more ...

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



2-finger parallel gripper



Rotary unit



Sensor cables



Sensor distributor

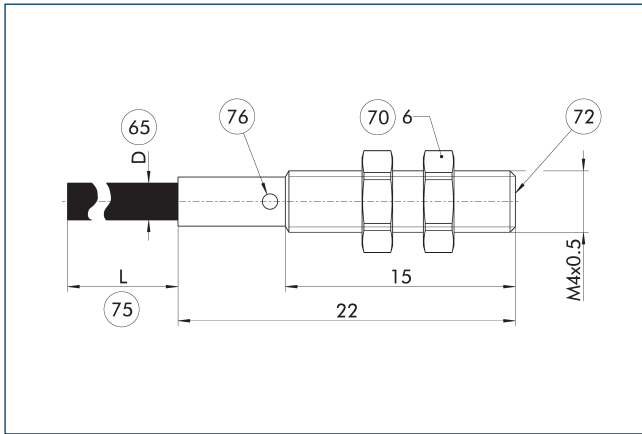
① For more information on these products can be found on the following product pages or at schunk.com. Please contact us: SCHUNK technical hotline +49-7133-103-2696



Technical data

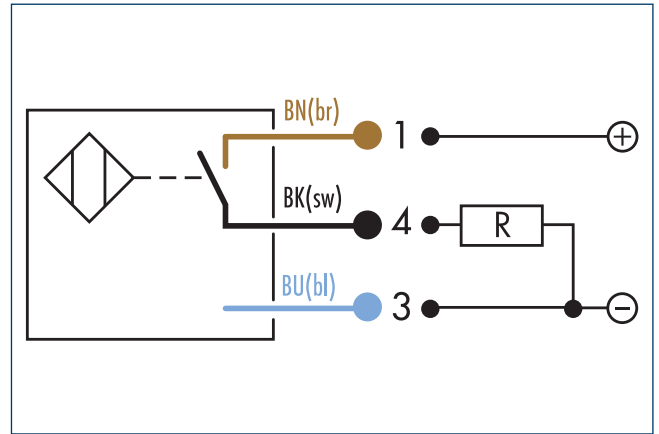
Description		IN 41-S-M8-PNP
ID		1325755
Principle of function		
Measuring principle		inductive
Switching function		Closer
Type of switching		PNP
Number of switching points		1
Teach function		no
General data		
Switching distance	[mm]	0.8
Switching hysteresis from the nominal switching distance		< 15%
Max. switching frequency	[Hz]	3000
Min./max. ambient temperature	[°C]	-25/70
LED display in sensor		yes
Electrical operating data		
Type of voltage		DC
Nominal voltage	[V]	24
Min./max. operating voltage	[V]	10/30
Voltage drop	[V]	2
Max. switching current	[A]	0.1
Short circuit protection		yes
Protected against polarity reversal		yes
Mechanical operating data		
Housing material		stainless steel
Cable connector/cable end		M8, 3-pin Male Connector
Cable length L	[cm]	20
Cable diameter D	[mm]	2.4
Cable design (wire cross section / number of wires)		3x 0.14mm ²
Cable sheath material		PUR
Min. bending radius (dynamic)	[mm]	24
Min. bending radius (static)	[mm]	24
Weight	[g]	7
Protection class IP (sensor, plugged)		67
Protection class		III

Main view

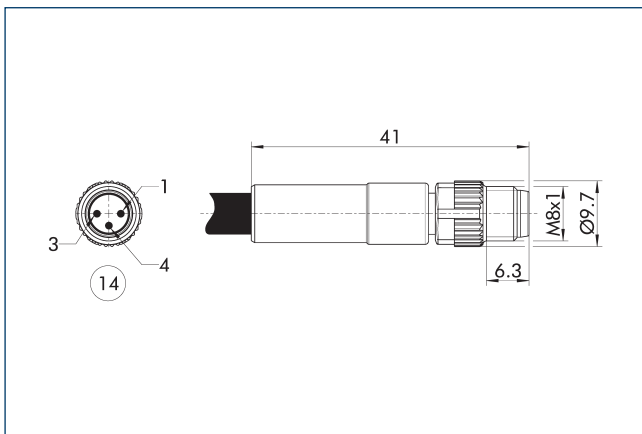


- 65 Cable diameter
- 70 Wrench size
- 72 Active sensor surface
- 75 Cable length
- 76 LED

Wiring diagram closer PNP

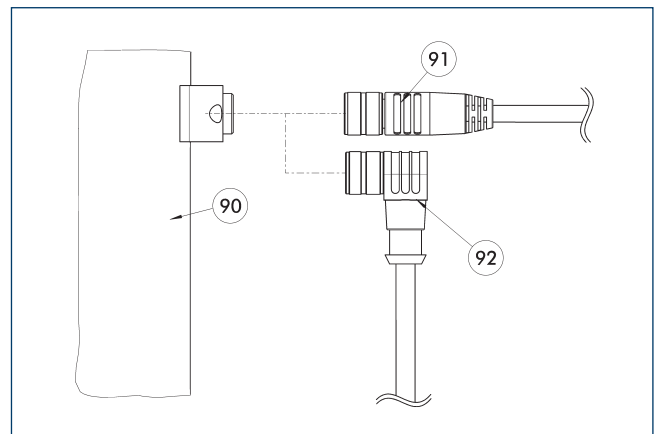


View of M8 connector (3-pin)



- 14 Connector

Connection cables

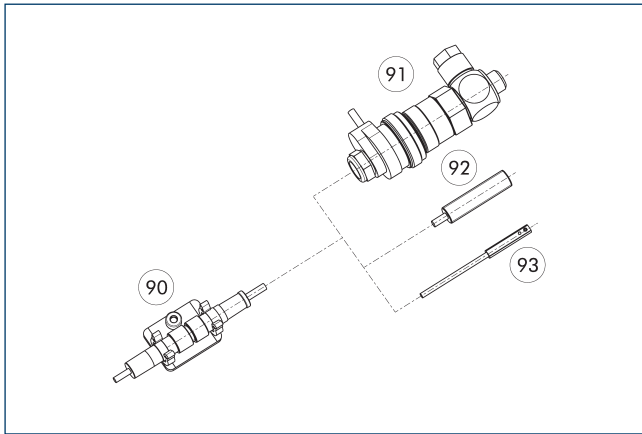


- 90 Electrical connection component
- 91 Cable with straight connector
- 92 Cable with angled connector

Description	ID	Length [m]	Often combined
Connection cables			
KA BG08-L 3P-0300-PNP	0301622	3	●
KA BG08-L 3P-0500-PNP	0301623	5	
KA BW08-L 3P-0300-PNP	0301594	3	
KA BW08-L 3P-0500-PNP	0301502	5	

- ① BG stands for a connection cable with a straight female connector and BW for an angled female connector. SG stands for a connection cable with a straight male connector and SW for an angled male connector.

clip for plug/socket



90 CLI plug bracket

92 IN proximity switch

91 MV micro valve

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-M8	0301463	

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Folgen Sie uns



J. Lehmann

Jens Lehmann, German goalkeeper legend, SCHUNK brand ambassador since 2012 for safe, precise gripping and holding.
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