

# M5 CONNECTOR PROGRAMME



## **SMALL BUT POWERFUL:** THE M5 CONNECTOR

M8 and M12 have long been established sizes on the sensor market. Compared to these, the smallest binder connector, M5, is still in its infancy.

## SMALL CONNECTOR, BIG IMPACT



The advantages of this series are obvious: the size, the weight and the price.

Besides moulded male and female cable connectors, the M5 connector family includes female angled connectors, male receptacles, and male and female panel mount connectors which can be delivered with dip-solder contacts or single wires. Very popular among customers are also connecting cables whose ends are freely configurable, e.g. male cable connector to female cable connector, male angled connector to male angled connector, and a large number of other possible combinations.

The contact arrangements (with three and four contacts) of the M5 series are mutually compatible – unlike the M8 series. For example, it is possible to connect an M5 male connector with three contacts to an M5 female connector with four contacts.

## **PRODUCTION**

The production of the M5 circular connectors, which had been manufactured manually since their introduction in 2002,

was transferred to an automatic processing line in plant 3 in Neckarsulm at the end of 2014. Besides cost savings, this made it possible to react to customer requirements more flexibly. Attention is paid to 'Made in Germany' quality at all times.

## MINIATURISATION

The trend towards miniaturisation is also continuing in the sensor technology sector. Because installation space is precious and expensive, many customers are placing their bets on increasingly small dimensions and connection options in their products. This is exactly where the M5 connector comes into play, because its outside diameter of 6.5 millimetres and its threaded locking system make it very easy to handle. It is also waterproof to IP67.

## **REDUCED WEIGHT**

Due to the increasingly small connections used for the transmission of data and signals, it is an advantage for the service life of the sockets if the hardware connected is on the light side, which is also one of the benefits of the M5 connector. Due to the lower material input, a standard male cable con-



nector with two metres of cable, for example, weighs only 30 grams. And last but not least, this material saving is also reflected in the low price.

## FURTHER DEVELOPMENT

In the binder Engineering department in plant 1 in Neckarsulm, we constantly tinker with and improve the M5 connector. A shielded version is always crucial when the cable needs to be protected against electric and/or magnetic fields, or vice versa, when the environment needs to be protected against these fields. In order to achieve unhindered data transmission with the M5 connector, 360-degree shielding was developed for the straight version, which functions reliably by means of a pressing spring integrated into the connector. Thus, it should be possible to achieve shielding effectiveness values of 60 decibels in the 1-gigahertz range.

## **INDUSTRIES AND APPLICATIONS**

As small as the connector may be, its potential applications are vast and diverse. The M5 connector is not only ideal for use in typical sensor technology but also in automation technology, measuring instrument technology and the leisure industry.

Examples of successful customer applications are ultrasonic sensors, conveyor and storage systems, miniature valves, weather stations, bicycles, sports watches and functional clothing.

www.binder-connector.com

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## M5 CONNECTOR PROGRAMME

- Screw locking
- 3 and 4 contacts
- Degree of protection IP67
- Can be configured on customer's request
- Unshielded and shielded versions

More than standard!



• Screw locking acc. to DIN EN 61076-2-105

Automation Technology 707 series

- 3 and 4 contacts
- Degree of protection IP67
- Moulded versions
- PUR cable

ption	Drawing	Contacts	Cable length, PUR	Unshielded	Shielded
able connector, moulded, M5 x 0,5/moulded, shielded, M5 x 0,5		3 :: 0 14	2 m	79 3101 52 03	79 3121 52 03
		3 x 0,14	5 m	79 3101 55 03	79 3121 525 03
	20.7	3 11 0 35	2 m	79 3101 32 03	_
	30,7 L	3 X U,25	3 x 0,25 5 m	79 3101 35 03	_
	10,7 20	40.14	2 m	79 3107 52 04	79 3127 52 04
	M5 x 0.5	4 x 0.25	79 3107 55 04	79 3127 525 04	
	Ş		79 3107 32 04	_	
			5 m	79 3107 35 04	-
ngled connector, moulded, M5 x 0,5	1	3014	2 m	79 3103 52 03	
		3 x 0,14	5 m	79 3103 55 03	

3 x 0,25

4 x 0,14

4 x 0,25

5 m

2 m

5 m

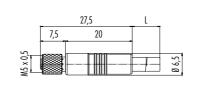
2 m

5 m

Female cable connector, moulded, M5 x 0,5/moulded, shielded, M5 x 0,5



**M5** 



3 x 0,14	2 m	79 3102 52 03	79 3122 52 03
	5 m	79 3102 55 03	79 3122 525 03
3 x 0,25	2 m	79 3102 32 03	-
	5 m	79 3102 35 03	_
4 x 0,14	2 m	79 3108 52 04	79 3128 52 04
	5 m	79 3108 55 04	79 3128 525 04
4 025	2 m	79 3108 32 04	-
4 x 0,25	5 m	79 3108 35 04	-

79 3103 32 03

79 3103 35 03

79 3109 52 04

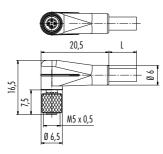
79 3109 55 04

79 3109 32 04

79 3109 35 04

Female angled connector, moulded, M5 x 0,5





3 x 0,14	2 m	79 3104 52 03	
	5 m	79 3104 55 03	
3 x 0,25	2 m	79 3104 32 03	
	5 m	79 3104 35 03	
4 x 0,14	2 m	79 3110 52 04	
	5 m	79 3110 55 04	
4 0 25	2 m	79 3110 32 04	
4 x 0,25	5 m	79 3110 35 04	

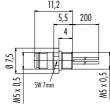
Specifications			
Contacts	3	4	
Wire gauge	0,14 mm² (AWG 26), 0,25 mm² (AWG 24)		
Mechanical operation	> 100 Mating cycles		
Temperature range	− 25 °C /+ 80 °C		
Rated voltage	60 V		
Pollution degree	3		
Rated current (40°C)	1A		
Contact plating	Au (Gold)		
Material of housing	PUR		

More versions and information on www.binder-connector.com

## Automation Technology 707 series

Description	Drawing	Contacts	Ordering-No.	
Male panel mount connector, with single wires		3 x 0,14 09 3105 00 03		
		3 x 0,25	09 3105 01 03	
	11,2	4 x 0,14	09 3111 00 04	
	5,5 200	4 x 0 25	09 3111 01 04	

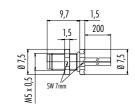




	•	
3 x 0,14	09 3105 00 03	
3 x 0,25	09 3105 01 03	
4 x 0,14	09 3111 00 04	
4 x 0,25	09 3111 01 04	

Male panel mount connector, front fastened, with single wires

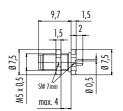




3 x 0,14	09 3105 86 03	
4 x 0.14	09 3111 86 04	

Male panel mount connector, dip-solder

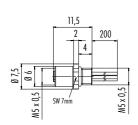




09 3105 81 03 09 3111 81 04

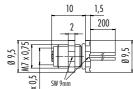
Female panel mount connector, with single wires





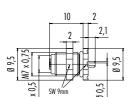
3 x 0,14	09 3106 00 03	
3 x 0,25	09 3106 01 03	
4 x 0,14	09 3112 00 04	
4 x 0,25	09 3112 01 04	

Female panel mount connector, front fastened, with single wires



3 x 0,14 09 3106 86 03 4 x 0,14 09 3112 86 04





SW 9mm						
	SW 9mm					

09 3106 81 03 09 3112 81 04

M5

## Automation Technology 707 series

Description	Drawing	Contacts	Black	
Male recentacle for sensor tubes tube-0 3 75—H7		4	09 3111 71 04	





## Contact arrangements male insert (mating side)

3 contacts

4 contacts





## Contact arrangements female insert (mating side)

Colour of wire, moulded cable and panel mount connectors

2 white

3 blue

4 black

Panel cut out



Description	Drawing	Ordering-No.
M5 Protection cap for female connector		08 2610 000 000





01 5118 001 Hexagonal nut M5 x 0,5







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