

**saris** Sensor/actuator wiring M8 / M12 and valve connectors





**▲ Sales Center** in Bamberg



**▲ Company headquarters** in Bamberg



▲ STOCKO main plant in Wuppertal

# Wieland Jautomate Control (automate Julian) Julian (automate Julian) Ju



automation electronics

#### **ACTIVE WORLDWIDE**

The Wieland Group employs more than 2,000 people all around the globe. With currently 15 locations and subsidiaries, and sales partners in more than 70 countries, Wieland Holding is present in nearly all important key markets worldwide. Always with a clear commitment to the German location where most of the products are still manufactured.

#### The group makes us strong

Wieland Holding is based in Bamberg, Bavaria, and comprises two independently acting subsidiaries: Wieland Electric and STOCKO Contact.

Groundbreaking innovations made Wieland Electric one of the leading suppliers of electrical connection technology. This company, founded in Bamberg in 1910, is the largest subsidiary of Wieland Holding.

STOCKO Contact is based in Wuppertal and joined the Wieland Group in 2001. Stocko has also more than 100 years of company history to its credit and is one of the largest manufacturers of connector systems and crimp contacts.



#### Established in industries

Control cabinet engineering, industrial automation, building system technology – our large product portfolio provides solutions for all kinds of applications.

From innovative interface and network technology to terminal blocks to "safety first" – with modular system solutions and safety components. With Wieland products in your control cabinet, you are always on the safe side.

Energy bus systems for distributed automation or indoor and outdoor field

bus components – Wieland technology can be found everywhere, and in all kinds of applications.

In building system technology, Wieland Electric is the world market leader in pluggable eletrical installation.

There are good reasons why our system solutions can be found in the most spectacular building projects worldwide. When it comes to electronic networking, Wieland leads the way to the "smart home".

#### **Welcome Future**

Wieland Electric is 100 years young, and full of innovative energy. And our commitment for the future is not only to find constantly new system solutions for our customers but also social responsibility.

Environmentally friendly high-tech products, manufactured to the latest production standards, an audited environmental management system and substantial investments in our locations are all part to this concept.

Global commitment and sustainable regional action – Wieland Electric is fit for the future: Contacts are green.





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# The **saris** connector system – extremely flexible connecting

#### The saris connector system

Use of automation technology continues to grow. With the *saris* connector system, we are expanding our product range to include an important component of this technology.

The standardized components of **saris** make it just as suitable for wiring small functional units as it is for installing entire systems. For decentralized field installation between a PLC and sensors or actuators, the **saris** line is the ideal solution. Especially in automation applications, the machinery industry, the packaging industry as well as warehousing and logistics.

Thanks to the standardized connector interfaces, the ability to purchase and use worldwide and over the long term is assured. In combination with the wide variety of components such as various M8/M12 distributor boxes, for instance, **saris** provides a very flexible, time-saving and thus economically interesting system.

The extensive product range contains passive M8 and M12 distributor boxes, preassembled cables with M8 / M12 and valve connection as well as field-wireable connectors. Use of preassembled components virtually eliminates the potential for errors during installation. The robust construction of *saris* components with IP65/67 protection class permits use under harsh conditions.

All standard cables are distinguished by good oilresistance and their high drag chain suitability.

#### Specifically for your requirements

Despite this extensive product range, it is not always possible to satisfy customer requirements with standard products. That is why Wieland Electric offers custom solutions for customers with special requests.



# Industries and applications for **saris**









#### Possible industries:

- Automation technology
- Machine building
- Packaging
- Warehousing and logistics

Our quality promise:

To guarantee our customers flawless quality, all products from Wieland are inspected multiple times and comply with international standards and regulations.

- Checked electrically 100%
- Gold-plated contacts (mating cycles > 100)
- High protection classes of IP65/67 and higher
- Shock- and vibration-proof
- Compliance with RoHS provisions



# Benefits and components of saris



#### **Fault diagnosis**

Integrated LEDs clearly identify and localize any fault that occurs during signal transmission.



#### Interference-free transmission

The shielded cables sure reliable transmission of the signal.



#### **Rugged construction**

The quality of our connecting cables also means that application in harsh environments does not pose a problem.



#### **Secure** connectors

The high protection class of IP65/67 and higher permits use in dusty and humid industrial environments where mechanical stresses may occur, e.g. shock.



#### 100% tested

To ensure a high quality standard, our products are tested electrically before shipment to the customer.



#### Variety

Depending on the application, various versions of the **saris** connector are available. Straight or angled, with or without LED.

#### Competent advice - one phone call suffices

Our technical service will find the appropriate product for every requirement and offers support for every phase of your project. You can reach our support at **+49 951 9324-991** 

Accessories and additional information can be found in our eShop at https://eshop.wieland-electric.com

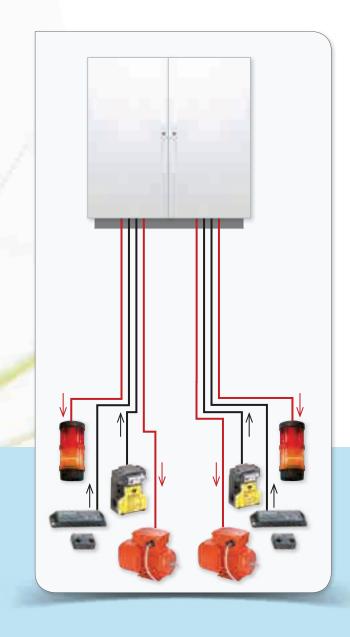
# The unique wiring principle behind saris

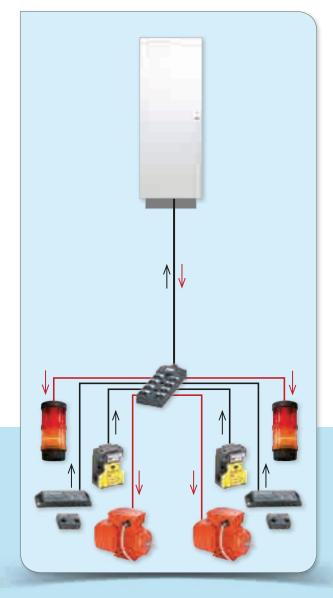
#### **Conventional installation:**

- Fixed installation
- Greater installation effort from having to run many cables
- Increased risk of installation errors
- High effort by plant expansions

#### Plug-in field connection with saris:

- Fast, flexible installation thanks to standardized, preassembled and tested components
- Fewer lines due to the variety of prepared junction boxes
- Higher machine utilization as the result of time-saving installation
- IP65/67 and higher





# 3-pole preassembled cables with M8/M12 termination (A-coded)

M8 straight    Langth   Part No.   Length   P			MALE I	END	
### Part No.   Length   Pa		M8 straight	M12 straight	M12 angle	Free end
Name					
Name			4 3	4 3	
### Agricology   Part No.   Length   Part No.		1 4 3			
Name	M8 straight		1 2	1	
M8 As   M8 A				Length Part No.	
M8 angle	4				
M8 angle	3(0 0)1	1 m M8.K31.1011.0			
1.5 m   M8,K31.1502.0   3 m   M8,K31.0312.0   0.6 m   M2,K31.0342.0   3 m   M8,K31.3002.0   3 m   M8,K31.5002.0   3 m   M8,K31.3002.0   3 m   M8,K31.3002.2   3 m   M2,K32.3004.0   3 m   M2,K32.3005.0   3 m   M2,K32.300	100	2 m M8.K31.2011.0	2 m M2.K31.2041.0		10 m M8.K31.X001.0
M8.K31.0612.0   1 m   M8.K31.0012.0   2 m   M8.K31.002.0   2 m   M8.K31.002.2   3 m   M8.K31.1002.2   3 m   M8.K31.1002.2   3 m   M8.K31.002.2   3 m   M8.K31.002.2   3 m   M8.K31.002.2   2 m   M8.	M8 angle				
M8.K31.0612.0   1 m   M8.K31.0012.0   2 m   M8.K31.002.0   2 m   M8.K31.002.2   3 m   M8.K31.1002.2   3 m   M8.K31.1002.2   3 m   M8.K31.002.2   3 m   M8.K31.002.2   3 m   M8.K31.002.2   2 m   M8.	nd.	0.3 m M8 K31 0312 0	0.3 m M2 K31 0342 0		1.5 m M8 K31 1502 0
M8 angled with LED    10 m   M8.K31.2012.0   2 m   M2.K31.2042.0   10 m   M8.K31.X002.0	2004				
M8 angled with LED    A	3 (0 0)				
M12 straight    M8.K31.0612.2   1 m   M8.K31.1012.2   1 m   M2.K31.1042.2   5 m   M8.K31.5002.2	M8 angled with LED	2 111 1018.131.2012.0	Z III   IVIZ.K31.2042.0		10 m   M8.K31.X002.0
M12 straight    M8.K31.0612.2   1 m   M8.K31.1012.2   1 m   M2.K31.1042.2   5 m   M8.K31.5002.2					
M12 straight    M8.K31.1012.2   1 m   M2.K31.1042.2   2 m   M2.K31.2042.2   10 m   M8.K31.5002.2		0.3 m M8.K31.0312.2	0.3 m M2.K31.0342.2		1.5 m M8.K31.1502.2
M12 straight    Ma.K31.2012.2   2 m   M2.K31.2042.2   10 m   M8.K31.X002.2	3(00)1				
M12 straight  3					
M12 angle    Ma.K31.0614.0	M12 straight	2111 1010.101.2012.2	2 111 1012.101.2042.2		10 111 1010.101.7002.2
M12 angle  M12 angle  M13 m M8.K31.0614.0 0.6 m M2.K32.0644.0 5 m M2.K32.3004.0 5 m M2.K32.5004.0 1 m M8.K31.2014.0 2 m M2.K32.2044.0 10 m M2.K32.X004.0 10 m M2.K32.X005.0					
M12 angle  M12 angle  M13	3 4				
M12 angle  M12 angle  3 0 0 0.6 m M8.K31.0315.0 0.6 m M2.K32.0345.0 1.5 m M2.K32.1505.0 0.6 m M8.K31.0615.0 0.6 m M2.K32.0645.0 3 m M2.K32.3005.0 0.6 m M3.K31.015.0 1 m M3.K32.1045.0 5 m M3.K32.5005.0 1 m M3.K31.015.0 2 m M3.K32.2045.0 10 m M3.K32.X005.0 10 m					
3					
3	M12 angle				
0 0 0.6 m M8.K31.0615.0 0.6 m M2.K32.0645.0 3 m M2.K32.3005.0 1 m M8.K31.1015.0 1 m M2.K32.1045.0 5 m M2.K32.5005.0 2 m M2.K32.2045.0 10 m M2.K32.X005.0					
1 m M8.K31.1015.0 1 m M2.K32.1045.0 5 m M2.K32.5005.0 2 m M2.K32.2045.0 10 m M2.K32.X005.0	3 4				
M12 straight with 2 LEDs	1		2 m M2.K32.2045.0		10 m M2.K32.X005.0
	M12 straight with 2 LED	)s			
34 1.5 m M2.K32.1504.2	3 _ 4				1.5 m M2.K32.1504.2
( o o ) 3 m M2.K32.3004.2					3 m M2.K32.3004.2
5 m M2.K32.5004.2 10 m M2.K32.X004.2	/1				
M12 angled with 2 LEDs	M12 angled with 2 LEDs	S			10 111 1012.1004.2
3	3 4				
0 0 0.6 m M8.K31.0615.2 0.6 m M2.K32.0645.2 3 m M2.K32.3005.2					
0 1 m M8.K31.1015.2 1 m M2.K32.1045.2 5 m M2.K32.5005.2 2 m M8.K31.2015.2 2 m M2.K32.2045.2 10 m M2.K32.X005.2	01				
Free end	Free end				
1.5 m M8.K31.1510.0 1.5 m M2.K32.1540.0 1.5 m M2.K32.1550.0					
3 m M8.K31.3010.0 3 m M2.K32.3040.0 3 m M2.K32.3050.0 5 m M8.K31.5010.0 5 m M2.K32.5040.0 5 m M2.K32.5050.0	1				
10 m M8.K31.X010.0 10 m M2.K32.X040.0 10 m M2.K32.X050.0					

Other variants upon request. Please note minimum order quantities in this regard.

# **Technical data**

	M8	M8 with LED	M12	M12 with LED		
Coding	-	-	А	А		
Rated voltage (V)	60	24	250	24		
Rated current (A)	4	4	4	4		
Continuity resistance	≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ		
Contact material	CuSn	CuSn	CuSn	CuSn		
Contact surface material	Ni / Au	Ni / Au	Ni / Au	Ni / Au		
Body material	TPU*	TPU*	TPU*	TPU*		
Connectors according to	IEC 61076-2-104	IEC 61076-2-104	IEC 61076-2-101	IEC 61076-2-101		
Material cable		PUR	/PUR			
Cross-section of cable (mm²)	M8-M8/M8	M8-M8/M8-M12: 0.25 M12-M12: 0.34				
Drag chain characteristics		minimum 4 mio	. bending cycles			
Sheath strip length free end		50 mm +5/-10 mm				
Approvals	c UL us	e UL us	e UL us	c UL us		
Protection type	IP66/67/68	IP66/67/68	IP66/67/68	IP66/67/68		
Temperature range	-25 °C +90 °C	-25 °C +90 °C	-25 °C +90 °C	-25 °C +90 °C		

<sup>\*</sup> low-flammable, self-extinguishing

# **Contact assignment**

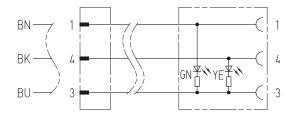
color coding	Pin assignment
BN	1
BK	4
BU	3

# **Circuit diagrams**

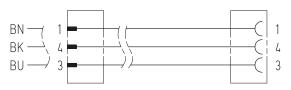
#### Male - free end



#### Free end / male - female with 2 LEDs



#### Free end / male - female



# 4-pole preassembled cables with M8/M12 termination (A-coded)

			MALE	END	
		M8 straight	M12 straight	M12 angle	Free end
				8-1	
		2 4	4 • • 3	4 • • 3	Total State of the
					1
M8 straight		Length Part No.	Length Part No.	Length Part No.	Length Part No.
A.		0.3 m M8.K41.0311.0	0.3 m M2.K41.0341.0	Longin raitito.	1.5 m M8.K41.1501.0
4	4002	0.6 m M8.K41.0611.0	0.6 m M2.K41.0641.0		3 m M8.K41.3001.0
67	3 0 1	1 m M8.K41.1011.0	1 m M2.K41.1041.0		5 m M8.K41.5001.0
9		2 m M8.K41.2011.0	2 m M2.K41.2041.0		10 m M8.K41.X001.0
M8 angle					
ad	1 2				1.5 m M8.K41.1502.0
	3 0 1				3 m M8.K41.3002.0
	3 0 1				5 m M8.K41.5002.0 10 m M8.K41.X002.0
M12 straigh	t				10 111 1010.141.7002.0
-					
200	3 0 0 4		0.3 m M2.K42.0344.0	0.3 m M2.K42.0354.0	1.5 m M2.K42.1504.0
			0.6 m M2.K42.0644.0 1 m M2.K42.1044.0	0.6 m M2.K42.0654.0 1 m M2.K42.1054.0	3 m M2.K42.3004.0 5 m M2.K42.5004.0
9	2 1		2 m M2.K42.2044.0	2 m M2.K42.2054.0	10 m M2.K42.X004.0
M12 angle					
Pal	34		0.3 m M2.K42.0345.0		1.5 m M2.K42.1505.0
	( 0 0 )		0.6 m M2.K42.0645.0		3 m M2.K42.3005.0
	2001		1 m M2.K42.1045.0 2 m M2.K42.2045.0		5 m M2.K42.5005.0 10 m M2.K42.X005.0
M12 straigh	t with 2 LEDs	3	2111 1012.1042.2040.0		10 III WIZ.IX42.7X000.0
	_				1.5 140 1/40 1504 0
-30	3 0 0 4				1.5 m M2.K42.1504.2 3 m M2.K42.3004.2
<b>B</b>					5 m M2.K42.5004.2
•	2 ~ 1				10 m M2.K42.X004.2
M12 angle v	vith 3 LEDs				
	34		0.3 m M2.K42.0345.3		1.5 m M2.K42.1505.3
	( ° ° )		0.6 m M2.K42.0645.3		3 m M2.K42.3005.3
-	2001		1 m M2.K42.1045.3 2 m M2.K42.2045.3		5 m M2.K42.5005.3 10 m M2.K42.X005.3
Free end			Z 111 W.Z.N. 12.2040.0		10 III 1012.1010.0
		1.5 m MO V41 1510.0	1.5 m M2 K42 1540 0	1.5 m M2.K42.1550.0	
100		1.5 m M8.K41.1510.0 3 m M8.K41.3010.0	1.5 m M2.K42.1540.0 3 m M2.K42.3040.0	3 m M2.K42.3050.0	
4.97					
18		5 m M8.K41.5010.0	5 m M2.K42.5040.0	5 m M2.K42.5050.0	

Other variants upon request. Please note minimum order quantities in this regard.

## **Technical data**

	M8	M8 with LED	M12	M12 with LED
Coding	-	-	А	А
Rated voltage (V)	30	24	250	24
Rated current (A)	4	4	4	4
Continuity resistance	≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ
Contact material	CuSn	CuSn	CuSn	CuSn
Contact surface material	Ni / Au	Ni / Au	Ni / Au	Ni / Au
Body material	TPU*	TPU*	TPU*	TPU*
Connectors according to	IEC 61076-2-104	IEC 61076-2-104	IEC 61076-2-101	IEC 61076-2-101
Material cable		PUR	/PUR	
Cross-section of cable (mm²)	M8-M8/M8	B-M12: 0.25	M12-M	12: 0.34
Drag chain characteristics		minimum 4 mio	. bending cycles	
Sheath strip length free end		50 mm +	5/-10 mm	
Approvals	c UL vs	€ UL us	€ UL us	c UL us
Protection type	IP65/67/68	IP65/67/68	IP65/67/68	IP65/67/68
Temperature range	-25 °C +90 °C	-25 °C +90 °C	-25 °C +90 °C	-25 °C +90 °C

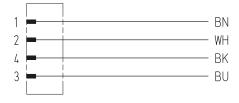
<sup>\*</sup> low-flammable, self-extinguishing

# **Contact assignment**

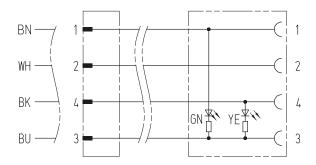
color coding		Pin assignment
BN		1
WH		2
BK		4
BU		3

# **Circuit diagrams**

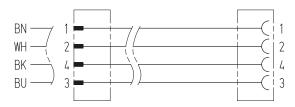
#### Male - Free end



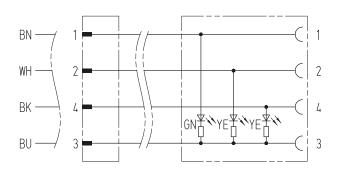
#### Free end / male - female with 2 LEDs



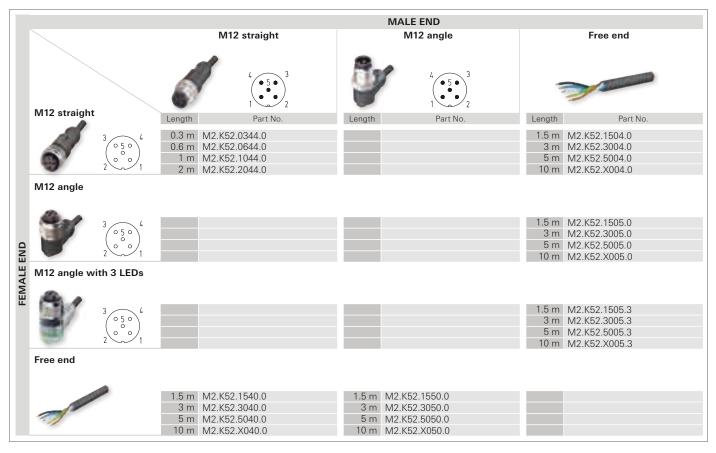
#### Free end / male - female



#### Free end / male - female with 3 LEDs



# 5-pole preassembled cables with M12 termination (A-coded)



Other variants upon request. Please note minimum order quantities in this regard.

## **Technical data**

	M12	M12 with LED	
Coding	А	А	
Rated voltage (V)	60	24	
Rated current (A)	4	4	
Continuity resistance	≤ 5 mΩ	≤ 5 mΩ	
Contact material	CuSn	CuSn	
Contact surface material	Ni / Au	Ni / Au	
Body material	TPU*	TPU*	
Connectors according to	IEC 61076-2-101	IEC 61076-2-101	
Material cable	PUR/PUR		
Cross-section of cable (mm²)	0.34	0.34	
Drag chain characteristics	minimum 4 mio	bending cycles	
Sheath strip length free end	50 mm +	5/-10 mm	
Approvals	c UL) us	c UL) us	
Protection type	IP65/67/68	IP65/67/68	
Temperature range	-25 °C +90 °C	-25 °C +90 °C	

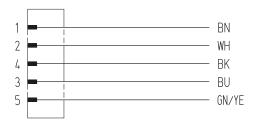
<sup>\*</sup> low-flammable, self-extinguishing

# **Contact assignment**

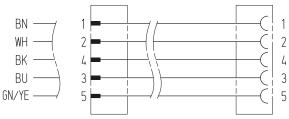
color coding	Pin assignment
3N	1
NΗ	2
3K	4
3U	3
GNYE	5

# **Circuit diagrams**

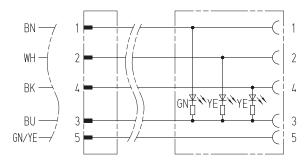
#### Male - Free end



#### Free end / male - female



#### Free end / male - female mit 3 LED's

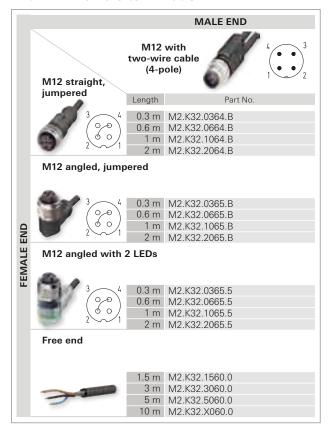


## M12 connector with two-wire cable (A-coded)

#### with M8 female termination



#### with M12 female termination



## **Technical data**

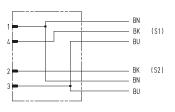
	M8	M8 with LED	M12	M12 with LED	
Coding	-	-	А	А	
Rated voltage (V)	60	24	250	24	
Rated current (A)	4	4	4	4	
Continuity resistance	≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ	
Contact material	CuSn	CuSn	CuSn	CuSn	
Contact surface material	Ni / Au	Ni / Au	Ni / Au	Ni / Au	
Body material	TPU*	TPU*	TPU*	TPU*	
Connectors according to	IEC 61076-2-104	IEC 61076-2-104	IEC 61076-2-101	IEC 61076-2-101	
Material cable		PUR	/PUR		
Cross-section of cable (mm²)	M8-M8/M	8-M12: 0.25	M12-M	12: 0.34	
Drag chain characteristics		minimum 4 mio	. bending cycles		
Sheath strip length free end		50 mm +	5/-10 mm		
Approvals	c UL) us	€ UL us	c UL) us	c (UL) us	
Protection type	IP66/67/68	IP66/67/68	IP66/67/68	IP66/67/68	
Temperature range	-25 °C +90 °C	-25 °C +90 °C	-25 °C +90 °C	-25 °C +90 °C	

<sup>\*</sup> low-flammable, self-extinguishing

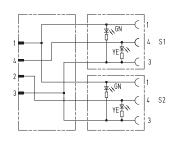
Other variants upon request. Please note minimum order quantities in this regard.

# **Circuit diagrams**

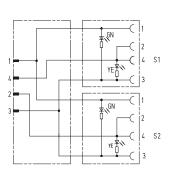
Y-male - 2 x free end



Y-male - 2 x M8 female (2 LEDs)

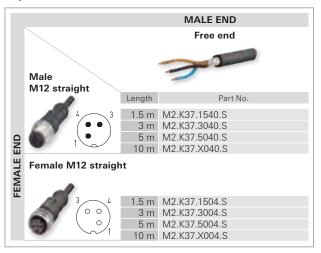


Y-male - 2 x M12 female, jumpered (2 LEDs)



## M12 connector with shielded cable (A-coded)

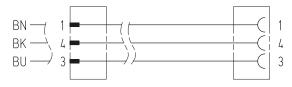
#### 3-pole



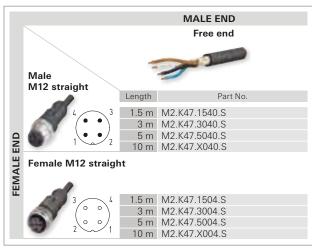
#### Male - free end



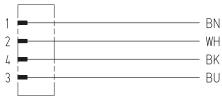
#### Free end / male - female



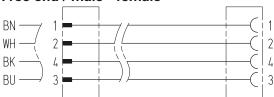
#### 4-pole



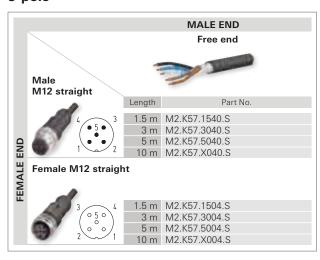
#### Male - free end



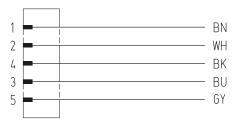
#### Free end / male - female



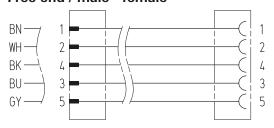
#### 5-pole



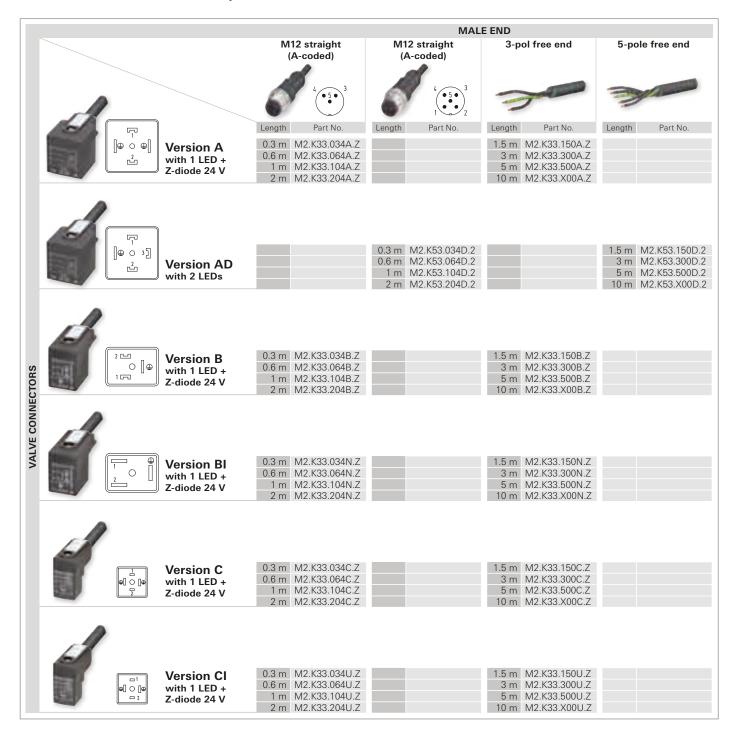
#### Male - free end



#### Free end / male - female



### Valve connectors, assembled



# **Technical data**

	Version A	Version AD**	Version B	Version BI	Version C	Version CI
Rated voltage (V)	24	24	24	24	24	24
Rated current (A)	4	4	4	4	4	4
Continuity resistance	≤ 5 mΩ					
M12 contact material	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn
Valve connector contact material	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn
M12 contact surface material	Ni/Au	Ni/Au	Ni/Au	Ni/Au	Ni/Au	Ni/Au
Valve connector contacts surface material	Sn	Sn	Sn	Sn	Sn	Sn
M12 body material	TPU*	TPU*	TPU*	TPU*	TPU*	TPU*
valve connector case material	TPU*	TPU*	TPU*	TPU*	TPU*	TPU*
Connectors M12 according to	IEC 61076-2-101					
Valve connector to	EN 175301-803	-	EN 175301-803	-	EN 175301-803	-
Material cable						
Cross-section of cable (mm²)			0.	.5		
Number of poles	3	5	3	3	3	3
Approvals						
Protection type	IP 65/67					
Temperature range male	-25 °C +90 °C					
Temperature range Valve connector	-20 °C +85 °C	-25 °C +85 °C	-20 °C +85 °C			

<sup>\*</sup> low-flammable, self-extinguishing

# **Contact assignment**

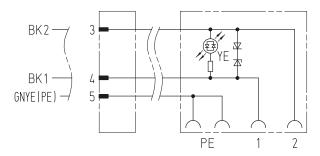
Pin assignment valve connector	Pin assignment M12 connector
2	3
1	4
PE	5

#### **Version AD**

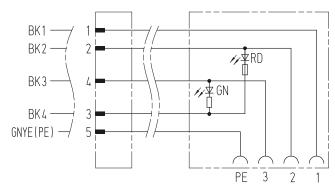
color coding	Pin assignment valve connector	Pin assignment M12 connector
BK1	1	1
BK2	2	2
BK3	3	4
BK4	jumpered on pole 2	3
GNYE	PE	5

# **Circuit diagrams**

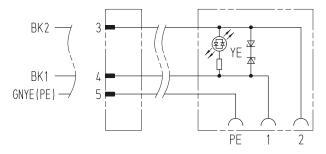
#### Version A, C, CI



#### **Version AD**



#### Version B, BI



<sup>\*\*</sup> for pressure switches

# M8 field-wireable connector with IDC termination

Type

M8 IDC termination

Male, straight Female, straight

2 1 -		71:	71	
3-pole		M8 IDC termination	0.08 mm <sup>2</sup> - 0.25 mm <sup>2</sup>	
	4	Male, straight		M8.F3S.0003.0
		Female, straight		M8.F3B.0003.0
1(• •		•)3		
		M8 IDC termination	0.25 mm <sup>2</sup> - 0.5 mm <sup>2</sup>	
	L	Male, straight		M8.F3S.0103.0
	3(000			M8.F3B.0103.0
0,5				
		Туре	Тур	Part No.
4-pole		M8 IDC termination	0.08 mm <sup>2</sup> - 0.25 mm <sup>2</sup>	
	2 ~	Male, straight		M8.F4S.0003.0
		Female, straight		M8.F4B.0003.0

0.25 mm<sup>2</sup> - 0.5 mm<sup>2</sup>

M8.F4S.0103.0

M8.F4B.0103.0

M8 connector to	IEC 610	IEC 61076-2-104			
Pollution degree		3			
Protection type	IP6	5/67			
Connecting type	IDC terr	mination			
Cable diameter	2.5 mm 5 i	mm ± 0.2 mm			
Approvals	» <i>iIP</i> 3.				
Electrical data	3-pole	4-pole			
Rated voltage	60 V	30 V			
Rated current	4	A			
Continuity resistance	≤ 5	mΩ			
Insulation resistance	≥ 10	0 ΜΩ			
Material data					
Contact material / Contact surface material	CuSn / Ni / AU				
Material contact carrier	TPU GF				
Flammability class to UL94		IB .			
Temperature range	-25 °C	-25 °C +80 °C			

# M12 field-wireable connector with IDC termination (A-coded)

4-pole			Туре	Тур	Part No.
4-boie	(C)		M12 IDC termination	0.14 mm <sup>2</sup> - 0.34 mm <sup>2</sup>	
		4 3	Male, straight		M2.F4S.0003.0
	45000	*(• •)*	Female, straight		M2.F4B.0003.0
	2	1 2			
			M12 IDC termination	0.34 mm <sup>2</sup> - 0.75 mm <sup>2</sup>	
			Male, straight		M2.F4S.0103.0
	CONT.	3 0 0 4	Female, straight		M2.F4B.0103.0
		2 0 1			

4 pala/E pala	Туре	Тур	Part No.
4-pole/5-pole	M12 IDC termination 4-pole	0.14 mm <sup>2</sup> - 0.75 mm <sup>2</sup>	
shielded	Male, straight, shielded		M2.F4S.0201.S
	Female, straight, shielded		M2.F4B.0201.S
4 5 6 3	M12 IDC termination 5-pole	0.14 mm² - 0.75 mm²	
	Male, straight, shielded	0.14 11111 - 0.75 11111	M2.F5S.0201.S
	Female, straight, shielded		M2.F5B.0201.S
3 0 5 0 0 0 0 0 0 1	Tomalo, straight, omored		WER OBJECTION

	0.14 mm <sup>2</sup> 0.34 mm <sup>2</sup>	0.34 mm <sup>2</sup> 0.75 mm <sup>2</sup>	
M12 connector to	IEC 6	61076-2-101	
Pollution degree		3	
Protection type		IP65/67	
Connecting type	IDC	termination	
Cable diameter	3.5 mm 6 mm	4 mm 8 mm	
Coding	A -	- Standard	
Approvals	:####		
Electrical data			
Rated voltage	125 V	250 V	
Rated current		4 A	
Continuity resistance		$\leq 5 \text{ m}\Omega$	
Insulation resistance	≥	: 100 MΩ	
Material			
Contact material / Contact surface material	CuSn / Ni / AU		
Material contact carrier	TPU		
Flammability class to UL94	V0		
Temperature range Connector/bushing	-25 °	C +80 °C	

# M8 distributor boxes

# with main distribution cable (PU/PVC)



Type		Part No.		
M8 distributor boxes with main distribution cable				
Slots	Length			
4	5 m	M8.D34.L513.P		
4	10 m	M8.D34.LX13.P		
6	5 m	M8.D36.L513.P		
6	10 m	M8.D36.LX13.P		
8	5 m	M8.D38.L513.P		
8	10 m	M8.D38.LX13.P		
10	5 m	M8.D3X.L513.P		
10	10 m	M8.D3X.LX13.P		

#### with M12 connection



M8 distributor boxes with M12 connection				
Slots				
4		M8.D34.M123.P		
6		M8.D36.M123.P		

#### with M16 connection



M8 distributor boxes with M16 connection					
Slots					
4	M8.D34.M163.P				
6	M8.D36.M163.P				
8	M8.D38.M163.P				
10	M8.D3X.M163.P				

	with main distribution cable	M12, vertical	M16, vertical
Protection class to IEC 60529 / EN 60529		IP65/67	
M8 connector to		IEC 61076-2-104	
Material cable		PUR/PVC	
Status display		with LED	
Signal type		pnp	
Approvals		c <b>FL</b> ius	
Electrical data			
Rated current per I/O signal		2 A	
Rated current per slot		2 A	
Rated current, overall	6 A	4 A	6 A
Rated voltage		24 V DC	
Dimensions			
Width x Height (mm)	30 x 22	30 x 27	30 x 26
_ength (4-/6-/8-/10 slots) (mm)	102 / 122 / 141 / 161	93 / 113 / - / -	93 / 113 / 132 / 152
Temperature range			
Distributor bo	-30 °C +80 °C		
Main distribution cable, fixed installation	-40 °C +90 °C -		-
Main distribution cable, movable installation	-5 °C +80 °C	-	-

# M12 distributor boxes (A-coded)

#### with main distribution cable



Туре			Part No.
singly populated			
Slots	Length	LED	
4	5 m	no	M2.D44.L510.0
4	10 m	no	M2.D44.LX10.0
4	5 m	yes	M2.D44.L510.P
4	10 m	yes	M2.D44.LX10.P
8	5 m	no	M2.D48.L510.0
8	10 m	no	M2.D48.LX10.0
8	5 m	yes	M2.D48.L510.P
8	10 m	yes	M2.D48.LX10.P
doubly populated			
Slots	Length	LED	
4	5 m	no	M2.D54.L520.0
4	10 m	no	M2.D54.LX20.0
4	5 m	yes	M2.D54.L520.P
4	10 m	yes	M2.D54.LX20.P
8	5 m	no	M2.D58.L520.0
8	10 m	no	M2.D58.LX20.0
8	5 m	yes	M2.D58.L520.P
8	10 m	yes	M2.D58.LX20.P

# with connector hood Threaded connection



Type		Part No.
singly populated		
Slots	LED	
4	no	M2.D44.S030.0
4	yes	M2.D44.S030.P
8	no	M2.D48.S030.0
8	yes	M2.D48.S030.P
doubly populated		
Slots	LED	
4	no	M2.D54.S040.0
4	yes	M2.D54.S040.P
8	no	M2.D58.S040.0
8	yes	M2.D58.S040.P

suitable for cables with outer diameter 7 – 12 mm

	with main distribution cable	plug-in threaded connection, horizontal	
Protection class to IEC 60529 / EN 60529	IP65/67		
M12 connector to	IEC 61076-2-101		
Material cable	PUR/PVC		
Status display	with LED / without LED		
Signal type	pnp (with LED) / universal (without LED)		
Approvals	:: <i>IR</i> :		
Electrical data			
Rated current per I/O signal	2 A		
Rated current per slot	4 A		
Rated current, overall	12 A	10 A	
Rated voltage	24 V DC (with LED) / 120 V (without LED)		
Dimensions			
Width x Height (mm)	54 x 23	54 x 43	
Length (4-/6-/8-/10 slots) (mm)	117 / 123 / 149 / -		
Temperature range			
Distributor bo	-25 °C +80 °C		
Main distribution cable, fixed installation	-40 °C +90 °C	-	
Main distribution cable, movable installation	-5 °C +80 °C	_	

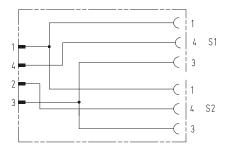
# M8/M12 Y-splitter (A-coded)

Y-splitter M8 /	M12	Туре	Тур	Part No.
3-pole				
	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	M8 Y-splitter M8 male on 2x M8 female	4-/ 3-pole	M8.D4Y.0403.N
00	1 • 3 3 0 0 0 1	M8 Y-splitter M8 male on 2x M8 female	3-pole parallel	M8.D3Y.0003.0
4-pole + PE				
	4 5 • 3 3 0 5 ° 4 0 0 0 1	M12 Y-splitter unjumpered M12 male on 2x M12 female	4-pole + PE	M2.D5Y.0403.N
9	4 • 5 • 3 3 0 0 4 0 5 0 1	Pins 2 and 4 jumpered M12 male on 2x M12 female	4-pole + PE	M2.D5Y.0403.B
	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	M12 Y-splitter M12 male on 2x M12 female	4-pole + PE parallel	M2.D5Y.0003.0

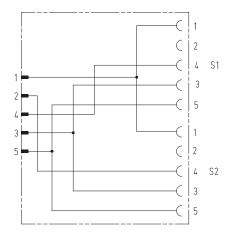
Round M8 connector to:	IEC 61076-2-104	
Round M12 connector to:	IEC 61076-2-101	
Pollution degree	3	
Protection type	IP65/67	
Approvals	<i>uIR</i> :	
Electrical data		
Rated voltage	60 V	
Rated current	4 A	
Continuity resistance	≤ 5 mΩ	
Material data		
Contact material	CuZn	
Contact surface material	Ni/Au	
Flammability class to UL94	НВ	
Temperature range Connector/bushing	-25 °C +90 °C	

# **Circuit diagrams**

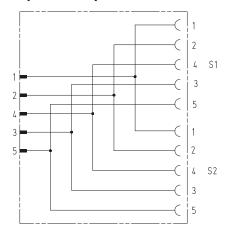
#### 4-/ 3-pole



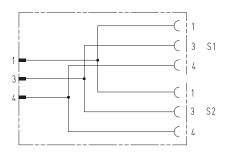
#### 4-pole + PE/unjumpered



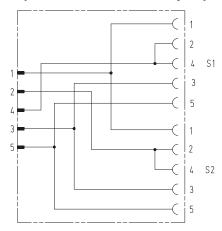
#### 4-pole + PE parallel



#### 3-pole parallel



#### 4-pole + PE/Pins 2 and 4 jumpered



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  - Power distribution system with flat cables
  - Distribution systems
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- Overvoltage protection

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