

# Connection cable

## V1-G-E8-BK5M-PUR-R1-V1-G

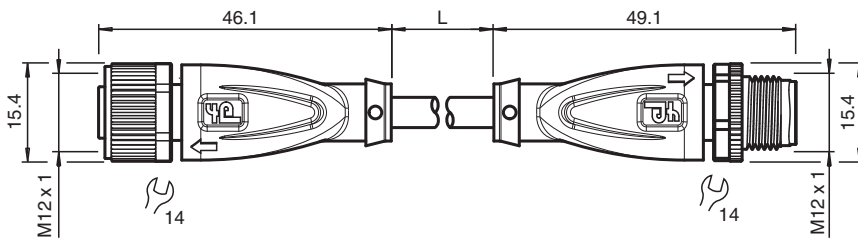


- Highly flexible - suitable for robotics
- Built-in LED, as operating and function indicator
- Suitable for drag chains and abrasion resistant
- Suitable for robotic applications / torsion resistant
- Degree of protection IP68 / IP69
- Free of paint wetting interfering substances
- Resistant to microbes and hydrolysis
- Oil resistant
- Resistant to salt water
- UL listed for USA and Canada
- Halogen-free
- Specific design protects against loosening and inaccurate installation

Cordset M12 socket straight A-coded LED 4-pin to M12 plug straight A-coded 4-pin, PUR cable black, UL approved, drag chain suitable, torsion resistant, oil and salt water resistant, robotics



### Dimensions



### Technical Data

#### General specifications

<b>Connector 1</b>		
Connection		socket
Construction type		M12
Style		straight
Locking		screw connection
Number of pins		4
Coding		A-coded
<b>Connector 2</b>		
Connection		plug
Construction type		M12
Style		straight
Locking		screw connection
Number of pins		4
Coding		A-coded
<b>Indicators/operating means</b>		
LED green		Operating display
LED yellow		Functional display pin 4
LED red		Functional display pin 2
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	max. 24 V DC -20 % / +25 %

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## Technical Data

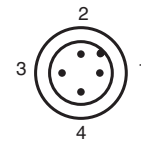
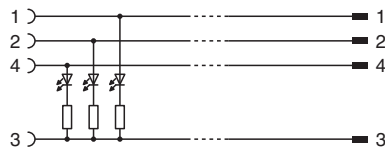
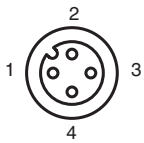
Operating current	I <sub>B</sub>	max. 4 A
<b>Conformity</b>		
Degree of protection		EN 60529
Plug connection		connector M12 x 1 : IEC 61076-2-101
Flammability		UL 758 / 1581
Halogen-free		DIN VDE 0472-815 DIN EN 50267-2-1
Microbial resistance		DIN EN 50525-2-21 / DIN VDE 0282-10
Hydrolysis resistance		DIN EN 50525-2-21
Oil resistance		DIN EN 60811-2-1
<b>Approvals and certificates</b>		
UL approval		AWM STYLE 20549 80 °C 300V AWM I A/B 80 °C 300V FT2 (cable)
UL File Number		E231213
<b>Ambient conditions</b>		
Ambient temperature		
Plug connector		-40 ... 90 °C (-40 ... 194 °F)
Cable, fixed		-40 ... 80 °C (-40 ... 176 °F)
Cable, flexing		-25 ... 80 °C (-13 ... 176 °F)
Pollution degree		3
<b>Mechanical specifications</b>		
Plug connector		
Tightening torque		0.6 Nm
Loosening protection		available
Tool installation		straight knurling and hexagon nut SW = 14 mm
Mating cycles		min. 100
Degree of protection		IP68 / IP69
Cable		according to IEC/EN 60228 (DIN VDE 0295) class 6
Sheath diameter		4.3 mm
Bending radius		> 10 x cable diameter, moving > 5 x cable diameter, fixed
Sheath stripping force		max. 50 N / 300 mm
Sheath color		black (similar to RAL 7021)
Number of cores		4
Core cross section		0.34 mm <sup>2</sup>
Cores color		Core 1: brown Core 2: white Core 3: blue Core 4: black
Core construction		42 x 0.1 mm Ø
Length	L	5 m
Cable code		Li 9Y 11YM 4 x 0.34
<b>Drag chain suitability</b>		
Drag chain cycles		min. 10000000
Motion velocity		max. 3 m/s
Traverse distance		max. 10 m
Acceleration		max. 10 m/s <sup>2</sup>
Torsion cycles		min. 10000000
Torsional stress		± 360 °/m
<b>Material</b>		
PWIS free		yes
Halogen-free		yes
<b>Plug connector</b>		
Screw connection		Zinc diecast, nickel-plated
Body		TPU, transparent/black
Seal		FKM

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## Technical Data

Contact surface	gold plated (Au)
Flammability	V-2
Cable	
Sheathing	PUR based on polyether
Core insulation	PP
Salt water resistance	yes
Oil resistance	yes
Microbial resistance	yes
Hydrolysis resistance	yes
Flammability	FT2

## Connection



## Accessories

	<b>MH V1-SCREWDRIVER</b>	Torque screwdriver (0.6 Nm)
	<b>MH V1-BIT M12</b>	plug-in cap M12
	<b>V1/V3-LABELHOLDER</b>	Label holder
	<b>V1/V3-LABEL</b>	Label plate
	<b>MH V1-Holder</b>	Modular universal holder for M12 connectors
	<b>V1-CLIP</b>	Unlocking protector for M12 connector
	<b>V1-MARKING-RING-COLOR</b>	Marking rings for M12 connectors, various colors

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