



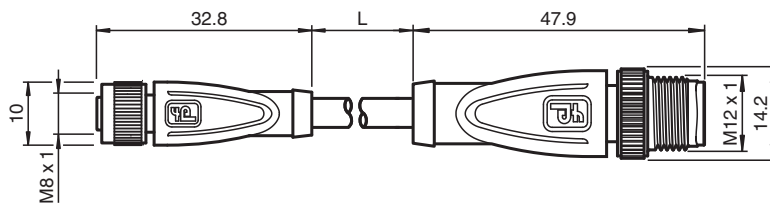
## Connection cable V31-GM-BK1M-PUR-U-V1-G

- Suitable for drag chains and abrasion resistant
- Suitable for robotic applications / torsion resistant
- Degree of protection IP67
- Free from substances that impair paint wetting
- Resistant to microbes and hydrolysis
- UV resistant
- cURus approval
- Halogen-free
- Knurled nut suitable for tool assembly
- Immunity to vibration, with mechanical latching

Cordset M8 socket straight to M12 plug straight A-coded, 4-pin, PUR cable black, UL approved, drag chain suitable, torsion resistant



### Dimensions



### Technical Data

#### General specifications

<b>Connector 1</b>	
Connection	socket
Construction type	M8
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
UL File Number	E231213

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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## Technical Data

Electrical specifications		
Operating voltage	U <sub>B</sub>	max. 30 V AC/DC
Operating current	I <sub>B</sub>	max. 4 A
Conformity		
Degree of protection		EN 60529
Plug connection		connector M8 x 1 : IEC 61076-2-104 connector M12 x 1 : IEC 61076-2-101
Flammability		UL 1581; DIN EN 60332-2-2
Halogen-free		IEC 60754-1
Approvals and certificates		
UL approval		AWM STYLE 20549 AWM I/II A/B 80°C 300V FT2 (cable)
Ambient conditions		
Ambient temperature		
Plug connector		-40 ... 90 °C (-40 ... 194 °F)
Cable, fixed		-40 ... 80 °C (-40 ... 176 °F)
Cable, flexing		-20 ... 80 °C (-4 ... 176 °F)
Pollution degree		3
Mechanical specifications		
Connector 1		
Tightening torque		0.4 Nm
Loosening protection		available
Tool installation		straight knurling
Mating cycles		min. 100
Degree of protection		IP67
Connector 2		
Tightening torque		0.6 Nm
Loosening protection		available
Tool installation		straight knurling
Mating cycles		min. 100
Degree of protection		IP67 / 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. 80 N / 300 mm
Sheath color		black (similar to RAL 9005)
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	1 m
Cable code		Li 9Y 11Y 4 x 0.34
Drag chain suitability		
Drag chain cycles		min. 5000000
Motion velocity		max. 3.3 m/s
Traverse distance		max. 5 m
Acceleration		max. 5 m/s <sup>2</sup>
Torsion cycles		min. 1000000
Torsional stress		± 180 °/m
Material		
LABS free		yes
Halogen-free		yes

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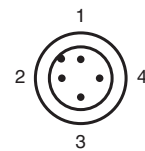
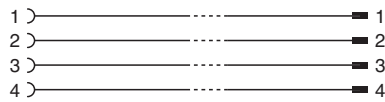
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**PEPPERL+FUCHS**

**Technical Data**

<b>Plug connector</b>		
Screw connection		Zinc diecast, nickel-plated
Body		TPU, black
Contact surface		Au
Flammability		V-2
<b>Cable</b>		
Sheathing		PUR based on polyether
Core insulation		PP
UV resistance		yes
Chemical resistance		good
Oil resistance		yes
Cooling lubricant resistance		yes
Microbial resistance		yes
Hydrolysis resistance		yes
Flammability		FT2

**Connection Assignment**



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