

Connection cable

V1-G-BK20M-PUR-U-V1-G



- 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
- UV resistant
- UL listed for USA and Canada
- Halogen-free
- Specific design protects against loosening and inaccurate installation

Cordset M12 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

Connector 1			
Connection		socket	
Construction type		M12	
Style		straight	
Locking		screw connection	
Number of pins		4	
Coding		A-coded	
Connector 2			
Connection		plug	
Construction type		M12	
Style		straight	
Locking		screw connection	
Number of pins		4	
Coding		A-coded	

Electrical specifications

Operating voltage	U_B	max. 250 V AC/DC	
Operating current	I_B	max. 4 A	

Conformity

Degree of protection	EN 60529		
Plug connection	connector M12 x 1 : IEC 61076-2-101		
Flammability	UL 1581; DIN EN 60332-2-2		
Halogen-free	IEC 60754-1		

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Technical Data

Approvals and certificates

UL approval		AWM STYLE 20549 AWM I/II A/B 80°C 300V FT2 (cable)
UL File Number		E231213

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

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		
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 ²
Cores color		Core 1: brown Core 2: white Core 3: blue Core 4: black
Core construction		42 x 0.1 mm Ø
Length	L	20 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 ²
Torsion cycles		min. 1000000
Torsional stress		± 180 °/m

Material

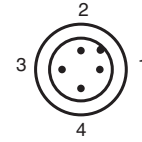
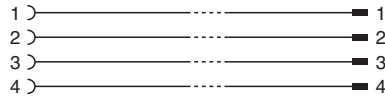
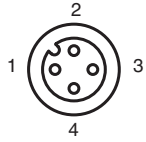
PWIS free		yes
Halogen-free		yes
Plug connector		
Screw connection		Zinc diecast, nickel-plated
Body		TPU, black
Seal		FKM
Contact surface		gold plated (Au)
Flammability		V-2
Cable		
Sheathing		PUR based on polyether
Core insulation		PP
UV resistance		yes
Chemical resistance		good
Oil resistance		yes
Cooling lubricant resistance		yes

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Microbial resistance	yes
Hydrolysis resistance	yes
Flammability	FT2

Connection



Accessories

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