## Product Data





# M12 Connection Cables for MAC motor Expansion Modules and the QuickStep motors



In order to ease installation of the MAC and QuickStep motors with M12 connectors, JVL has developed a series of readymade cables and adaptors etc.

In the table on the following center spread we have listed all items available and indicated which cables that should be used with which expansion module.

In the last columns cables for the QuickStep motors ar given.

All the cables and other items for easy installation can normally be delivered from stock.

Special length's of cables can be made to order.

It is recommended to use the protection caps for expansion module sockets not in use.

All the M12 connectors fulfil IP67 requirements.

If desired you can make most

of your own flexible or robot cables by means of the 5- and 8-pin male and female connectors.

LD0067-06GB Date: 7-10-08

	exp	nector overview for MAC motor ansion modules MAC00-X4 and QuickStep motors.		nector housing	<b>12</b>	M		<b>1</b>	P	-		-	100	á	No.		6	T.	(	35	N.	•	S. C.				500		
						on, RS232 SB <u>+</u> 10V	tio	n with	one opera- sequential amming		Profibus			ous/CA eviceN	Nopen let	Hig	h Speed multia	I RS485 ixis		multia	ed RS485 exis for 1 SoftNC	В	Bluetoot WLA Wirele	١N		Qui	iickStep r	notor	
		Expansion module type no.		nec	B4	1		R	R4		FP4		FC4	4 and	FD4		FS4	ļ		FI	R4	F	B4 and	EW4		MIS	23xA1M	zN075	
	Cable order no.	Connectors		5 10	COM1	COM2 PW	R 101	1 102	COM PWR	RUS1	BUS2 IO	PWR	RUS1 R	IIS2 I	IO PWR	101	102 0	OM PW	R RUS1	RUS2	IO PW	/R I/O	102	PWR	CAN	RS485	105-8	I01-4	PWR
	cause order no.	Cable Description		(8M)	(F8)	(F5) (M5	5) (M8	B) (F8)	(F5) (M5)	(M5)	(F5) (F8	(M5)	(M5) (	(F5) (F	F8) (M5)	(M8)	(F8) (	(F5) (M5	5) (F8)	(F8)	(M8) (M	5) (F8)					(F8)	RS485 (F8)	
	WI1000-M12F5V05N	M12, 5 pin female Cable 5m, Power		х		x (2	2)		X (2)			X (2)	X <sup>(1)</sup>		X (2)			X <sup>(2</sup>	2)		x (	!)		X <sup>(2)</sup>	X <sup>(1)</sup>				X <sup>(2)</sup>
	WI1000-M12F5V20N	M12, 5 pin female Cable 20m, Power	e 4)	х		x (2	2)		X (2)			X (2)	X <sup>(1)</sup>		X (2)			x <sup>(2</sup>	2)		x (	!)		X (2)	X <sup>(1)</sup>				X <sup>(2)</sup>
	WI1000-M12F8V05N	M12, 8 pin female Cable 5m, Basic I/O	note es (P	хх			х									х					х	Х							
	WI1000-M12F8V20N	M12, 8 pin female Cable 20m, Basic I/O	ء اقا	хх			х									х					х	Х							
	WI1000-M12M5V05N	M12, 5 pin male Cable 5m, Communication	8 2	х		X <sup>(1)</sup>			X <sup>(1)</sup>				)	X <sup>(1)</sup>			,	x <sup>(1)</sup>								X <sup>(1)</sup>			
	WI1000-M12M5V20N	M12, 5 pin male Cable 20m, Communication	paled g	х		X <sup>(1)</sup>			X <sup>(1)</sup>				)	x <sup>(1)</sup>			2	X <sup>(1)</sup>								x <sup>(1)</sup>			
<b>4</b>	WI1000-M12M8V05N	M12, 8 pin male Cable 5m, Extended I/O	Shie	х	X <sup>(1)</sup>			х			х				х		х		x <sup>(1)</sup>	X <sup>(1)</sup>			Х				х	X <sup>(1)</sup>	
	WI1000-M12M8V20N	M12, 8 pin male Cable 20m, Extended I/O		х	X <sup>(1)</sup>			х			х				х		х		x <sup>(1)</sup>	X <sup>(1)</sup>			х				х	X <sup>(1)</sup>	
		M12, 5 pin female Cable 5m, Power		х		х	Ī		Х			х	x <sup>(1</sup>		х			Х			х			Х	X <sup>(1)</sup>				х
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		M12, 8 pin female Cable 5m, Basic I/O	(PVC)	хх			х									х					х	х							
		M12, 8 pin female Cable 20m, Basic I/O	180 Ples	x x			X									х			1		х	х							
		M12, 5 pin male Cable 5m, Communication	ta Car	х		X <sup>(1)</sup>			X <sup>(1)</sup>				)	x <sup>(1)</sup>			,	X <sup>(1)</sup>								x <sup>(1)</sup>			
(1)		M12, 5 pin male Cable 20m, Communication	Straig elded	х		X <sup>(1)</sup>			X <sup>(1)</sup>					X <sup>(1)</sup>				X <sup>(1)</sup>								X <sup>(1)</sup>			
		M12, 8 pin male Cable 5m, Extended I/O	Shie	x	X <sup>(1)</sup>			х			х				х		х		x <sup>(1)</sup>	X <sup>(1)</sup>			х				х	x <sup>(1)</sup>	
		M12, 8 pin male Cable 20m, Extended I/O	Y	_	x <sup>(1)</sup>			х			х				х		х		x (1)	X <sup>(1)</sup>			X				х	x <sup>(1)</sup>	
ST.	WI1008-M12F5SS1	M12 5 pin female 0', solder terminal	ادر ادر	^		Х			Х			х	Х		Х		7.	Х			Х			х	Х		-		X
	WI1008-M12F8SS1	M12 8 pin female 0', solder terminal	- li	х			x									х					Х	х							
	WI1008-M12M5SS1	M12 5 pin male 0', solder terminal	- Jac	^		Х			Х					х		^		х			^	-				х			
	WI1008-M12M8SS1	M12 8 pin male 0', solder terminal	_ <u>5</u>		Х	^		х	^					_	х		х	X	X	х			Х			^	х	×	
	WI1008-M12F5TG1	M12 female 5 pin springcon for Ø4-8 cable	++	Y	Λ	Х	+	Λ	Х			Х	Y		Х		^	Х	^		X	+	Ŷ	Х	Х		^	^	Y
	WI1008-M12F8TC1	M12 female 8 pin, screw, for Ø4-8 cable		^ v v		^	X		^			^	^		^	х		^	+		X	Х							^
All a Control of the	WI1008-M12M5TG1	M12 male 5 pin springcon for Ø4-8 cable	-  <u>=</u>  -	^ ^ _		х	+^		Х					х		^		х	+		^	<del>  ^</del>				х			
		M12 male 8 pin, screw, for Ø4–8 cable	— 호	^	V	^	+	х	^						х			^	V	Х			х			^			
400		IP67 protection cap for M12 for female connector	+	^	X	V	+		V		V V						X	v	_			+-		_		V	X		
	WI1000-W12TCAP1	IP67 protection cap for M12 for male connector		v	Х	X	v	X	Х	v	ХХ		v	X			Х	X	X	Х	V V	V	Х	V	· v	X	Х	X	v
	RS232-M12-1-5-5	RS232 M12 5 pin male for MAC00-R4.		Х		X	<del>  ^</del>		X	Х		Х	X		Х	Х		X			X X	Х		Х	Х				
		RS232 M12 8 pin male 5m for FC4,FD4,FP4,B4	<u> </u>			Х	+		X		v				v		v					+-	1						
		RS485 M12 8 pin male 5m			X						Х				Х		Х						Х					- V	
4.4		'			Х	v	+												+							v		X	
3		RS485 M12 5 pin male 5m	++			Х	+															+-	_	_		Х			
		M12 cable, 5m, 5 pin female CANopen/DeviceNet	- s	X			-						X									4	4	_	Х				
0		M12 cable, 15m, 5 pin female CANopen/DeviceNet	Devic	X									X	V											Х				
		M12 cable, 5m, 5 pin male CANopen/DeviceNet	lub	X			+							X								4	4	_					_
		M12 cable, 15m, 5 pin male CANopen/DeviceNet	- Iš	X			+							X								-			4-				
		M12 5 pin male terminating resistor CANopen/DeviceNet		,			+							Х									QuickS tor orde	Step er no. ↓					
		M12 connector profi 5 pin female, screw, B-coded		Λ						Х	Y .											_			2)				
		M12 connector profi 5 pin male, screw, B-coded		Λ							Х											_		//2N075 <sup>(3)</sup>	_			X	X
		M12 cable 5m, 5 p. female B coded profibus	snqi	X						Х												_		M3N075		Х			Х
		M12 cable 15m. 5 p. female B coded profibus	lof	X						Х	_											_		/4N075 <sup>(3)</sup>	1		Х		Х
		M12 cable 5m. 5 pin male B coded profibus	_ -	X							X											_		M5N075	_	Х	X	X	
		M12 cable 15m. 5 pin male B coded profibus	_	Х							Х											_		M6N075	_			X	
4	W11028-M12M4S1K3	M12 4 pin male B code terminating Resistor Profi ector, F5 = 5-pole female connector. M8 = 8-pole male con									Х											IVIIS	ZSXATI	M7N075	Х		Х	Х	X

M5 = 5-pole male connector, F5 = 5-pole female connector. M8 = 8-pole male connector, F8 = 8-pole female connector. All standard cables use foil shield and are not twisted pair. It is not recommended for bending applications

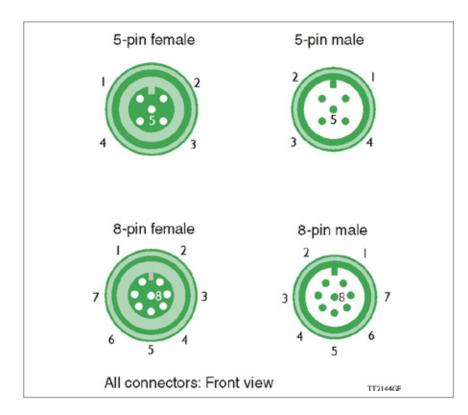
Note 1: Standard cable can be used for RS485, CANopen and DeviceNet but only in low noise environments for point-to-point or small networks. We strongly recommend twisted pair and double shielded cable. Shield be connected to connector housing.

Note 2: For very noisy environments it is recommended to use double shielded power cable and shielded connector.

Note 3: Only for orders > 50 pcs.

Note 4: Can also be delivered without shield connected to connector housing. Order A-type. eg. WI1000-M12F8A20N See also user manual for each module type for detailed cable information.

### M12 connectors



### Color code for standard cables

### 5-pole connector

Pin no.	Color
1	Brown
2	White
3	Blue
4	Black
5	Grey

### 8-pole connector

Pin no.	Color
1	White
2	Brown
3	Green
4	Yellow
5	Grey
6	Pink
7	Blue
8	Red

# Color code for DeviceNet cables

Pin no.	Description	Color
1	Drain	Colorless
2	V+	Red
3	V-/CAN_GND	Black
4	CAN_H	White
5	CAN_L	Blue

# Color code for CANopen cables

Pin no.	Description	Color
3	CAN_GND	Black
4	CAN_H	White
5	CAN_L	Blue

### Color code for ProfiBus cables

Pin no.	Description	Color
1		
2	Α	Green
3		
4	В	Red
5	Shield	Shield

### Recommended cable for making your own cables:

4-lead RS485 cable with double shield. Order no.: WH0039-N2x2x0.3+2xSC	
2-lead CANopen cable. Order no.: WH0038-N2x0.75-CAN	
2-lead Profibus cable Order no.: WH0040-2Nx0.34-PR0FI	<u></u>



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