



MAC00-ES4

Sercos module M12 connectors

MAC00 modules are control- and -interface modules for the MAC motor® series of integrated (all-in-one) servo motors with shaft power from 46 W to 4500 W.

Choose between a wide range of control modules

- Ethernet modules support all protocols: Profinet, EtherNet/IP, EtherCAT, SERCOS, Powerlink and ModbusTCP/UDP
- Ethernet modules have built-in Switch for easy daisy-chaining of cables from motor-to-motor
- Wireless modules: WLAN or BlueTooth
- CANopen, Devicenet or Profibus or ePLC modules
- Serial communication modules, RS232 and/or RS485

Unique Ethernet functionality: use MacTalk® (PC software) to change freely between all the different Ethernet protocols, you don t need several different types on stock ONE is enough.



General information

Description	Sercos module M12 connectors, Sercos III module M12 connectors		
Manufacture	JVL	For motor type	MAC
Color	Black	Protection house	IP67
Software	MacTalk	Interface	RS232
Connectivity - Busses	Sercos		
Control voltage (CVI/O+) [V]	12-28	Main supply [V]	12-48
Expansion connector	Generation 2		
Integrated PLC	No	PLC no. of DI	1
PLC no. of AIN		PLC no. of DO	1
Multifunction IOs		PLC no. of DIO	n/a



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Mechanical information

Customer Sealing

Datasheet - pdf



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Connector information

Expansion connector Generation 2

Picture connectors



Connector 1 label	PWR	Connector 1	M12 5-pin male A-coded
Connector 2 label	IO	Connector 2	M12 8-pin female A-coded
Connector 3 label	LA OUT	Connector 3	M12 4-pin female D-coded Ethernet
Connector 4 label	LA IN	Connector 4	M12 4-pin female D-coded Ethernet
Connector 2 RS232	Yes	Connector 2 RS485	n/a
Connector 3 RS232	n/a	Connector 3 RS485	n/a
Connector 4 RS232	n/a	Connector 4 RS485	n/a

Picture CN1

"PWR" - Power input. M12 - 5pin male connector				
Signal name	Description	Pin no.	JVL Cable W11000-M12F5T05N	Isolation group
P+	Main supply - Connect with pin 2 * When installed in MAC050 to 141 = 12-48VDC When installed in MAC400-4500 = 18-30VDC	1	Brown	1
P+	Main supply - Connect with pin 1 *	2	White	1
P-	Main supply ground. Connect with pin 5 *	3	Blue	1
CVI	Control supply nominal +12-48VDC. DO NOT connect >50V to this terminal ! A small leakage current may exist on this pin if not used. Connect this terminal to ground if not used.	4	Black	1
P-	Main supply ground. Connect with pin 3 *	5	Grey	1

* Note: P+ and P- are each available at 2 terminals. Make sure that both terminals are connected in order to split the supply current in 2 terminals and thereby avoid an overload of the connector.

Picture CN2

"I/O" - I/O's and interface. M12 - 8pin female connector.				
Signal name	Description	Pin no.	JVL Cable W11000-M12M8T05N	Isolation group (See note)
O1	Output 1 - PNP/Sourcing output	1	White	2
RS232: TX	RS232 interface, Transmit terminal Leave open if unused.	2	Brown	1
RS232: RX	RS232 interface, Receive terminal Leave open if unused.	3	Green	1
GND	Interface ground to be used together with the other signals in this connector. Also ground for the analogue input (AIN1 - pin 5)	4	Yellow	1
AIN1	Analogue input1 ±10V or used for zero search	5	Grey	1
IN1	Digital input 1 - 12-32V tolerant.	6	Pink	2
IO-	I/O ground to be used with the I/O terminals O1 and IN1.	7	Blue	2
O+	Positive supply input to the output circuitry. Connect 5-32VDC to this terminal if using the O1 output.	8	Red	2



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Connector information

Picture CN3

"L/A OUT" - Ethernet port connector. M12 - 4 pin female connector "D" coded				
Signal name	Description	Pin no.	JVL Cable WI1046-M12M4S05R	Isolation group (see note)
Tx1_P	Ethernet Transmit channel 1 - positive terminal	1	Brown/White	4
Rx1_P	Ethernet Receive channel 1 - positive terminal	2	Blue/White	4
Tx1_N	Ethernet Transmit channel 1 - negative terminal	3	Brown	4
Rx1_N	Ethernet Receive channel 1 - negative terminal	4	Blue	4
Shield	Outside shield connected to connector housing	Housing	Shield	1

Picture CN4

"L/A IN" - Ethernet port connector - M12 - 4pin female connector "D" coded				
Signal name	Description	Pin no.	JVL Cable WI1046-M12M4S05R	Isolation group (See note)
Tx0_P	Ethernet Transmit channel 0 - positive terminal	1	Brown/White	3
Rx0_P	Ethernet Receive channel 0 - positive terminal	2	Blue/White	3
Tx0_N	Ethernet Transmit channel 0 - negative terminal	3	Brown	3
Rx0_N	Ethernet Receive channel 0 - negative terminal	4	Blue	3
Shield	Outside shield connected to connector housing	Housing	Shield	1



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Electrical information

Control voltage (CVI/O+) [V]	12-28	Control Voltage (CVI) Min-Max [V]	
Max current CVI [A]			
Main supply [V]	12-48	Main supply Min-Max [V]	10-50
Max current (P+) [A]		P- isolated from Earth	
		PLC no. of DI	1
Dig. Input impedans	10kohm	PLC no. of DO	1
PLC DO max current [mA]	15mA - PNP	PLC no. of DIO	n/a
		PLC no. of AIN	
PLC AIN voltage [VDC]	-10 to +10	PLC AIN Min-Max [VDC]	-10 to +32
PLC AIN Max Tol. [%]	5.0	Multifunction IOs	
PLC MF low level [VDC]		PLC MF high level [VDC]	
PLC MF Max level [VDC]		MTBF 30% [Year]	
MTBF 100% [Year]			