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MIS340C12ECH485 Int.Step 12-72VDC, EtherCAT, AbsC-L











General information

Description	Int.Step 12-72VDC, EtherCAT, AbsC-L, 4xM12. 2x4pF:EtherCAT 17pF:8xDIO/AI +RS422+RS485, High Resolution: 409.600 step/rev. ±0.01 RPM, Programmable (incl. current, position & velocity), C-L + Absolute multi-turn encoder. 4096 CPR ± 5242 Revs, Ø9.53x30.5 mm D-shape Shaft: IP42Motor: IP42, 86.4x95 mm Holding Torque: 3 NmMax. 190.49 WRadial Connector12-72 VDC		
Manufacture	JVL	**Motor type**	Integrated Stepper - Rotating
Motor resolution	409600	**Encoder type**	H4: H2 incr+absSingleturn and H3 serial/absMultiturn
Speed [Rpm]	3000.00	**Power Peak [W]**	190.49
Flange size	NEMA 34 - 87x87mm	**Shaft size - Front [mm]**	9.53 mm
Running torque [Nm]	3.0	**Rated Winding current [A]**	9.0
Holding torque [Nm]	3.0	**Connectivity: Without module**	EtherCAT
Integrated PLC	Yes	**PLC no. of DI/DO/AI**	8
Closed loop	Yes	**STO connector**	No
Integrated gear	No	**Gear ratio**	
Brake	External brake option	**Protection House/Shaft**	
Shaft Double	No	**Main supply [V]**	12-72
Main supply UL [V]	12-60	**Voltage type - Main**	DC
Control voltage (CVI/O+) [VDC]	7-28	**Control Voltage for UL recognized**	7–30 VDC 150 mA + max 500 mA for user outputs
Weight net [kg]	2.00	**MTBF 100% [Year]**	13
Weight gross [kg]	2.25	**MTBF 30% [Year]**	15
Software	MacTalk		
CE Marked	Yes		

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General information

Approval - ROHS-3	Yes		
Approval UL	Yes. Recognized	**UL Installation**	Read more in usermanual about UL precautions

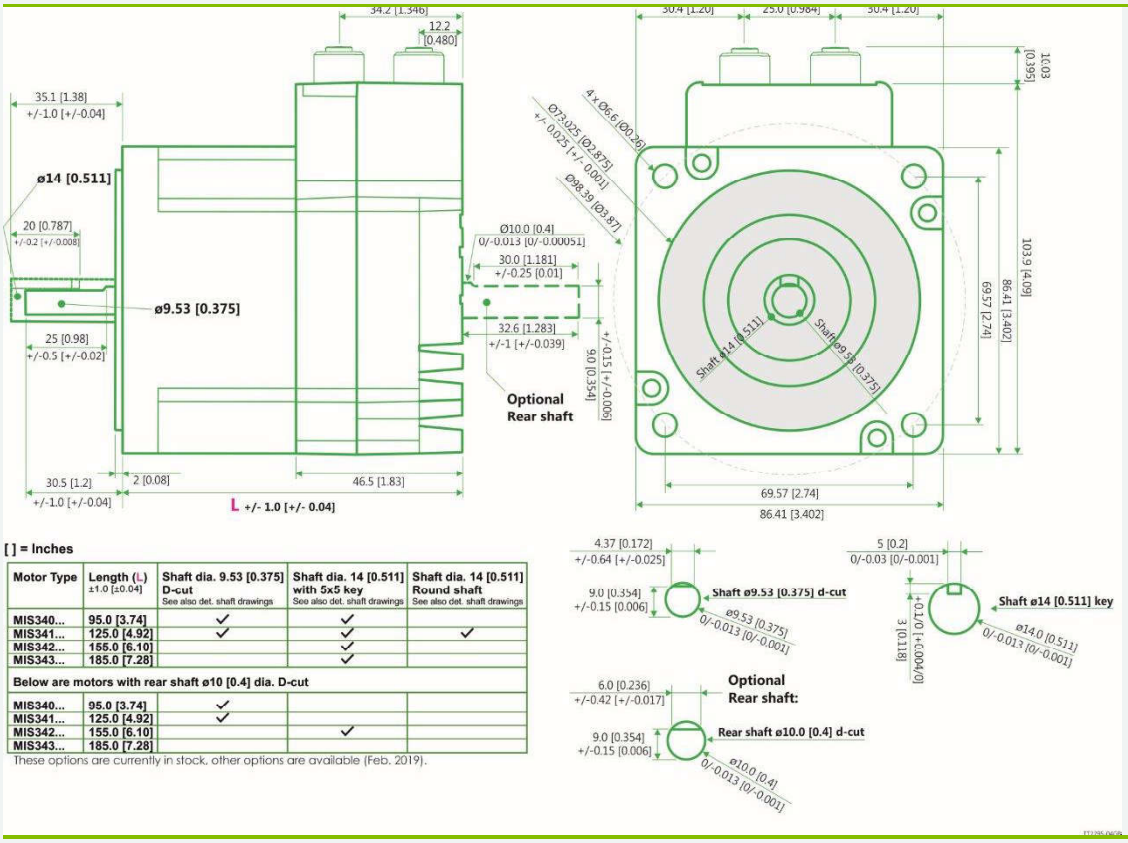
Ambient Temperature [°C]:		**Ambient Temperature with Torque derating: [°C]**	
Maximum Installation Altitude without derating [m]:		**Torque derating per 1000m over 1000m [%]:**	

Motion Information:			
Velocity Precision [+/-ppm]		**Velocity Resolution [Rpm]**	
Acceleration / Deceleration Range [Rpm/s]		**Acceleration / Deceleration Range [Rpm/s]**	
Electronic Gearing Ratio [Range / Resolution]		**Country Of Origin**	DK
Tariff no	85015100	**Tariff no US**	

MIS340C12ECH485 Int.Step 12-72VDC, EtherCAT, AbsC-L

Mechanical information

Paint type



Motor Type	Length (L) ±1.0 [±0.04]	Shaft dia. 9.53 [0.375] D-cut See also det. shaft drawings	Shaft dia. 14 [0.511] with 5x5 key See also det. shaft drawings	Shaft dia. 14 [0.511] Round shaft See also det. shaft drawings
MIS340...	95.0 [3.74]	✓	✓	
MIS341...	125.0 [4.92]	✓	✓	✓
MIS342...	155.0 [6.10]		✓	
MIS343...	185.0 [7.28]		✓	
Below are motors with rear shaft ø10 [0.4] dia. D-cut				
MIS340...	95.0 [3.74]	✓		
MIS341...	125.0 [4.92]	✓		
MIS342...	155.0 [6.10]		✓	
MIS343...	185.0 [7.28]			

These options are currently in stock, other options are available (Feb. 2019).

Motor length [mm]	95.0	**Motor width [mm]**	86.4
Motor height [mm]	104.0		
Protection house	IP42	**Protection shaft**	IP42
		Flange Rear	No
Flange Type Front		**Flange Type Rear**	
Motor diameter center front [mm]	73.0	**Motor diameter center rear [mm]**	
Bolt circle diameter front [mm]	98.4	**Bolt circle diameter front [mm]**	
Mounting holes front [mm]	6.6 mm	**Mounting holes rear [mm]**	
Flange Thickness [mm]		**Flange material**	Aluminium
		Shaft Double	No
Shaft Type Output	D-shape	**Shaft Type Rear**	
Shaft size - Front [mm]	9.53 mm	**Shaft size - Rear**	-
Shaft length Front [mm]	30.5	**Shaft length Rear [mm]**	
Shaft material	Stainless steel SUS303	**Shaft Key included**	Key NOT included
Shaft Key Dimension	-		
Integrated gear	No	**Gear ratio**	

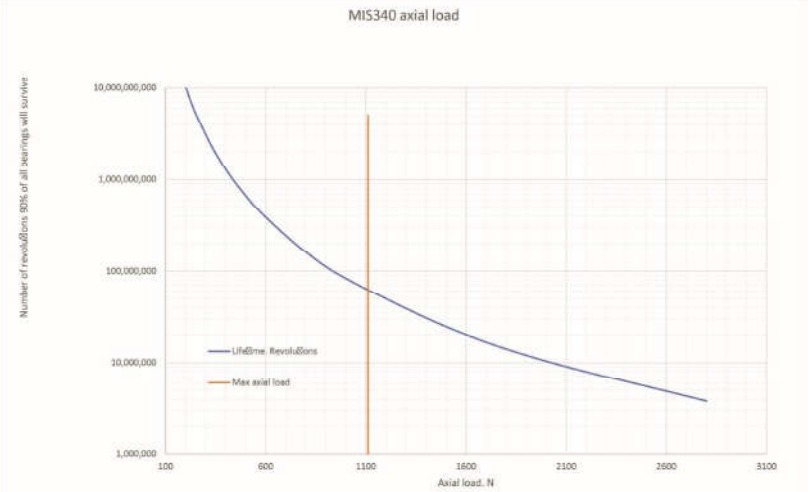
MIS340C12ECH485 Int.Step 12-72VDC, EtherCAT, AbsC-L

Mechanical information

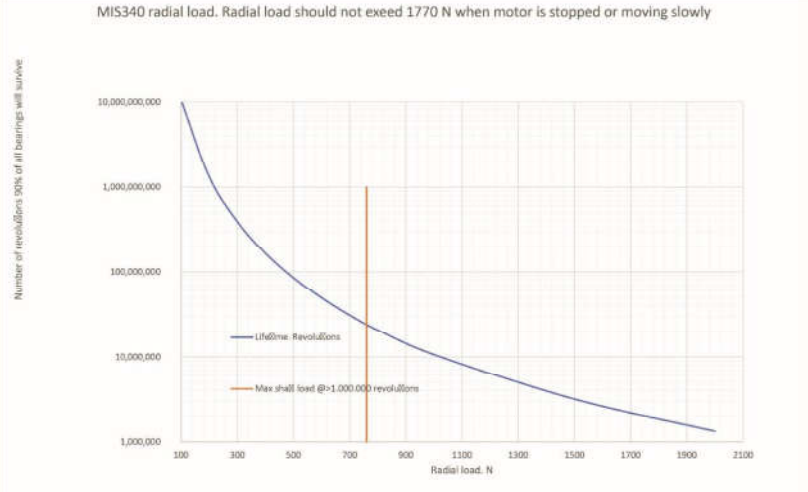
Gear efficiency [%]	< -	**Gear backlash [ArcMin]**	-
Brake	External brake option	**Brake - Go ON time [ms]**	-
Brake Holding torque [Nm]	-	**Brake - Go OFF time [ms]**	-
Rotor inertia [kgcm^2]	1.4	**Max inertia factor**	40
Precision Motor - Absolute [Deg -/+]	0.35	**Precision Motor - Max Load [Deg -/+]**	
Precision Motor - Repeatabillity [Deg -/+]	0.15	**Step angle [°/full step]**	1.8°
CAD 2D [PDF]	Download	**CAD 3D [STEP]**	Download
CAD 2D [DWG]	Download	**CAD 3D [DWG]**	No
CAD 3D [EASM]	No	**CAD 3D [IGES]**	Download
Datasheet - pdf		**CAD file page**	Link
User Manual	Download	**WEB page**	Link
Approval UL	Yes. Recognized	**UL Installation**	Read more in usermanual about UL precautions
STO connector	No	**Approval - ATEX**	No
Approval TÜV - STO	No	**Oil resistant**	
Temperature ambient [°C]	0...40 °C and 0...70 °C with derating of performance	**Temperature storage**	-40...70 °C
Humidity working	5...93% non-condensing	**Vibration**	5-25 Hz: +/-1.6mm, 25-500Hz: 4G, 1.0 oct./min
Shock	15G, 30ms. 6 x 1000 cycles in +/-X, +/-Y, +/-Z	**Withstand Voltage**	500 VDC between earth and supply ground
EMC in general	EMC Directive DIR2014/30/EU	**EMC Emission**	EN61800-3 / EN61000-6-3 / EN61000-6-4 all 2. enviroment
EMC Immunity	En IEC 61800-3 / EN61000-6-1 all 2. enviroment	**Directives**	LVD DIR2014/35/EU / EL61800 - USA and Canada only MIS34x products are pending
Safety wo STO	EN60950-1	**Safety w STO**	EN60950-1 / EN61508-1/-2 SIL3 / ISO13849-1/-2 / ISO62061 / EN61800-5-1/-2
Environmental	IEC 60068-2-27, Test Ea. Shock test	**Environmental 2**	IEC 60068-2-6, Test Fc. Vibration test
Environmental 3	IEC 60068-2-2, Test Bd. covers temperaturerise/dry heat	**Environmental 4**	IEC 60068-2-78, Perm. moisture/Damp heat, steady state
REACH SVHC document	REACH-SVHC Statement	**Low voltage Directive**	LVD conformity with EU standard: EN 61800-3
No Dual Use	Read more here		
Duty Cycle		**Max Duty Cycle [%]**	
Dutycycle UL	Read more in usermanual about UL precautions		
Front bearing type	6002ZZCM/5K	**Rear bearing type**	6002ZZCM/5K
Axial Load Max: Typical Term	Axial load Max Typical is a run of 7.200.000 revolutions at indicated load	**Axial Load Max: Long Term**	Axial load Max Long is a run of 1.440.000.000 revolutions at indicated load
Axial Load Max: Typical [N] (Bearing)	1111	**Axial Load Max: Long [N] (Bearing)**	384

MIS340C12ECH485 Int.Step 12-72VDC, EtherCAT, AbsC-L

Mechanical information



Radial Load Max Typical Term:	Radial load Max Typical is a run of 7.200.000 revolutions at indicated load	**Radial Load Max Long Term:**	Radial load Max Long is a run of 1.440.000.000 revolutions at indicated load
Radial Load Max: Typical [N] (Bearing)		**Radial Load Max: Long [N] (Bearing)**	372



Radial load distance [mm]	15	**Axial play [mm]**	
Axial play force [N]		**Shaft Seal**	

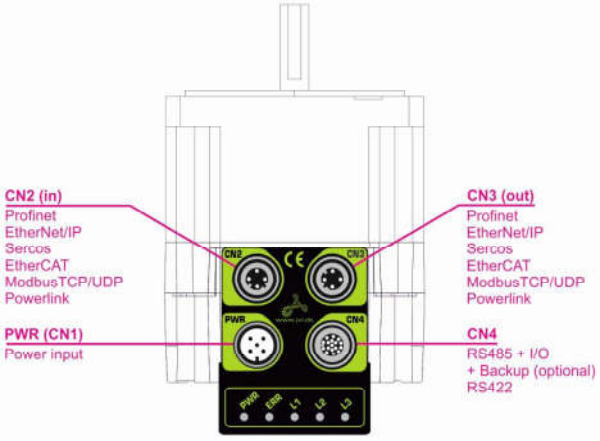
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MIS340C12ECH485 Int.Step 12-72VDC, EtherCAT, AbsC-L

Connector information

Connector 1 label	PWR	**Connector 1**	M12 5-pin male A-coded
Connector 2 label	CN2	**Connector 2**	M12 4-pin female D-coded Ethernet
Connector 3 label	CN3	**Connector 3**	M12 4-pin female D-coded Ethernet
Connector 4 label	CN4	**Connector 4**	M12 17-pin female A-coded
Connector 1 RS485	No	**Connector 2 RS485**	No
Connector 3 RS485	No	**Connector 4 RS485**	Yes

Motor connectors



Picture CN1

"PWR" (CN1) - Power input. M12 - 5pin male connector

Signal name	Description	Pin no.	JVL Cable WI1000-M12F5TxxN	Isolation group
P+	Main supply +7-72VDC. Connect with pin 2 *	1	Brown	1
P+	Main supply +7-72VDC. Connect with pin 1 *	2	White	1
P-	Main supply ground. Connect with pin 5 *	3	Blue	1
CVI	Control and user output supply +7-30VDC. **DO NOT connect >30V to this terminal!**	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

"CN2" - Ethernet In 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	-	2
Rx0_P	Ethernet Receive channel 0 - positive terminal	2	-	2
Tx0_N	Ethernet Transmit channel 0 - negative terminal	3	-	2
Rx0_N	Ethernet Receive channel 0 - negative terminal	4	-	2

MIS340C12ECH485 Int.Step 12-72VDC, EtherCAT, AbsC-L

Connector information

Picture CN3

"CN3" - Ethernet Out 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	-	3
Rx1_P	Ethernet Receive channel 1 - positive terminal	2	-	3
Tx1_N	Ethernet Transmit channel 1 - negative terminal	3	-	3
Rx1_N	Ethernet Receive channel 1 - negative terminal	4	-	3

Picture CN4

"CN4" - RS485 + I/O + Backup (option) **connector - M12 - 17pin female connector**

Signal name	Description	Pin no.	JVL Cable WI1009M12 M17TxxN	Isolation group (see note)
IO1	I/O channel 1. Can be used as input or output	1	Brown	1
GND	Ground intended to be used together with the other signals in this connector	2	Blue	1
IO2	I/O channel 2. Can be used as input or output	3	White	1
IO3	I/O channel 3. Can be used as input or output	4	Green	1
RS422: B1-	RS422 I/O terminal B-	5	Pink	1
IO4	I/O channel 4. Can be used as input or output	6	Yellow	1
RS422: A1-	RS422 I/O terminal A-	7	Black	1
RS422: B1+	RS422 I/O terminal B+	8	Grey	1
CVO	Supply output. Connected internally to the **CVI** terminal in the PWR connector. **DO NOT connect >30V to this terminal!**	9	Red	1
RS422: A1+	RS422 I/O terminal A+	10	Violet	1
IO5	I/O channel 5. Can be used as input or output	11	Grey/pink	1
IO6	I/O channel 6. Can be used as input or output	12	Red/blue	1
IO7	I/O channel 7. Can be used as input or output	13	White/Green	1
IO8	I/O channel 8. Can be used as input or output	14	Brown/Green	1
RS485: B0-	RS485 interface. Leave open if unused	15	White/Yellow	1
EXTBACKUP	Only for motors with the -H3 or -H4 option (abs. multiturn encoder). This terminal can be connected to an external supply. **Connect to ground (GND) if not used.**	16	Yellow/brown	1
RS485: A0+	RS485 interface. Leave open if unused	17	White/grey	1

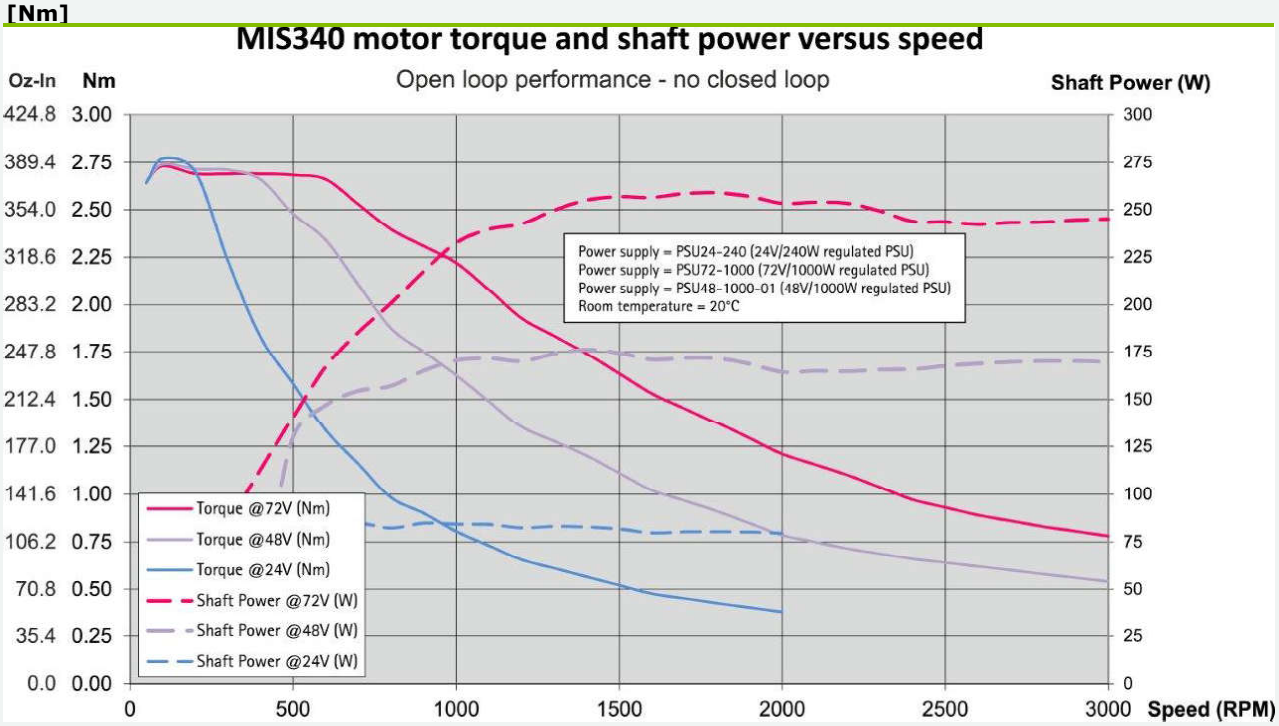
* Note: Isolation group indicate which terminals/circuits that a galvanic connected to each other. In other words group 1, 2, 3 and 4 are all fully independently isolated from each other. Group 1 correspond to the housing of the motor which may also be connected to earth via the DC or AC input supply.

Connector STO	No
Picture STO Con	-

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Torque, force and Power information

Supply Volt 1 [V]	12	**Power Peak 1 [W]**	43.96
Supply Volt 2 [V]	24	**Power Peak 2 [W]**	84.88
Supply Volt 3 [V]	48	**Power Peak 3 [W]**	170.29
Supply Volt 4 [V]	72	**Power Peak 4 [W]**	190.49
Holding torque [Nm]	3.0	**Running torque [Nm]**	3.0
Detent torque [Nm]			



MIS340C12ECH485 Int.Step 12-72VDC, EtherCAT, AbsC-L

Electrical information

Main supply [V]	12-72	**Main supply Min-Max [V]**	7-90
Main supply UL [V]	12-60	**Main supply Max UL [V]**	7-60
Rated motor current [A]	6.3	**Control voltage (CVI/O+) [VDC]**	7-28
Control Voltage (CVI) Min-Max [VDC]	7-32	**Control Voltage for UL recognized**	7–30 VDC 150 mA + max 500 mA for user outputs
CVI current wo Ethernet and output (12/24VDC) [mA]	95/60	**Current Ethernet option (12/24VDC) [mA]**	120/60
Current brake option [mA]	-	**Current for 1 Dig. output - max {mA] [mA]**	350
Max current CVI [A]			
Encoder type	H4: H2 incr+absSingleturn and H3 serial/absMultiturn	**Encoder Resolution (H2)**	H2 - 4096 Singleturn AbsEnc - Semi multiturn
Encoder Resolution (H3)	H3 - 1024 Multiturn AbsEnc	**Encoder revolutions**	+/-5242
PLC no. of DI/DO/AI	8	**Analogue voltage**	0-5VDC 12bit
Dig. Input impedans	27 Kohm	**Counter frequency max**	12MHz
Standard used		**Standard used 2**	
Resistance [Ohm]		**Induction [mH]**	

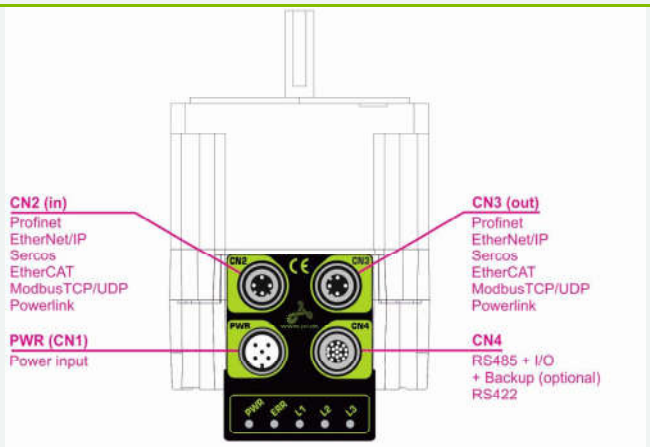
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Communication information

Software	MacTalk	**Connector 2 RS485**	No
Connectivity: Without module	EtherCAT	**Connector 3 RS485**	No
		Connector 4 RS485	Yes

Motor connectors



MIS34xC - Ex

RS485 serial communication in network and Ethernet

e-PLC Files	**Ethernet, PLC demo files**

MIS340C12ECH485 Int.Step 12-72VDC, EtherCAT, AbsC-L

Cable information

Item number Item description	Mount on	Cable con 1 +Con 1 angle Cable con 2 +Con 2 angle	Cable application Cable flexibilty	Wires no totally Wire [mm2]	Cable length [m] Connector 1 LED
WI1000-M12F5T02N M12 Shl Cable 2m 5 pin Fem 0°, Power	Connector 1	M12 5-pin female A-coded - 180° Straight Open Ended - n/a	Power/Motor/com Standard	5 0.32	2 No
WI1000-M12F5T05N M12 Shl Cable 5m 5 pin Fem 0°, Power	Connector 1	M12 5-pin female A-coded - 180° Straight Open Ended - n/a	Power/Motor/com Standard	5 0.32	5 No
WI1000-M12F5T1.2N M12 Shl Cable 1.2m 5 pin Fem 0°, Power	Connector 1	M12 5-pin female A-coded - 180° Straight Open Ended - n/a	Power/Motor/com Standard	5 0.32	1.2 No
WI1000-M12F5T10N M12 Shl Cable 10m 5 pin Fem 0°, Power	Connector 1	M12 5-pin female A-coded - 180° Straight Open Ended - n/a	Power/Motor/com Standard	5 0.32	10 No
WI1000-M12F5T10R M12 Shl Cable 10m 5 pin Fem 0°, Power, High-flex	Connector 1	M12 5-pin female A-coded - 180° Straight Open Ended - n/a	Power/Motor/com Cable Chains - 2D	5 0.34	10 No
WI1000-M12F5T20N M12 Shl Cable 20m 5 pin Fem 0°, Power	Connector 1	M12 5-pin female A-coded - 180° Straight Open Ended - n/a	Power/Motor/com Standard	5 0.32	20 No
WI1000-M12F5TLT0185 M12 shl Cable 3m 5 pin female 0°,PW SPEC	Connector 1	M12 5-pin female A-coded - 180° Straight - n/a	Power/Motor/com Standard	5 0.32	3 No
WI1000-M12F5TM5T1.5N M12 A Code Shl Cable 1.5m 5 pin Female/Male 0° Pow	Connector 1	M12 5-pin female A-coded - 180° Straight - n/a	Power/Motor/com		1.5 No
WI1000-M12F5V05N M12 Shl Cable 5m 5 pin Fem 90°, Power	Connector 1	M12 5-pin female A-coded - 90° Angled Open Ended - n/a	Power/Motor/com Standard	5 0.32	5 No
WI1000-M12F5V05R M12 Shl Cable 5m 5 pin Fem 90°, Power, 3D	Connector 1	M12 5-pin female A-coded - 90° Angled - n/a	Power/Motor/com		5 No
WI1000-M12F5V10N M12 Shl Cable 10 m 5 pin Fem 90°, Power	Connector 1	M12 5-pin female A-coded - 90° Angled Open Ended - n/a	Power/Motor/com Standard	5 0.32	10 No
WI1000-M12F5V20N M12 Shl Cable 20m 5 pin Fem 90°, Power	Connector 1	M12 5-pin female A-coded - 90° Angled Open Ended - n/a	Power/Motor/com Standard	5 0.32	20 No
WI1000-M12F5W05N M12 Shl Cable 5m LED 5p Fem 90°, Power <50V	Connector 1	M12 5-pin female A-coded - 90° Angled Open Ended - n/a	Power/Motor/com Standard	5 0.32	5 LED
WI1000-M12F5W10N M12 Shl Cable 10m LED 5 p Fem 90°, Power <50V	Connector 1	M12 5-pin female A-coded - 90° Angled Open Ended - n/a	Power/Motor/com Standard	5 0.32	10 LED
WI1000-M12F5W15N M12 Shl Cable 15m LED 5 p Fem 90°, Power <50V	Connector 1	M12 5-pin female A-coded - 90° Angled Open Ended - n/a	Power/Motor/com Standard	5 0.32	15 LED
WI1000-M12F5W20N M12 Shl Cable 20m LED 5 p Fem 90°, Power <50V	Connector 1	M12 5-pin female A-coded - 90° Angled Open Ended - n/a	Power/Motor/com Standard	5 0.32	20 LED
WI1000-M12F5WF5W20N M12 shl cab 20m LED 5 pin female 90',Pow <50V	Connector 1	M12 5-pin female A-coded - 90° Angled M12 5-pin female A-coded - n/a	Power/Motor/com Standard	5 0.32	20 LED
WI1005-M12F5TF5T03P M12 Cab 3m, 5p Fem - 5p Fem twistedPair	Connector 1	M12 5-pin female A-coded - 180° Straight M12 5-pin female A-coded - n/a	Communication	0.32	3 No
WI1005-M12F5TM5T2.0N M12 cable 2m, 5 pin female - 5pin male	Connector 1	M12 5-pin female A-coded - 180° Straight M12 5-pin male A-coded - n/a	Communication Standard	0.32	2 No
WI1008-M12F5AG1 M12 Con 5p Fem 90° Spring Ø4-8mm cable	Connector 1	M12 5-pin female A-coded - 90° Angled Open Ended - n/a	CANopen/DeviceNet		20 No
WI1008-M12F5SS1 M12 Con 5p Fem 0° Solder assembly	Connector 1	M12 5-pin female A-coded - 180° Straight - n/a	CANopen/DeviceNet n/a	n/a n/a	Connector No
WI1008-M12F5TG1 M12 Con 5p Fem 0° Spring Shield+B222	Connector 1	M12 5-pin female A-coded - 180° Straight - n/a	CANopen/DeviceNet n/a	n/a n/a	Connector No
WI1008-M12F5VG1 M12 Con 5p Fem 90° Spring Shield	Connector 1	M12 5-pin female A-coded - 90° Angled - n/a	CANopen/DeviceNet n/a	n/a n/a	Connector No
WI1025-M12F5AF5AM5A M12 T-Con 2x Fem 5 p + 1x Male 5 p	Connector 1	M12 5-pin female A-coded - 90° Angled M12 5-pin female A-coded - n/a	Standard	5 0.32	 No
WI1025-M12F5AM5A M12 Cabinet Feed-through F5p-M5p	Connector 1	M12 5-pin female A-coded - 90° Angled M12 5-pin male A-coded - n/a	Standard	5 0.32	 No
WI1025-M12F5AM5AF5A M12 T-Con Fem 5p+ Male 5p + Fem 5p NoSh	Connector 1	M12 5-pin female A-coded - 90° Angled M12 5-pin male A-coded - n/a	Standard	5 0.32	 No
WI1025-M12F5VM5VF5V M12 Shl Y-Con 1xMale 5p + 2x Fem 5p CAN	Connector 1	M12 5-pin female A-coded - 90° Angled M12 5-pin male A-coded CAN - n/a	Standard	5 0.32	 No
WI1046-M12M4S.3NRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	0.3

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Cable information

Item number Item description	Mount on	Cable con 1 +Con 1 angle Cable con 2 +Con 2 angle	Cable application Cable flexibilty	Wires no totally Wire [mm2]	Cable length [m] Connector 1 LED
M12 Cab D-code Ethernet M0°-RJ45, 0.3m, Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4S01NRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	1
M12 Cab D-code Ethernet M0°-RJ45, 1.0m, Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4S05R	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	5
M12 Cab D-code Ethernet M0°, SFTP, 5m Ø7		Open Ended - n/a	Cable chains - 2D	0.13	No
WI1046-M12M4S10NRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	10
M12 Cab D-code Ethernet M0°-RJ45, 10m, Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4S15NRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	15
M12 Cab D-code Ethernet M0°-RJ45, 15m, RJ45 Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4S15R	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	15
M12 Cab D-code Ethernet M0°, 15m Ø7		Open Ended - n/a	Cable chains - 2D	0.13	No
WI1046-M12M4T.3TRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	0.3
M12 Cab D-code Ethernet M0°-RJ45, 0.3m, RJ45 Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4T01TRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	1
M12 Cab D-code Ethernet M0°-RJ45, 1m, RJ45 Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4T02NRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	2
M12 Cab D-code Ethernet M0°-RJ45, 2m, Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4T05TRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	5
M12 Cab D-code Ethernet M0°-RJ45, 5m, Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4T10TRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	10
M12 Cab D-code Ethernet M0°-RJ45, 10m, Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4T15TRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	15
M12 Cab D-code Ethernet M0°-RJ45, SFTP, 15m, Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4T20TRJ45	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	20
M12 Cab D-code Ethernet M0°-RJ45, 20m, Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4TM4T.3R	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	0.3
M12 Cab D-code Ethernet M0°-M0°, 0,3m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No
WI1046-M12M4TM4T.3T	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	0.3
M12 Cab D-code Ethernet M0°-M0°, 0,3m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Standard	0.13	No
WI1046-M12M4TM4T01R	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	1
M12 Cab D-code Ethernet M0°-M0°, 1m, Ø7		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No
WI1046-M12M4TM4T01T	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	1
M12 Cab D-code Ethernet M0°-M0°, 1m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Standard	0.13	No
WI1046-M12M4TM4T02R	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	2
M12 Cab D-code Ethernet M0°-M0°, 2,0m, Ø7		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No
WI1046-M12M4TM4T02T	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	2
M12 Cab D-code Ethernet M0°-M0°, 2,0m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Standard	0.13	No
WI1046-M12M4TM4T05R	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	5
M12 Cab D-code Ethernet M0°-M0°, 5m, Ø7		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No
WI1046-M12M4TM4T05T	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	5
M12 Cab D-code Ethernet M0°-M0°, 5m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Standard	0.13	No
WI1046-M12M4TM4T10R	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	10
M12 Cab D-code Ethernet M0°-M0°, 10m, Ø7		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No
WI1046-M12M4TM4T10T	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	10
M12 Cab D-code Ethernet M0°-M0°, 10m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Standard	0.13	No
WI1046-M12M4TM4T15R	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	15
M12 Cab D-code Ethernet M0°-M0°, 15m, Ø7		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No
WI1046-M12M4TM4T20R	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	20
M12 Cab D-code Ethernet M0°-M0°, 20m, Ø7		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No

MIS340C12ECH485 Int.Step 12-72VDC, EtherCAT, AbsC-L

Cable information

Item number Item description	Mount on	Cable con 1 +Con 1 angle Cable con 2 +Con 2 angle	Cable application Cable flexibilty	Wires no totally Wire [mm2]	Cable length [m] Connector 1 LED
WI1046-M12M4TM4T20T M12 Cab D-code Ethernet M0°-M0°, 20m, Ø6	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight M12 4-pin male D-coded Ethernet - n/a	Ethernet Standard	4 0.13	20 No
WI1046-M12M4V02TRJ45 M12 Cab D-code Ethernet M90°-RJ45, 2m, Ø5	Connector 2	M12 4-pin male D-coded Ethernet - 90° Angled RJ45 male - n/a	Ethernet Standard	4 0.13	2 No
WI1046-M12M4V05TRJ45 M12 Cab D-code Ethernet M90°-RJ45, 5m, Ø6	Connector 2	M12 4-pin male D-coded Ethernet - 90° Angled RJ45 male - n/a	Ethernet Standard	4 0.13	5 No
WI1046-M12M4VM4T.6N M12 Cab D-code Ethernet M90°-M0°, 0,6m, Ø6	Connector 2	M12 4-pin male D-coded Ethernet - 90° Angled M12 4-pin male D-coded Ethernet - n/a	Ethernet Standard	4 0.13	0.6 No
WI1046-M12M4VM4V.6N M12 Cab D-code Ethernet M90°-M90°, 0,6m, Ø6	Connector 2	M12 4-pin male D-coded Ethernet - 90° Angled M12 4-pin male D-coded Ethernet - n/a	Ethernet Standard	4 0.13	0.6 No
WI1048-M12M4TTR1 M12 Con 4 p Male D Code Ethernet PressLock	Connector 2	M12 4-pin male D-coded Ethernet - 180° Straight - n/a	Ethernet n/a		Connector No
WI1046-M12M4S.3NRJ45 M12 Cab D-code Ethernet M0°-RJ45, 0.3m, Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	0.3 No
WI1046-M12M4S01NRJ45 M12 Cab D-code Ethernet M0°-RJ45, 1.0m, Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	1 No
WI1046-M12M4S05R M12 Cab D-code Ethernet M0°, SFTP, 5m Ø7	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight Open Ended - n/a	Ethernet Cable chains - 2D	4 0.13	5 No
WI1046-M12M4S10NRJ45 M12 Cab D-code Ethernet M0°-RJ45, 10m, Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	10 No
WI1046-M12M4S15NRJ45 M12 Cab D-code Ethernet M0°-RJ45, 15m, RJ45 Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	15 No
WI1046-M12M4S15R M12 Cab D-code Ethernet M0°, 15m Ø7	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight Open Ended - n/a	Ethernet Cable chains - 2D	4 0.13	15 No
WI1046-M12M4T.3TRJ45 M12 Cab D-code Ethernet M0°-RJ45, 0.3m, RJ45 Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	0.3 No
WI1046-M12M4T01TRJ45 M12 Cab D-code Ethernet M0°-RJ45, 1m, RJ45 Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	1 No
WI1046-M12M4T02NRJ45 M12 Cab D-code Ethernet M0°-RJ45, 2m, Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	2 No
WI1046-M12M4T05TRJ45 M12 Cab D-code Ethernet M0°-RJ45, 5m, Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	5 No
WI1046-M12M4T10TRJ45 M12 Cab D-code Ethernet M0°-RJ45, 10m, Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	10 No
WI1046-M12M4T15TRJ45 M12 Cab D-code Ethernet M0°-RJ45, SFTP, 15m, Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	15 No
WI1046-M12M4T20TRJ45 M12 Cab D-code Ethernet M0°-RJ45, 20m, Ø5	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight RJ45 male - n/a	Ethernet Standard	4 0.13	20 No
WI1046-M12M4TM4T.3R M12 Cab D-code Ethernet M0°-M0°, 0,3m, Ø6	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight M12 4-pin male D-coded Ethernet - n/a	Ethernet Robotic - 3D	4 0.14	0.3 No
WI1046-M12M4TM4T.3T M12 Cab D-code Ethernet M0°-M0°, 0,3m, Ø6	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight M12 4-pin male D-coded Ethernet - n/a	Ethernet Standard	4 0.13	0.3 No
WI1046-M12M4TM4T01R M12 Cab D-code Ethernet M0°-M0°, 1m, Ø7	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight M12 4-pin male D-coded Ethernet - n/a	Ethernet Robotic - 3D	4 0.14	1 No
WI1046-M12M4TM4T01T M12 Cab D-code Ethernet M0°-M0°, 1m, Ø6	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight M12 4-pin male D-coded Ethernet - n/a	Ethernet Standard	4 0.13	1 No
WI1046-M12M4TM4T02R M12 Cab D-code Ethernet M0°-M0°, 2,0m, Ø7	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight M12 4-pin male D-coded Ethernet - n/a	Ethernet Robotic - 3D	4 0.14	2 No
WI1046-M12M4TM4T02T M12 Cab D-code Ethernet M0°-M0°, 2,0m, Ø6	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight M12 4-pin male D-coded Ethernet - n/a	Ethernet Standard	4 0.13	2 No

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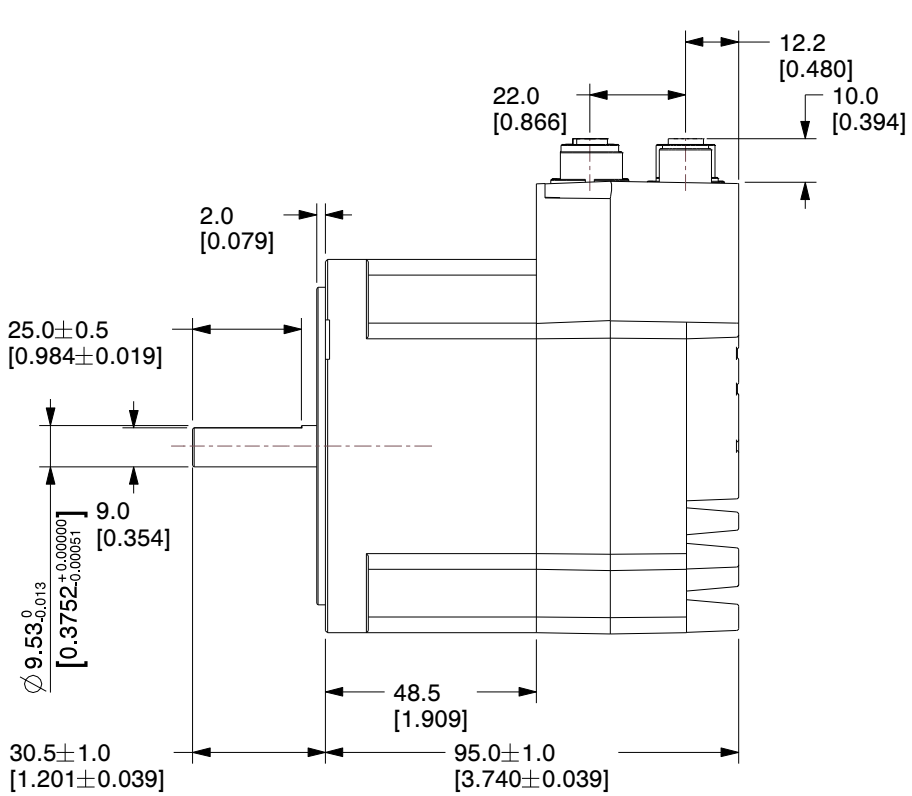
Cable information

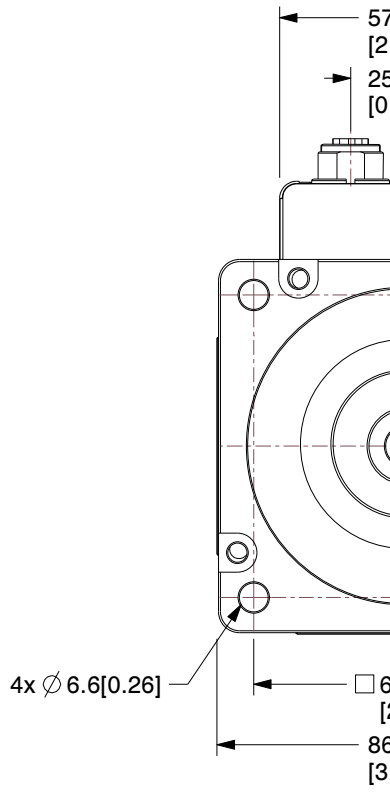
Item number Item description	Mount on	Cable con 1 +Con 1 angle Cable con 2 +Con 2 angle	Cable application Cable flexibilty	Wires no totally Wire [mm2]	Cable length [m] Connector 1 LED
WI1046-M12M4TM4T05R	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	5
M12 Cab D-code Ethernet M0°-M0°, 5m, Ø7		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No
WI1046-M12M4TM4T05T	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	5
M12 Cab D-code Ethernet M0°-M0°, 5m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Standard	0.13	No
WI1046-M12M4TM4T10R	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	10
M12 Cab D-code Ethernet M0°-M0°, 10m, Ø7		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No
WI1046-M12M4TM4T10T	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	10
M12 Cab D-code Ethernet M0°-M0°, 10m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Standard	0.13	No
WI1046-M12M4TM4T15R	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	15
M12 Cab D-code Ethernet M0°-M0°, 15m, Ø7		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No
WI1046-M12M4TM4T20R	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	20
M12 Cab D-code Ethernet M0°-M0°, 20m, Ø7		M12 4-pin male D-coded Ethernet - n/a	Robotic - 3D	0.14	No
WI1046-M12M4TM4T20T	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet	4	20
M12 Cab D-code Ethernet M0°-M0°, 20m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Standard	0.13	No
WI1046-M12M4V02TRJ45	Connector 3	M12 4-pin male D-coded Ethernet - 90° Angled	Ethernet	4	2
M12 Cab D-code Ethernet M90°-RJ45, 2m, Ø5		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4V05TRJ45	Connector 3	M12 4-pin male D-coded Ethernet - 90° Angled	Ethernet	4	5
M12 Cab D-code Ethernet M90°-RJ45, 5m, Ø6		RJ45 male - n/a	Standard	0.13	No
WI1046-M12M4VM4T.6N	Connector 3	M12 4-pin male D-coded Ethernet - 90° Angled	Ethernet	4	0.6
M12 Cab D-code Ethernet M90°-M0°, 0,6m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Standard	0.13	No
WI1046-M12M4VM4V.6N	Connector 3	M12 4-pin male D-coded Ethernet - 90° Angled	Ethernet	4	0.6
M12 Cab D-code Ethernet M90°-M90°, 0,6m, Ø6		M12 4-pin male D-coded Ethernet - n/a	Standard	0.13	No
WI1048-M12M4TTR1	Connector 3	M12 4-pin male D-coded Ethernet - 180° Straight	Ethernet		Connector
M12 Con 4 p Male D Code Ethernet PressLock		- n/a	n/a		No
WI1005-M12M17SAA01	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 1 Without wire		n/a - n/a	n/a	n/a	No
WI1005-M12M17SAA01W	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 1, with wire 1,2m		n/a - n/a		n/a	No
WI1005-M12M17SAA02	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 2 Without wire		n/a - n/a	n/a	n/a	No
WI1005-M12M17SAA03	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 3 Without wire		n/a - n/a	n/a	n/a	No
WI1005-M12M17SAA04	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 4 Without wire		n/a - n/a	n/a	n/a	No
WI1005-M12M17SAA05	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 5 Without wire		n/a - n/a	n/a	n/a	No
WI1005-M12M17SAA06	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 6 Without wire		n/a - n/a	n/a	n/a	No
WI1005-M12M17SAA06W	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 6 with wire 1,2m		n/a - n/a		n/a	No
WI1005-M12M17SAA07	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 7 Without wire		n/a - n/a	n/a	n/a	No
WI1005-M12M17SAA08	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 8 Without wire		n/a - n/a	n/a	n/a	No
WI1005-M12M17SAA09	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 9 Without wire		n/a - n/a	n/a	n/a	No
WI1005-M12M17SAA10	Connector 4	M12 17-pin male A-coded - 180° Straight	Communication	n/a	Connector
M12 17-pin male Axis 10 Without wire		n/a - n/a	n/a	n/a	No
WI1008-M12M17SR1	Connector 4	M12 17-pin male A-coded - 180° Straight	CANopen/DeviceNet	n/a	Connector
M12 Con 17p Male 0° Metal housing 5.4-8.2mm cable		- n/a	n/a	n/a	No
WI1009-M12M17T01N	Connector 4	M12 17-pin male A-coded - 180° Straight	Basic I/O, Com	17	1
M12 Shl Cable 1m 17p Mal 0° MISxx,Ex41 twisted		Open Ended - n/a	Standard	0.061	No
WI1009-M12M17T05N	Connector 4	M12 17-pin male A-coded - 180° Straight	Basic I/O, Com	17	5

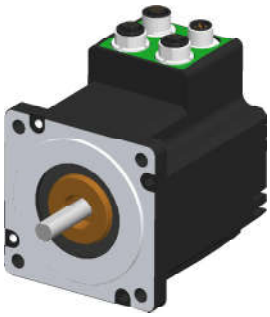
MIS340C12ECH485 Int.Step 12-72VDC, EtherCAT, AbsC-L

Cable information

Item number Item description	Mount on	Cable con 1 +Con 1 angle Cable con 2 +Con 2 angle	Cable application Cable flexibilty	Wires no totally Wire [mm2]	Cable length [m] Connector 1 LED
M12 Shl Cable 5m 17p Mal 0° MISxx,Ex41 twisted		Open Ended - n/a	Standard	0.061	No
WI1009-M12M17T10R	Connector 4	M12 17-pin male A-coded - 180° Straight	Basic I/O, Com	17	10
M12 Shl Cable 10m 17p Mal 0° MISxx,Ex41 twisted		Open Ended - n/a	Robotic - 3D	0.061	No
WI1009-M12M17T20N	Connector 4	M12 17-pin male A-coded - 180° Straight	Basic I/O, Com	17	20
M12 Shl Cable 20m 17p Mal 0° MISxx,Ex41 twisted		Open Ended - n/a	Standard	0.061	No
WI1009-M12M17TF17T.5	Connector 4	M12 17-pin male A-coded - 180° Straight	Basic I/O, Com	17	0.5
M12 Shl Cable.5m Male17p0°-Female 17p0° twist pair		M12 17-pin female A-coded - n/a	Standard	0.061	No
WI1009-M12M17TF17T01	Connector 4	M12 17-pin male A-coded - 180° Straight	Basic I/O, Com	17	1
M12 Shl Cable 1m Male17p0°-Female 17p0° twist pair		M12 17-pin female A-coded - n/a	Standard	0.061	No
WI1009-M12M17TF17T02	Connector 4	M12 17-pin male A-coded - 180° Straight	Basic I/O, Com	17	2
M12 Shl Cable 2m Male17p0°-Female 17p0° twist pair		M12 17-pin female A-coded - n/a	Standard	0.061	No
WI1009-M12M17TF17T04	Connector 4	M12 17-pin male A-coded - 180° Straight	Basic I/O, Com	17	4
M12 Shl Cable 4m Male17p0°-Female 17p0° twist pair		M12 17-pin female A-coded - n/a	Standard	0.061	No
WI1009-M12M17V05N	Connector 4	M12 17-pin male A-coded - 90° Angled	Basic I/O, Com	17	5
M12 Shl Cable 5m 17p Mal 90° MISxx,Ex41 twisted		Open Ended - n/a	Standard	0.061	No
WI1009-M12M17V05R	Connector 4	M12 17-pin male A-coded - 90° Angled	Basic I/O, Com		5
M12 Shl Cable 5m 17p Mal 90° MISxx,Ex41 twisted		- n/a	Robotic - 3D		No
WI1009-M12M17V10N	Connector 4	M12 17-pin male A-coded - 90° Angled	Basic I/O, Com	17	10
M12 Shl Cable 10m 17p Mal 90° MISxx,Ex41 twisted		Open Ended - n/a	Standard	0.061	No
WI1013-M12M17TF4T.4N	Connector 4	M12 17-pin male A-coded - 180° Straight		4	0.45
M12 17pM, 0.45m M8-4pF Shl for MAB MIS		M08 4-pin female - n/a	Standard	0.13	No
WI1013-M12M17TF4TXAA	Connector 4	M12 17-pin male A-coded - 180° Straight			0.45/2
M12 17pM, 0.45m M8-4pF Shl for MAB + 2m cable MIS		M08 4-pin female - n/a	Standard		No
RS485-M12-1-5-17	Connector 4 RS485	-			
RS485 M12-17pin DSub, 5m v1.1		-			
RS232-USB-M12M5M8M17	RS232 converter M5M8M17	-			
USB to RS232 isolated adaptor, M12 Male		-			
RS485-USB-M12M5M8M17	RS485 converter M5M8M17	-			
USB to RS485 isolated adaptor, M12 Male		-			







NOTES:

1. Operation Modes : Passive, Position, Gear, Velocity, Zero search mo
type 1, type 2 and torque, Cyclic Synchronous Position mode (CSP)
2. Tolerance for torque and power is ±10%.
3. Shaft - AISI 303 Stainless steel.
4. Encoder Type: Internal, magnetic, absolute multiturn Closed loop rea
Resolution per rev.: Displayed: 409600 counts - internal: 4096 counts.