









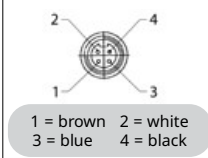


Accessories for DeviceNet™

The modules on either side of the system must be provided with terminating resistors (L)

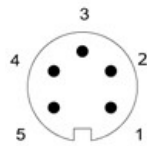
N°	Accessories	Description	Part Number (Europe)	Part Number (Americas)
M12 Backplane extension cables with SPEEDCON connector technology				
G		5 pin straight 7/8-16 UN female network connector, Field Wireable	88161930	MC05F90000000000
		5 pin straight 7/8-16 UN female network connector, Single Ended Cable - Shielded	5 m	MC0505MGD0000000
			10 m	MC0510MGD0000000
		5 Pin M12 Straight female network connector, Single Ended Cable - Shielded	5 m	TC0505MGD0000000
			10 m	TC0510MGD0000000
H		5 pin straight 7/8-16 UN male network connector, Field Wireable	88161931	MA05F90000000000
F		T-connector 7/8-16 UN, 5 male / female / female pins, MINI 3 Way "T"	88161932	MC0500000MT05000
L1		Terminating resistor 7/8-16 UN female plug 120 ohms	88161933	-
L2		Terminating resistor 7/8-16 UN male plug 120 ohms	88161934	MA05TR0000000000
		Terminating resistor M12 male plug	-	TA05TR0000000000
J		4 pin straight female cable connector 7/8", supply 24	230-1003	-
		4 pin elbow female cable connector 7/8", supply 24 V	230-1001	-
		4 pin elbow female cable connector 7/8" with 9.15 m supply 24 V DC	230-950	-
		7/8" MINI Straight 5 Pin Female Single Ended Cable, Euro Color Code	5 m	MC0505MAG0000000
			10 m	MC0510MAG0000000
		7/8" MINI 90° 5 Pin Female Single Ended Cable, Euro Color Code	5 m	MD0505MAG0000000
			10 m	MD0510MAG0000000



(K) Cable to be ordered separately.

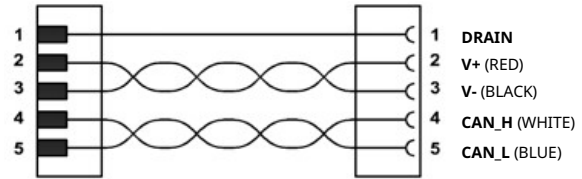
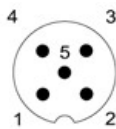
**MINI Cable -
Pin Out/Color Code**

(Male View)



**M12 Cable -
Pin Out/Color Code**

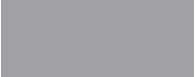
(Male View)



Technical Data	Cable	T & TR	Field Wireable
Molded Body/Insert	PVC	PVC	Body = Glass Filled Polyamide
Coupling Nut	Nickel Plated Brass or Anodized Aluminum	Clear Anodized Aluminum	Black Anodized Aluminum
Cable Jacket Material	PVC	N/A	N/A
Cable O.D.	MINI = 8mm M12 = 8mm	N/A	5 – 13mm - One size fits all
Voltage Rating (Nominal)	150 Volts	T = 300 Volts	600 Volts
Current Rating	MINI = 4.0 Amps MR = 3.0 Amps	T = 8.0 Amps TR = NA	8.0 Amps
Degree of Protection	IP65 (mated)	IP65 (mated)	IP65 (mated)
Operating Temperature	-40 °C to 80 °C (-40 °F to 176 °F)	-40 °C to 105 °C (-40 °F to 221 °F)	-40 °C to 90 °C (-40 °F to 194 °F)
Conductor Gauge	22 AWG Power 24 AWG Signal	N/A	16 – 22 AWG
Bend Radius Minimum	Cable = 72mm	N/A	N/A
Wire Connection	NA	N/A	Screw Terminal

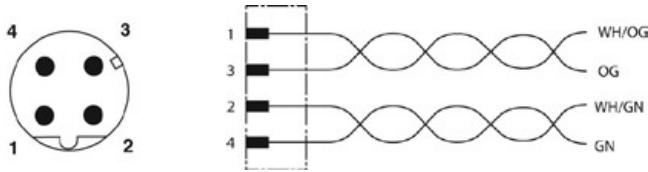
Accessories for Modbus® TCP/IP

Accessory	Description		Part Number (Europe)	Part Number (Americas)
	M12 Straight 4 Pin Male D-Coded to Male RJ45 network Cable - Shielded	5m	QA0405MK0VA04000	
		10m	QA0410MK0VA04000	
	M12 Straight 4 Pin Male D-Coded Single Ended Cable	5m	-	QA0405MK000000000
		10m	-	QA0410MK000000000
	M12 Straight 4 Pin Male D-Coded Double Ended Cable	5m	-	QA0405MK0QA04000
		10m	-	QA0410MK0QA04000
	M12 Straight 4 Pin Male D-Coded to RJ45 Female Socket Converter	0.2m	-	QA04D2MK0VC04000
	M12 Straight 4 Pin Male D-Coded Field Wireable network Connector PG 9 Cable Gland - Screw Terminal		QA04F200000000000	
	M12 Straight 4 Pin Male D-Coded Field Wireable Connector PG 9 Cable Gland - IDC		-	QA04F20000000071N
	RJ45 Field Wireable Connector PG 9 Cable Gland - IDC		-	VA08F20000000071N
	4 pin straight female cable connector 7/8", supply 24 V DC		230-1003	-
	4 pin elbow female cable network connector 7/8" supply 24 V DC		230-1001	-
	4 pin elbow female cable connector 7/8" with 9.15 m cable, supply 24 V DC	 <p>1 = brown 2 = white 3 = blue 4 = black</p>	230-950	-



M12 D-Coded Cable -
Pin Out/Color Code

(Male View)



Technical Data	Cable	RJ45 Field Wireable	M12 Field Attachable
Molded Body/Insert	TPU, PA, PA66	Housing = PA Carrier = PC	Body = Nickel Plated Zinc Insert = PA 66
Coupling Nut	Nickel Plated Zinc or Brass	NA	Nickel Plated Brass
Cable Jacket Material	PUR or PVC	NA	NA
Cable O.D.	0.67 to 8.0mm	4.5 to 8.0mm	6.0 to 8.0mm
Voltage Rating (Nominal)	42 Volts	NA	60 Volts
Current Rating	1.5 Amps	1.75 Amps	Screw 4.0 Amps IDC 1.75 Amps
Degree of Protection	IP65 (mated)	IP20	IP 65 (mated)
Operating Temperature	-20 °C to 60 °C (-4 °F to 140 °F)	-20 °C to 70 °C (-4 °F to 158 °F)	-40 °C to 85 °C (-40 °F to 185 °F)
Conductor Gauge	26 & 24 AWG	26 – 22 AWG Solid/Stranded	Screw 24 – 18 AWG IDC 26 – 22 AWG
Bend Radius	40mm	NA	NA
Wire Connection	NA	IDC	IDC, Screw Terminal

Accessories for PROFIBUS™ DP

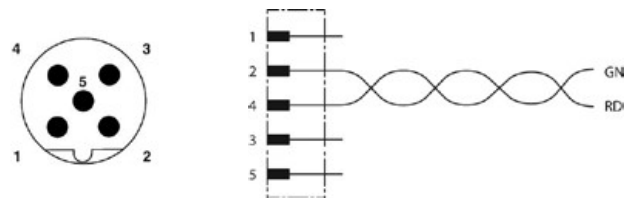
The modules on either side of the system must be provided with terminating resistors ^(H)

N°	Accessory	Description	Part Number (Europe)	Part Number (Americas)
F		T-connector M12-B, 5 female / male / male pins (Profibus 12Mb max)	88100712	-
G		M12-B connector, 5 female pins - for cable dia. 6 - 8 mm (Profibus 12Mb max)	88100713	RC05F200P0000000
		M12 Straight 5 Pin Female Reverse Key Single Ended Cable - Shielded	5m	RC0505MHP0000000
			10m	RC0510MHP0000000
L		M12-B connector, 5 male pins - for cable dia. 6 - 8 mm (Profibus 12Mb max)	88100714	RA05F200P0000000
		M12 Straight 5 Pin Female Reverse Key Single Ended Cable - Shielded	5m	RA0505MHP0000000
			10m	RA0510MHP0000000
		M12 Straight 5 Pin MALE TO FEMALE Reverse Key EXTENSION CABLE	5m	RC0505MHPRC05000
			10m	RC0510MHPRC05000
H		Terminating resistor M12-B - male plug	88100716	RA05TR0000000000
J		5 pin straight female cable connector 7/8"	MC05F900000000000	-
		5 pin elbow female cable connector 7/8"	MD05F200000000000	-
		7/8" MINI Straight 5 Pin Female Single Ended Cable, Euro Color Code	5m	MC0505MAG0000000
			10m	MC0510MAG0000000
		7/8" MINI 90° 5 Pin Female Single Ended Cable, Euro Color Code	5m	MD0505MAG0000000
			10m	MD0510MAG0000000
		Dust cover - M12 female	88157773	-

(K) Cable to be ordered separately.

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M12 Reverse Key B-Coded Cable -
Pin Out/Color Code (Male View)

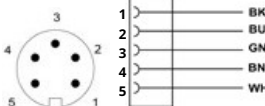


Technical Data	Cable	RJ45 Field Attachable	M12 Field Attachable
Molded Body/Insert	TPU	TR = TPU	Body = Nickel Plated Zinc Insert = PA 66
Coupling Nut	Nickel Plated Zinc	Nickel Plated Zinc or Brass	Nickel Plated Brass
Cable Jacket Material	PUR	N/A	N/A
Cable O.D.	7.4 mm	N/A	8.5 mm Max.
Voltage Rating (Nominal)	250 Volts	60 Volts	60 Volts
Current Rating	4.0 Amps	4.0 Amps	4.0 Amps
Degree of Protection	IP65 (mated)	IP65 (mated)	IP 65 (mated)
Operating Temperature	-20 °C to 80 °C (-4 °F to 176 °F)	-10 °C to 60 °C (14 °F to 140 °F)	-40 °C to 85 °C (-40 °F to 185 °F)
Conductor Gauge	24 AWG	N/A	18 AWG Maximum
Bend Radius	Cable = 78mm	N/A	N/A
Wire Connection	N/A	N/A	Screw Terminal

Accessories for PROFINET™

Accessory	Description		Part Number (Europe)	Part Number (Americas)
	M12 Straight 4 Pin Male D-Coded to Male RJ45 Cable - Shielded	5m	QA0405MK0VA04000	QA0405MR0VA04000
		10m	QA0410MK0VA04000	QA0410MR0VA04000
	M12 Straight 4 Pin Male D-Coded Single Ended Cable	5m	-	QA0405MR000000000
		10m	-	QA0410MR000000000
	M12 Straight 4 Pin Male D-Coded Double Ended Cable	5m	-	QA0405MR0QA04000
		10m	-	QA0410MR0QA04000
	M12 Straight 4 Pin Male D-Coded to RJ45 Female Socket Convertor	0.2m	-	QA04D2MK0VC04000
	M12 Straight 4 Pin Male D-Coded Field Wireable Connector PG 9 Cable Gland - Screw Terminal	QA04F200000000000		
	M12 Straight 4 Pin Male D-Coded Field Wireable Connector PG 9 Cable Gland - IDC	-	QA04F200R000071N	
	5 pin straight female Field Wireable cable connector 7/8"	MC05F900000000000		-
	5 pin elbow female Field Wireable cable connector 7/8"	MD05F200000000000		-
	RJ45 Field Wireable Connector PG 9 Cable Gland	-	VA08F200R000071N	
	7/8" MINI Straight 5 Pin Female Single Ended Cable, Euro Color Code	5m	-	MC0505MAG000000000
		10m	-	MC0510MAG000000000
	7/8" MINI 90° 5 Pin Female Single Ended Cable, Euro Color Code	5m	-	MD0505MAG000000000
		10m	MD0510MAG000000000	

male view




Server web page

Current Configuration

Module	Part No.	Description	Details	Activity
Node	240-181	EtherNet Communications Module	<input type="checkbox"/> Show Details	<div>Close all Details</div> ✓
Valve Driver	219-828	Valve Driver Output Module	<input type="checkbox"/> Show Details	<div>Close all Details</div> ✓
ARM	240-182	Auto Recovery Module	<input type="checkbox"/> Show Details	<div>Close all Details</div> ✓
No. 1	240-207	16 Outputs PNP Digital M12 x 8	<input type="checkbox"/> Show Details	<div>Close all Details</div> ✓
No. 2	240-211	8 Inputs / 8 Outputs PNP Digital M12 x 8	<input type="checkbox"/> Show Details	<div>Close all Details</div> ✓
No. 3	240-241	Sub-Bus Valve Driver	<input type="checkbox"/> Show Details	<div>Close all Details</div> ✓
No. 4	240-205	16 Inputs PNP Digital M12 x 8	<input checked="" type="checkbox"/> Show Details	<div>Close all Details</div> !

Firmware Revision: 2.021



PNP Inputs:
I/O Mapping Input (Starting) Byte: 15

Short Circuit on Connector:
I/O Mapping Diagnostics (Starting) Byte: 17

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☐ Show Error/Event Log

M12 D-Coded Cable -
Pin Out/Color Code

(Male View)


The diagram shows the male view of an M12 D-coded connector with four pins numbered 1 to 4. To the right, a wire harness is shown with four wires color-coded and labeled: 1 (black) to YE, 2 (white) to WH, 3 (green) to OG, and 4 (blue) to BU.

Technical Data	Cable	RJ45 Field Attachable	M12 Field Attachable
Molded Body/Insert	TPU	Housing = PA Carrier = PC	Body = Nickel Plated Zinc Insert = PA 66
Coupling Nut	Nickel Plated Zinc	N/A	Nickel Plated Brass
Cable Jacket Material	PVC	N/A	N/A
Cable O.D.	6.5 to 7.4mm	Accepts 4.5 to 8.0mm	Accepts 6.0 to 8mm
Voltage Rating (Nominal)	250 Volts	N/A	60 Volts
Current Rating	4.0 Amps	1.75 Amps	Screw 4.0 Amps IDC 1.75 Amps
Degree of Protection	IP65 (mated), RJ45 – IP20	IP20	IP 65 (mated)
Operating Temperature	-25 °C to 60 °C (-13 °F to 140 °F)	-10 °C to 60 °C (14 °F to 140 °F)	-40 °C to 85 °C (-40 °F to 185 °F)
Conductor Gauge	22 & 24 AWG	22 AWG Solid/Stranded	Screw 24-18 AWG IDC 26-22 AWG
Bend Radius Minimum	19.5mm (fixed) 45.5mm (Flexible)	N/A	N/A
Wire Connection	N/A	IDC	Screw Terminal, IDC

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AVENTICS

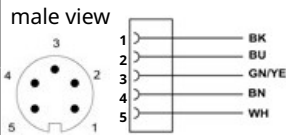
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EMERSON

19

Accessories for Ethernet POWERLINK®

Accessory	Description		Part Number (Europe)	Part Number (Americas)
	M12 Straight 4 Pin Male D-Coded to Male RJ45 Cable - Shielded	5m	QA0405MK0VA04000	QA0405MS0VA04000
		10m	QA0410MK0VA04000	QA0410MS0VA04000
	M12 Straight 4 Pin Male D-Coded to Male RJ45 Cable - Shielded	5m	-	QA0405MS0QA04000
		10m	-	QA0410MS0QA04000
	M12 Straight 4 Pin Male D-Coded to RJ45 Female Socket Converter	0.2m	-	QA04D2MK0VC04000
	M12 Straight 4 Pin Male D-Coded Field Wireable Connector PG 9 Cable Gland - Screw Terminal		QA04F20000000000	
	M12 Straight 4 Pin Male D-Coded Field Wireable Connector PG 9 Cable Gland - IDC		-	QA04F200R000071N
	5 pin straight female Field Wireable cable connector 7/8"		MC05F90000000000	-
	5 pin elbow female Field Wireable cable connector 7/8"		MD05F20000000000	-
	RJ45 Field Wireable Connector		-	VA08F200R000071N
	7/8" MINI Straight 5 Pin Female Single Ended Cable, Euro Color Code	5m	-	MC0505MAG0000000
		10m	-	MC0510MAG0000000
	7/8" MINI 90° 5 Pin Female Single Ended Cable, Euro Color Code	5m	-	MD0505MAG0000000
		10m	MD0510MAG0000000	

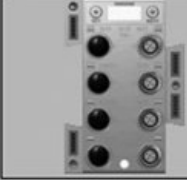


Server web page

Current Configuration

Module	Part No.	Description	Details	Activity
Node	240-181	EtherNet Communications Module	<input type="checkbox"/> Show Details	<button>Close all Details</button> ✓
Valve Driver	219-828	Valve Driver Output Module	<input type="checkbox"/> Show Details	<button>Close all Details</button> ✓
ARM	240-182	Auto Recovery Module	<input type="checkbox"/> Show Details	<button>Close all Details</button> ✓
No. 1	240-207	16 Outputs PNP Digital M12 x 8	<input type="checkbox"/> Show Details	<button>Close all Details</button> ✓
No. 2	240-211	8 Inputs / 8 Outputs PNP Digital M12 x 8	<input type="checkbox"/> Show Details	<button>Close all Details</button> ✓
No. 3	240-241	Sub-Bus Valve Driver	<input type="checkbox"/> Show Details	<button>Close all Details</button> ✓
No. 4	240-205	16 Inputs PNP Digital M12 x 8	<input checked="" type="checkbox"/> Show Details	<button>Close all Details</button> !

Firmware Revision: 2.021



PNP Inputs:
I/O Mapping Input (Starting) Byte: 15

Short Circuit on Connector:
I/O Mapping Diagnostics (Starting) Byte: 17

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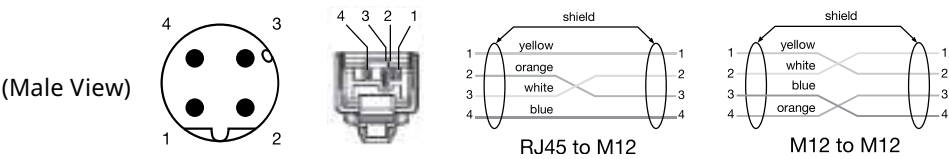
F

G

H

☐ Show Error/Event Log

M12 D-Coded Cable & RJ45
Pin Out/Color Code






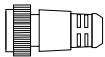







Technical Data	Cable	RJ45 Field Attachable	M12 Field Attachable
Molded Body/Insert	N/A	Housing = PA Carrier = PC	Body = Nickel Plated Zinc Insert = PA 66
Coupling Nut	Nickel Plated Zinc or Brass	N/A	Nickel Plated Brass
Cable Jacket Material	PUR	N/A	N/A
Cable O.D.	6.5mm	Accepts 4.5 to 8.0mm	Accepts 6.0 to 8mm
Voltage Rating (Nominal)	N/A	N/A	60 Volts
Current Rating	N/A	1.75 Amps	Screw 4.0 Amps IDC 1.75 Amps
Degree of Protection	IP65 (mated), RJ45 – IP20	IP20	IP 65 (mated)
Operating Temperature	-25 °C to 60 °C (-13 °F to 140 °F)	-10 °C to 60 °C (14 °F to 140 °F)	-40 °C to 85 °C (-40 °F to 185 °F)
Conductor Gauge	22 AWG	22 AWG Solid/Stranded	Screw 24 – 18 AWG IDC 26-22 AWG
Bend Radius Minimum	45.5mm	N/A	N/A
Wire Connection	N/A	IDC	Screw Terminal, IDC

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Accessories for CANopen®

The modules on either side of the system must be provided with terminating resistors ^(H)

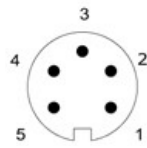
	Accessory	Description	Part Number (Europe)	Part Number (Americas)
G		5 pin straight 7/8-16 UN female network connector, Field Wireable	88161930	MC05F90000000000
		5 pin straight 7/8-16 UN female network connector, Single Ended Cable - Shielded	5m	MC0505MGD00000000
			10m	MC0510MGD00000000
		5 Pin M12 Straight female network connector, Single Ended Cable - Shielded	5m	TC0505MGD00000000
			10m	TC0510MGD00000000
H		5 pin straight 7/8-16 UN male network connector, Field Wireable	88161931	MA05F90000000000
F		T-connector 7/8-16 UN, 5 male / female / female pins, MINI 3 Way "T"	88161932	MC0500000MT05000
L1		Terminating resistor 7/8-16 UN female plug 120 ohms	88161933	-
L2		Terminating resistor 7/8-16 UN male plug 120 ohms	88161934	MA05TR0000000000
		Terminating resistor M12 male plug	-	TA05TR0000000000
J		4 pin straight female cable connector 7/8", supply 24	230-1003	-
		4 pin elbow female cable connector 7/8", supply 24 V	230-1001	-
		4 pin elbow female cable connector 7/8" with 9.15 m supply 24 V DC	230-950	-

(K) Cable to be ordered separately.

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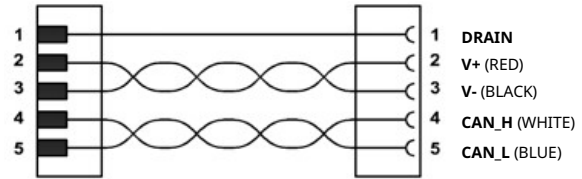
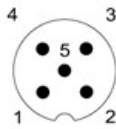
**MINI Cable -
Pin Out/Color Code**

(Male View)



**M12 Cable -
Pin Out/Color Code**

(Male View)



Technical Data	Cable	T & TR	Field Wireable
Molded Body/Insert	PVC	PVC	Body = Glass Filled Polyamide
Coupling Nut	Nickel Plated Brass or Anodized Aluminum	Clear Anodized Aluminum	Black Anodized Aluminum
Cable Jacket Material	PVC	N/A	N/A
Cable O.D.	MINI = 8mm M12 = 8mm	N/A	5 – 13mm - One size fits all
Voltage Rating (Nominal)	150 Volts	T = 300 Volts	600 Volts
Current Rating	MINI = 4.0 Amps MR = 3.0 Amps	T = 8.0 Amps TR = NA	8.0 Amps
Degree of Protection	IP65 (mated)	IP65 (mated)	IP65 (mated)
Operating Temperature	-40 °C to 80 °C (-40 °F to 176 °F)	-40 °C to 105 °C (-40 °F to 221 °F)	-40 °C to 90 °C (-40 °F to 194 °F)
Conductor Gauge	22 AWG Power 24 AWG Signal	N/A	16 – 22 AWG
Bend Radius Minimum	Cable = 72mm	N/A	N/A
Wire Connection	NA	N/A	Screw Terminal

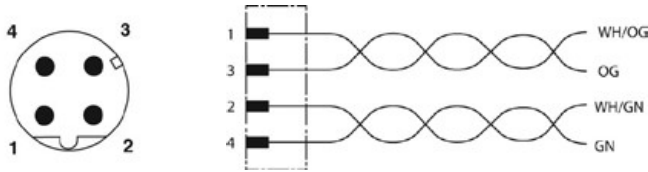
Accessories for EtherNet/IP™ DLR

Accessory	Description		Part Number (Europe)	Part Number (Americas)
	M12 Straight 4 Pin Male D-Coded to Male RJ45 network Cable - Shielded	5m	QA0405MK0VA04000	
		10m	QA0410MK0VA04000	
	M12 Straight 4 Pin Male D-Coded Single Ended Cable	5m	-	QA0405MK000000000
		10m	-	QA0410MK000000000
	M12 Straight 4 Pin Male D-Coded Double Ended Cable	5m	-	QA0405MK0QA04000
		10m	-	QA0410MK0QA04000
	M12 Straight 4 Pin Male D-Coded to RJ45 Female Socket Connector	0.2m	-	QA04D2MK0VC04000
	M12 Straight 4 Pin Male D-Coded Field Wireable network Connector		QA04F200000000000	
	M12 Straight 4 Pin Male D-Coded Field Wireable Connector PG 9 Cable Gland - IDC		-	QA04F20000000071N
	RJ45 Field Wireable Connector PG 9 Cable Gland - IDC		-	VA08F20000000071N
	4 pin straight female cable connector 7/8", suply 24 V DC		230-1003	-
	4 pin elbow female cable connector 7/8", suply 24 V DC		230-1001	-
	4 pin elbow female cable connector 7/8" with 9.15 m cable, suply 24 V DC		230-950	-

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M12 D-Coded Cable -
Pin Out/Color Code

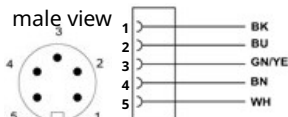
(Male View)

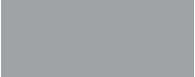


Technical Data	Cable	RJ45 Field Wireable	M12 Field Attachable
Molded Body/Insert	TPU, PA, PA66	Housing = PA Carrier = PC	Body = Nickel Plated Zinc Insert = PA 66
Coupling Nut	Nickel Plated Zinc or Brass	NA	Nickel Plated Brass
Cable Jacket Material	PUR or PVC	NA	NA
Cable O.D.	0.67 to 8.0mm	4.5 to 8.0mm	6.0 to 8.0mm
Voltage Rating (Nominal)	42 Volts	NA	60 Volts
Current Rating	1.5 Amps	1.75 Amps	Screw 4.0 Amps IDC 1.75 Amps
Degree of Protection	IP65 (mated)	IP20	IP 65 (mated)
Operating Temperature	-20 °C to 60 °C (-4 °F to 140 °F)	-20 °C to 70 °C (-4 °F to 158 °F)	-40 °C to 85 °C (-40 °F to 185 °F)
Conductor Gauge	26 & 24 AWG	26 – 22 AWG Solid/Stranded	Screw 24 – 18 AWG IDC 26 – 22 AWG
Bend Radius	40mm	NA	NA
Wire Connection	NA	IDC	IDC, Screw Terminal

Accessories for EtherCAT®

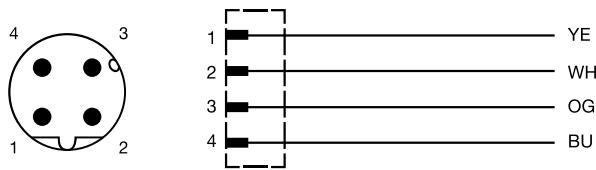
Accessory	Description		Part Number (Europe)	Part Number (Americas)
	M12 Straight 4 Pin Male D-Coded to Male RJ45 Cable - Shielded supply 24 V DC	5m	QA0405MK0VA04000	QA0405MT0VA04000
		10m	QA0410MK0VA04000	QA0410MT0VA04000
	M12 Straight 4 Pin Male D-Coded Single Ended Cable	5m	-	QA0405MT000000000
		10m	-	QA0410MT000000000
	M12 Straight 4 Pin Male D-Coded Double Ended Cable	5m	-	QA0405MT0QA04000
		10m	-	QA0410MT0QA04000
	M12 Straight 4 Pin Male D-Coded to RJ45 Female Socket Converter	0.2m	-	QA04D2MK0VC04000
	M12 Straight 4 Pin Male D-Coded Field Wireable Connector PG 9 Cable Gland - Screw Terminal	QA04F200000000000		
	M12 Straight 4 Pin Male D-Coded Field Wireable Connector PG 9 Cable Gland - IDC	-	-	QA04F200R000071N
	RJ45 Field Wireable Connector PG 9 Cable Gland - IDC	-	-	VA08F200R000071N
	5 pin straight female cable connector 7/8", supply 24 V DC	MC05F900000000000		-
	5 pin elbow female cable connector 7/8", supply 24 V DC	MD05F200000000000		-
	7/8" MINI Straight 5 Pin Female Single Ended Cable, Euro Color Code	5m	-	MC0505MAG00000000
		10m	-	MC0510MAG00000000
	7/8" MINI 90° 5 Pin Female Single Ended Cable, Euro Color Code	5m	-	MD0505MAG00000000
		10m	MD0510MAG00000000	













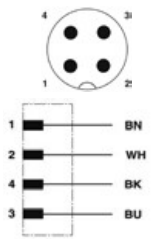

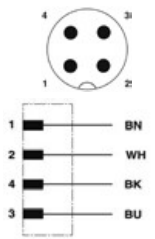





M12 D-Coded Cable -
Pin Out/Color Code

(Male View)









Technical Data	Cable	RJ45 Field Wireable	M12 Field Attachable
Molded Body/Insert	TPU/PE	Housing = PA Carrier = PC	Nickel Plated Zinc/PA 66
Coupling Nut	Nickel Plated Zinc	NA	Nickel Plated Brass
Cable Jacket Material	PVC	NA	NA
Cable O.D.	6.5mm	Accepts 4.5 to 8.0mm	Accepts 4.0 to 8mm
Voltage Rating (Nominal)	250 Volts	NA	60 Volts
Current Rating	4.0 Amps	1.75 Amps	Screw 4.0 Amps IDC 1.75 Amps
Degree of Protection	IP65 (mated), RJ45 – IP20	IP20	IP 65 (mated)
Operating Temperature	-40 °C to 70 °C (-40 °F to 158 °F)	-10 °C to 60 °C (14 °F to 140 °F)	-40 °C to 85 °C (-40 °F to 185 °F)
Conductor Gauge	22 & 24 AWG	22 AWG Solid/Stranded	Screw 24 – 18 AWG IDC 26 – 22 AWG
Bend Radius Minimum	19.5mm (fixed) 45.5mm (Flexible)	NA	NA
Wire Connection	NA	IDC	Screw Terminal, IDC

I/O Module Accessories







Accessory	Description	Part Number (Europe)	Part Number (Americas)	
	M12 Straight 4 Pin Male Field Wireable Connector, IDC Connection - PG 9 Cable Gland w/ SPEEDCON® connector technology	-	TA04F2000000081E	
	5 pin straight male M12 connector	88100330	-	
	M12 Straight 4 Pin Male Field Wireable Connector, Screw Terminal - PG 7 Cable Gland	-	TA04F10000000000	
	M12 Straight 4 Pin Male Field Wireable Connector, Screw Terminal - PG 9 Cable Gland	-	TA04F200000000000	
	5 pin elbow male M12 connector	88161927	-	
	M12 Straight 4 Pin Male Field Wireable Connector, Screw Terminal - PG 7 Cable Gland	-	TB04F100000000000	
	M12 Straight 4 Pin Male Field Wireable Connector, Screw Terminal - PG 9 Cable Gland	-	TB04F200000000000	
	Dust Cover - M12 Male	230-647		
	5 pin male DUO M12 connector for 2 inputs (2 cables, Ø3-5 mm)	88100253	-	
	M12 to M12 "Y" Splitter, 21mm Spacing	-	TA0500000JC05000	
	M12 to M8 "Y" Splitter	-	TA0400000KC03000	
	M12 SPEEDCON connector Straight 4 Pin Male Single Ended Cable, Euro Color Code		1.5 m	TA04E5MIE000071P
			3 m	TA0403MIE000071P
			5 m	TA0405MIE000071P
	M12 SPEEDCON connector 90° 4 Pin Male Single Ended Cable, Euro Color Code		1.5 m	TB04E5MIE000071P
			3 m	TB0403MIE000071P
			5 m	TB0405MIE000071P
	M12 Straight 4 Pin Male to Female Cable Extension		1.5 m	TC04E5MIETA0471P
			3 m	TC0403MIETA0471P
	M12 Straight 3 Pin Male to M8 3 Pin Straight Female Extension		1.5 m	TC03E5MIEPA0371P
			3 m	TC0303MIEPA0371P
	M8 3 Pin Straight Male to M8 3 Pin Straight Female Extension		1.5 m	PC03E5MIEPA0371P
			3 m	PC0303MIEPA0371P
	Replacement Terminal strip		I/O 0-7	140-1073
			I/O 8-15	140-1074
-	Keying Element for terminal strip		140-1076	
-	Keying Element for Module		140-1077	
	IO-Link Class A to Class B T-connector		R412028657	

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N° *	Accessory	Description		Part Number (Europe)	Part Number (Americas)	
M12 Backplane extension cables with SPEEDCON connector technology						
A		M12 Straight 5 Pin Male to Female Backplane extension Cable - Shielded (backplane extension)	1 m	TA0501MGDTC0571P		
			5 m	TA0505MGDTC0571P		
			10 m	TA0510MGDTC0571P		
M12 Backplane field wireable connectors and cable						
A		M12 Straight 5 Pin Female Field Wireable Connector, Spring Cage PG9 Cable Gland		-	TC05F2000000071V	
		M12 Straight 5 Pin Male Field Wireable Connector, Spring Cage PG9 Cable Gland		-	TA05F2000000071V	
		M12 90° 5 Pin Female Field Wireable Connector, Spring Cage PG9 Cable Gland		-	TD05F2000000071V	
		M12 90° 5 Pin Male Field Wireable Connector, Spring Cage PG9 Cable Gland		-	TB05F2000000071V	
		Bulk Sub-bus Cable*	50 m	-	000550MGD0005000	
			100 m	-	0005A0MGD0005000	
7/8" MINI 4 Pin cables & connectors for backplane extension valve module power						
B		7/8" MINI Straight 4 Pin Female Single Ended Cable, Euro Color Code		5 m	MC0405MAC0000000	
				10 m	MC0410MAC0000000	
		7/8" MINI 90° 4 Pin Female Single Ended Cable, Euro Color Code			5 m	MD0405MAC0000000
					10 m	MD0410MAC0000000
		7/8" MINI Straight 4 Pin Female Field Wireable Connector -Cable Gland - One size fits all			230-1003	MC04F90000000000
		7/8" MINI 90° 4 Pin Female Field Wireable Connector - PG 9 Cable Gland			230-1001	MD04F20000000000

* See page 40 for reference numbers

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N° *	Accessory	Description	Part Number (Europe)	Part Number (Americas)
M12 4 Pin cables for backplane extension In/Out module power				
C		M12 to 7/8" MINI Cable for Backplane extension Power M12 Straight 4 Pin Male to 7/8" MINI 4 Pin Female Extension (distribution of the power 24V to valve systems)	1 m	TA0401MA0MC0471T
			5 m	TA0405MA0MC0471T
			10 m	TA0410MA0MC0471T
D		M12 Straight 4 Pin Male to Female Cable Extension	1 m	TC0401MAETA04000
			5 m	TC0405MAETA04000
			10 m	TC0410MAETA04000
		M12 Straight 4 Pin Male to Female Cable Extension	1 m	TC0405MAE0000000
			5 m	TC0410MAE0000000
		M12 Straight 4 Pin Male to Female Cable Extension	1 m	TD0405MAE0000000
			5 m	TD0410MAE0000000
		M12 Straight 4 Pin Female Field Wireable Connector - PG 7 Cable Gland	TC04F10000000000	
		M12 Straight 4 Pin Female Field Wireable Connector - PG 9 Cable Gland	TC04F20000000000	
		M12 90° 4 Pin Female Field Wireable Connector - PG 7 Cable Gland	TD04F10000000000	
		M12 90° 4 Pin Female Field Wireable Connector - PG 9 Cable Gland	TD04F20000000000	

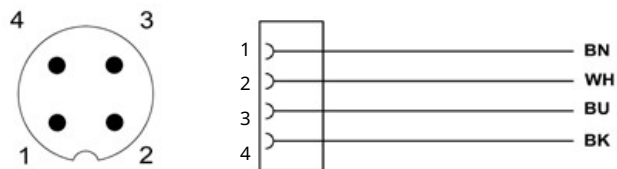
*NOTE: Length of field wired cables should not exceed the maximum length of 30 meters for total Sub-bus communications link. See appropriate technical manual for Sub-bus length requirements. The cable assemblies and Bulk cable are the only approved cables for the G3 Sub-bus link. See technical document TDG3SBWD1-0EN for proper installation and wiring of field wireable connectors.

* See page 40 for reference numbers

Pin Out and Technical Data

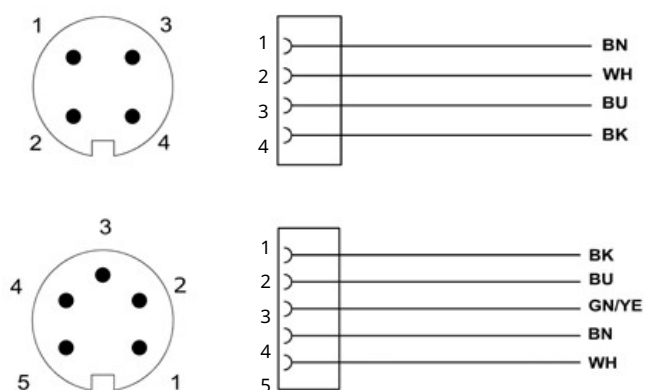
M12 Cable - Pin Out/Euro Color Code

(Male View)



7/8" MINI Cable - Pin Out/Euro Color Code

(Male View)



Technical Data	M12	7/8" MINI
Molded Body/Insert	Cable = PVC Field Wireable = Polyamide	Cable = PVC Field Wireable = Polyamide or PBT
Coupling Nut	Nickel Copper Alloy	Black Anodized Aluminum/Die Cast Zinc
Cable Jacket Material	PVC	PVC
Cable O.D.	7.4mm	7.4mm (4 Pin & 5 Pin)
Voltage Rating (Nominal)	250 V Max. @ 105 °C (221 °F)	250 V Max. @ 105 °C (221 °F)
Current Rating	Cables = 4.0 Amps Field Wireable = 4.0 Amps	Cables = 5.5 Amps Field Wireable = 8.0 Amps
Degree of Protection	IP67 (mated)	IP67 (mated)
Operating Temperature	-25 °C to 85 °C (-13 °F to 185 °F)	-40 °C to 85 °C (-40 °F to 185 °F)
Conductor Gauge	Cable = 18 AWG	Cable = 18 AWG
Bend Radius	Cable = 74mm	Cable = 74mm (4 Pin & 5 Pin)
Maximum Wire AWG	Field Wireable = 18 AWG	Field Wireable = 16 AWG
Wire Connection	Field Wireable = Screw Terminal	Field Wireable = Screw Terminal
PG 7 Range	4 – 6mm	N/A
PG 9 Range	6 – 8mm	5 – 13mm -One size fits all
PG 13.5 Range	N/A	5 – 13mm - One size fits all



M12 Cable Splitter, 2 Straight M12 Female Connectors

TA04D3MIEJC04000 – 0.3 Meter
TA04E5MIEJC04000 – 1.5 Meter
TA0403MIEJC04000 – 3.0 Meter

M12 Cable Splitter, 2 Straight M8 Female Connectors

TA04D3MIEKC03000 – 0.3 Meter
TA04E5MIEKC03000 – 1.5 Meter
TA0403MIEKC03000 – 3.0 Meter

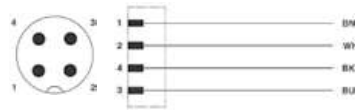
Wire Stripper Tool

140-1097

I/O Cable Connector Pin Out Diagrams

M12 Cable - Pin Out/Color Code

TA04XXMIE0000000,
TB04XXMIE0000000
(Male View)



M12 Cable - Pin Out/Color Code

TC03XXMIEPA0371P
(Male to Female View)



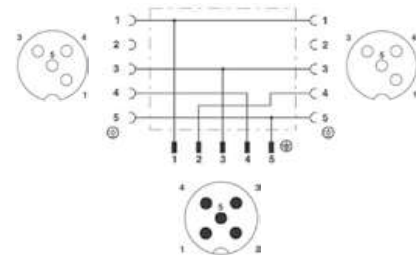
M12 Cable - Pin Out/Color Code

TC03XXMIEPA0371P
(Male to Female View)



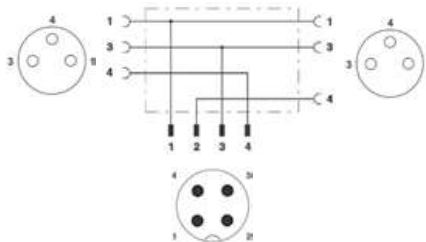
M12 to M12 "Y" Splitter - Pin Out

TA0500000JC05000
(Male to Female View)



M12 to M8 "Y" Splitter - Pin Out

TA0400000KC03000
(Male to Female View)



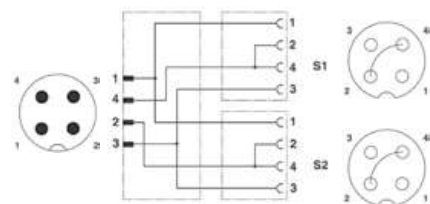
M12 Field Wireable (IDC) - Pin Out

TA04F2000000081E (SPEEDCON®)
(Male View)



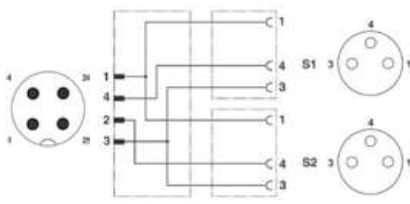
M12 to M12 Cable Splitter - Pin Out

TA04XXMIEJC04000
(Male to Female View)



M12 to M8 Cable Splitter - Pin Out

TA04XXMIEKC03000
(Male to Female View)



M8 Cable - Pin Out/Color Code

PC03XXMIEPA0371P
(Male to Female View)



NOTE:
XX denotes allowable length.
See pages 101 & 102.

Cable and Connector Technical Data

Technical Data	M12 Cables	M12/M8 Cables	M12 Connectors
Molded Body/Insert	TPU	TPU	Polyamide (or) PA 66
Coupling Nut	Nickel Plated Zinc	Nickel Plated Zinc	Nickel Plated Zinc
Cable Jacket Material	PUR	PUR	NA
Cable O.D.	4.70mm	4.70mm	PG7 4.0 to 6.0mm PG9 4.0 to 8.0mm
Voltage Rating	250 Volts	60 Volts	50 Volts
Current Rating (Cond.)	4.0 Amps	3.0 Amps	4.0 Amps
Degree of Protection	IP65 (mated)	IP65 (mated)	IP67 (mated)
Operating Temperature	-25 °C to 80 °C (-13 °F to 176 °F) (fixed instl.)	-25 °C to 80 °C (-13 °F to 176 °F) (fixed instl.)	-25 °C to 80 °C (-13 °F to 176 °F)
Conductor Gauge	22 AWG	22 AWG	22 AWG Min. 18 AWG Max.
Bend Radius	47mm	47mm	NA

Technical Data	I/O "Y" Splitter	I/O Cable Splitter	M8 Cables
Molded Body/Insert	TPU	TPU	TPU
Coupling Nut	Nickel Plated Zinc	Nickel Plated Zinc	Nickel Plated Zinc
Cable Jacket Material	NA	PUR	PUR
Cable O.D.	NA	4.40mm	1.17mm
Voltage Rating	60 Volts	60 Volts	60 Volts
Current Rating (Cond.)	3.0 Amps	3.0 Amps	4.0 Amps
Degree of Protection	IP67 (mated)	IP67 (mated)	IP67 (mated)
Operating Temperature	-25 °C to 90 °C (-13 °F to 194 °F)	-25 °C to 80 °C (-13 °F to 176 °F)	-25 °C to 90 °C (-13 °F to 194 °F)
Conductor Gauge	NA	22 AWG or 24 AWG	24 AWG
Bend Radius	NA	44mm	44mm

Technical Data	Wire Stripper
Use with	PVC Insulation
Stripping Range	28 AWG to 10 AWG
Cutting Range (Flexible)	10 AWG
Cutting Range (Rigid)	12 AWG