



Introducing M8/M12 Connector System

TE Connectivity's M8/M12 Connector System for machine industrial automation and control applications provides a solution that safely and reliably ensures the communication in industrial environments. Designed to IEC-61076-2-101, this connector system also finds applications outside of its traditional industries where a compact, reliable connection system with environmental protection is required. TE's solution includes an extensive connector range of receptacles, cable assemblies and IO boxes, and provides users with an interface that supports higher bandwidth needs meeting the requirements of up to 10 Gb/s.

TE's broad product portfolio provides customers with shielded and unshielded cable assembly options in both Cat5e and Cat6A cable types. For re-wiring on site, a range of field serviceable connectors are provided that include male and female versions in 3, 4, 5, 8 and 12 positions and Y connectors. Additional styles are available on request including alternative mounting arrangements for panel mount connectors and double ended cable assemblies.

KEY FEATURES

- X-coded connectors support higher bandwidth needs of up to 10 Gb/s
- Easily installable connector system
- Environment protection IP67 and IP68
- Connector ranges include male and female connectors in 3, 4, 5, 8 and 12 positions and Y Connectors
- Alternative mount arrangements for solder cup or PCB
- Panel Mount and distribution version available
- Shield reliable
- Quick and secure connection
- Backwards compatible

BENEFITS

- M8/M12 Connector System provides full industry standard solution including quick turn, prototype cable assemblies
- Reliable communication with reduced downtime in industrial and harsh environments.

APPLICATIONS

- Industrial Automation
- Automobile Manufacturing
- Machine Tools
- Semiconductor Manufacturing
- Factory Automation Machines
- Manufacturing of Solenoid and Sensor valves

TE Technical Support Center

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TE'S INDUSTRIAL ETHERNET PRODUCTS PLAY A VITAL ROLE IN FACTORY AUTOMATION

TE's Industrial Ethernet products are widespread throughout today's networked factories, and play a critical role in driving the efficiency of many manufacturing processes. Used extensively in material handling equipment, our industrial communications solutions are also found throughout the automotive, food and beverage industries, as well as in the many manufacturing applications of industrial robots. With the development of smaller industrial Ethernet products, TE's solutions are ideal for vision systems, common in security equipment and mail sortation devices.

CONNECTORS



TE's M8/M12 connectors continue to fill the ongoing needs for sensor connection in Industrial Machinery and Factory Automation. A connection standard for many years, these products also find applications outside of their traditional industries where a compact reliable connection system with environmental protection is required. TE's M8/M12 connector portfolio includes a full range of A, B, C, D, S, T and X-coded (up to 10 Gigabit/s) versions to serve various customer and application needs. The connectors are also available in shielded and unshielded versions, to support Gigabyte Ethernet applications.

CABLE ASSEMBLIES



TE's M8/M12 cable assemblies are available as single-ended or double-ended and as straight or angled versions. Customized cable assemblies provide a solution for your specific needs in different lengths, temperatures or flexibility and can be used in combination with TE's male/female connectors and I/O Modules.

I/O MODULES



Complementary to the M8/M12 cable assemblies and connectors, TE offers compact I/O modules for Industrial applications. The I/O modules are well accepted in the Industrial Automation industry and provide reduced cabling and increased ease of installation and maintenance.

CONNECTORS, M8

Description	Type	Polarization	Code	Part Number
Connector, straight, field installable, unshielded, screw, 3.5-5 mm cable diameter	male	3		2120954-1
Connector, 90° angled field installable, unshielded, screw, 3.5-5 mm cable diameter	male	3		2120955-1
Receptacle, straight, field installable, unshielded, screw, 3.5-5 mm cable diameter	female	3		2120956-1
Receptacle, 90° angled field installable, unshielded, screw, 3.5-5 mm cable diameter	female	3		2120957-1
Panel mount connector, Li 200 mm	male	3		2120958-1
Panel mount receptacle, Li 200 mm	female	3		2120959-1
Connector, straight, field installable, unshielded, screw, 3.5-5 mm cable diameter	male	4		1-2120954-1
Connector, 90° angled field installable, unshielded, screw, 3.5-5 mm cable diameter	male	4		1-2120955-1
Receptacle, straight, field installable, unshielded, screw, 3.5-5 mm cable diameter	female	4		1-2120956-1
Receptacle, 90° angled field installable, unshielded, screw, 3.5-5 mm cable diameter	female	4		1-2120957-1
Panel mount connector, Li 200 mm	male	4		1-2120958-1
Panel mount receptacle, Li 200 mm	female	4		1-2120959-1

CONNECTORS, M12

Description	Type	Polarization	Code	Part Number
Connector, straight, field installable, shielded, S-Code	male	3+PE	S	2120951-1
PCB mounted connector straight	male	4	A	3-2271140-2
Panel Mounted Connector with wires	male	4	A	3-2271134-2
Connector, straight, field installable, unshielded, 6-8 mm	male	4	A	3-2271110-2
Connector, straight, field installable, unshielded, 4-6 mm	male	4	A	3-2271110-1
Connector, straight, field installable, shielded, 5-8 mm	male	4	A	3-2271113-2
Connector, 90° angled field installable, unshielded, 4-6 mm	male	4	A	3-2271122-1
Connector, 90° angled field installable, unshielded, 6-8 mm	male	4	A	3-2271122-2
Connector, 90° angled field installable, shielded, 5-8 mm	male	4	A	3-2271123-2
PCB mounted connector straight	male	4	D	3-2271142-2
Panel Mounted Connector with wires	male	4	D	3-2271136-2
Connector, straight, field installable, shielded, 5-8 mm	male	4	D	3-2271115-2
Connector, 90° angled field installable, shielded, 6-8 mm	male	4	D	3-2271127-2
Panel Mount Connector, POWER, T-code, M20 x 1,5	male	4	T	2120947-1
Connector, straight, field installable, shielded, T-code	male	4	T	2120949-1
PCB mounted connector straight	male	5	A	4-2271140-2
Panel Mounted Connector with wires	male	5	A	4-2271134-2
Connector, straight, field installable, unshielded, 4-6 mm	male	5	A	4-2271110-1
Connector, straight, field installable, unshielded 6-8 mm	male	5	A	4-2271110-2
Connector, straight, field installable, shielded, 5-8 mm	male	5	A	4-2271113-2
Connector, 90° angled field installable, unshielded, 4-6 mm	male	5	A	4-2271122-1
Connector, 90° angled field installable, unshielded, 6-8 mm	male	5	A	4-2271122-2
Connector, 90° angled field installable, shielded, 5-8 mm	male	5	A	4-2271123-2
PCB mounted connector straight	male	5	B	4-2271141-2
Panel Mounted Connector with wires	male	5	B	4-2271135-2
Connector, straight, field installable, unshielded, 4-6 mm	male	5	B	4-2271112-1
Connector, straight, field installable, unshielded, 6-8 mm	male	5	B	4-2271112-2
Connector, straight, field installable, shielded, 5-8 mm	male	5	B	4-2271113-2
Connector, 90° angled field installable, unshielded, 4-6 mm	male	5	B	4-2271124-1
Connector, 90° angled field installable, unshielded, 6-8 mm	male	5	B	4-2271124-2
Connector, 90° angled field installable, shielded, 5-8 mm	male	5	B	4-2271125-2
connector field installable	male	8	X	2120952-1
Receptacle, straight, field installable, shielded, S-Code	female	3+PE	S	2120950-1
Receptacle, straight, field installable, shielded, 6-8 mm	female	4	A	3-2271117-2
Receptacle, straight, field installable, unshielded, 4-6 mm	female	4	A	3-2271116-1
Receptacle, straight, field installable, unshielded, 6-8 mm	female	4	A	3-2271116-2
Receptacle, 90° angled field installable, unshielded, 4-6 mm	female	4	A	3-2271128-1
Receptacle, 90° angled field installable, unshielded, 6-8 mm	female	4	A	3-2271128-2
Receptacle, 90° angled field installable, shielded, 5-8 mm	female	4	A	3-2271129-2
PCB mounted receptacle straight	female	4	A	3-2271143-2
Panel Mounted Receptacle with wires	female	4	A	3-2271137-2
Receptacle, straight, field installable, shielded, 5-8 mm	female	4	D	3-2271121-2

CONNECTORS, M12, continued

Description	Type	Polarization	Code	Part Number
Receptacle, 90° angled field installable, shielded, 5-8 mm	female	4	D	3-2271133-2
PCB mounted receptacle straight	female	4	D	3-2271145-2
Panel Mounted Receptacle with wires	female	4	D	3-2271139-2
Receptacle, straight, field installable, shielded, T-code	female	4	T	2120948-1
Panel Mounted Receptacle, POWER, T-Code, M20 x 1,5	female	4	T	2120946-1
Receptacle, straight, field installable, shielded, 6-8 mm	female	5	A	4-2271117-2
Receptacle, straight, field installable, unshielded, 4-6 mm	female	5	A	4-2271116-1
Receptacle, straight, field installable, unshielded, 6-8 mm	female	5	A	4-2271116-2
Receptacle, 90° angled field installable, unshielded, 4-6 mm	female	5	A	4-2271128-1
Receptacle, 90° angled field installable, unshielded, 6-8 mm	female	5	A	4-2271128-2
Receptacle, 90° angled field installable, shielded, 5-8 mm	female	5	A	4-2271129-2
PCB mounted receptacle straight	female	5	A	4-2271143-2
Panel Mounted Receptacle with wires	female	5	A	4-2271137-2
Receptacle, straight, field installable, unshielded	female	5	B	4-2271118-1
Receptacle, straight, field installable, unshielded	female	5	B	4-2271118-2
Receptacle, straight, field installable, shielded	female	5	B	4-2271119-2
Receptacle, 90° angled field installable, unshielded, 4-6 mm	female	5	B	4-2271130-1
Receptacle, 90° angled field installable, unshielded, 6-8 mm	female	5	B	4-2271130-2
Receptacle, 90° angled field installable, shielded, 6-8 mm	female	5	B	4-2271131-2
PCB mounted receptacle straight	female	5	B	4-2271144-2
Panel Mounted Receptacle with wires	female	5	B	4-2271138-2
Rear Panel Mount Wire Connector M12 X-code	female	8	X	2271195-1
Rear Panel Mount PCB connector M12 X-code	female	8	X	2232331-1

CABLE ASSEMBLIES

Type Polarization	Type	Polarization	Code	Part Number
M8 x 1.0 straight socket Pigtail, Length is 10 mtr. PVC Jacket	female	3	A	1-2273001-4
M8 x 1.0 straight socket Pigtail, Length is 5 mtr. PUR Jacket	female	3	A	2273001-3
M12 x 1.0 straight socket Pigtail, Length is 5 mtr. PVC Jacket	female	4	A	1-2273029-3
M12 x 1.0 angled socket Pigtail, Length is 5mtr. PVC Jacket	female	4	A	1-2273083-3
M12 x 1.0 angled socket Pigtail, Length is 10mtr. PVC Jacket	female	4	A	1-2273083-4
M8 x 1.0 straight socket Pigtail, Length is 5 mtr. PVC Jacket	female	3	A	1-2273001-3
M12 x 1.0 straight socket Pigtail, Length is 10 mtr. PVC Jacket	female	4	A	1-2273029-4
M8 x 1.0 straight socket Pigtail, Length is 5 mtr. PVC Jacket	female	4	A	1-2273003-3
M8 x 1.0 straight socket Pigtail, Length is 10 mtr. PUR Jacket	female	3	A	2273001-4
M8 x 1.0 straight socket Pigtail, Length is 5 mtr. PUR Jacket	female	4	A	2273003-3
M8 x 1.0 straight socket Pigtail, Length is 10 mtr. PVC Jacket	female	4	A	1-2273003-4
M8 x 1.0 straight socket Pigtail, Length is 3 mtr. PUR Jacket	female	3	A	2273001-2
M8 x 1.0 Angled socket Pigtail, Length is 5 mtr, PUR Jacket	female	3	A	2273009-3
M8 x 1.0 straight socket Pigtail, Length is 3 mtr. PVC Jacket	female	3	A	1-2273001-2
M12 x 1.0 straight socket Pigtail, Length is 3 mtr. PVC Jacket	female	4	A	1-2273029-2
Double ended, Shielded CAT 6A, Pin Connector Cable Assembly, 10Gb, M12 X-coded; 1 m	male	8	X	2241021-1
Double ended, Shielded CAT 6A, Pin Connector Cable Assembly, 10Gb, M12 X-coded; 3 m	male	8	X	2241021-3
Double ended, Shielded CAT 6A, Pin Connector Cable Assembly, 10Gb, M12 X-coded; 5 m	male	8	X	2241021-5
Double ended, Shielded CAT 6A, Pin Connector Cable Assembly, 10Gb, M12 X-coded; 10 m	male	8	X	2241021-6

I/O MODULES

Description	Type	Polarization	Code	Part Number
Distr box M12 5pos 8way PNP scrw				2273167-1
Distr box M12 5pos 8way PNP				2273162-1
Distr box M12 4pos 8way PNP PUR/PVC				2273157-2
Distr box M12 5pos 8way PNP PUR/PVC				2273163-3
Distr box M8 3pos 8way M12/12p conn				2273146-1

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