MOTORMAN HYBRID CONNECTOR

A HYBRID CONNECTIVITY SOLUTION FOR DECENTRALIZED MOTORS WITH TWO FAST ETHERNET CORES, SIGNAL AND POWER TRANSMISSION

Decentralized servo motors are widely used in many industries and are typically connected via a deterministic system and power-fed by a separate cable. Recently, motors are becoming increasingly networked via fast Ethernet, which offers the benefits of real-time control. However, this does not solve the nuisance of having dual cabling for signal and power.

TE Connectivity offers the Motorman hybrid connector, which integrates communication, signal and power transmission of locally controlled motors within a compact rectangular connector. Two fast Ethernet sockets offer the full benefits of real-time automation control, while reducing cabling complexity.

TE now also offers a Shroud version which includes a secondary locking to secure the product, and also makes the cable crimped version available for cabinet applications.

Motorman Hybrid Connector

FEATURES AND BENEFITS

- Simple diagnostic access through easy-to-open side enclosure
- Easy and safe configuration
- Lowest applied costs thanks to use of TE's MCON interconnection system and its stamped multiple contact points contacts, which are manufactured with high reproducibility.
- Robust metal enclosure fits for tough industrial environment; Plastic enclosure is economical for less critical purposes
- 2 x Cat 5e (ISO/IEC11801) connectors support industry standards and enable fast data and intelligent communication for decentralization of servo motors
- Customized coding features of insert to avoid displacement of connectors
- IP65 for use in harsh environments
- 360° Braid Shielding in the Cabinet / Panel to avoid any interference of EMC issues

APPLICATIONS

- I/O connection on de-central servo motors
- I/O connection on AC servo motors with PCB
- I/O connection on cabinets and panels
- Drives (amplifiers)
- Packaging, assembly, woodworking or food processing machines

STANDARDS & SPECIFICATIONS

- Cat 5e (ISO/IEC11801)
- VDE
- CSA-C22.2
- UL 508C (cable side)
- UL 1977 (motor side) Category P V V A 2
- UL E 346616 for 90° version and UL E 28476 for 180° version
- TE supports the OEM in the process to get UL and VDE approvals for de-central servo motors with the Motorman hybrid connector

PERFORMANCE DATA

Environmental:

- IP65 (water & dust protection)
- 50 g (physical shock)
- 156 N cable strain relief
- Electro-magnetic compatibility (EMC protection) in metal enclosures

TE Connectivity's Motorman solution now also offers a shroud version that allows cable crimbed versions for cabinets

Electrical:

- Rated Voltage: 900 V
- Operating temperature:
  - 40°C till + 85°C Plastic Version
  - 40°C till + 85°C Metal Version
- 1 x Ground (protection earth)
- 1 x Braid
- 5 x 2 A / 50 V
- 3 x 20 A + PE / 900 V and 2 x 20 A / 50 V
- Durability: 20 Mating cycles

Communication:

- 2 x Cat 5e (AWG 22)

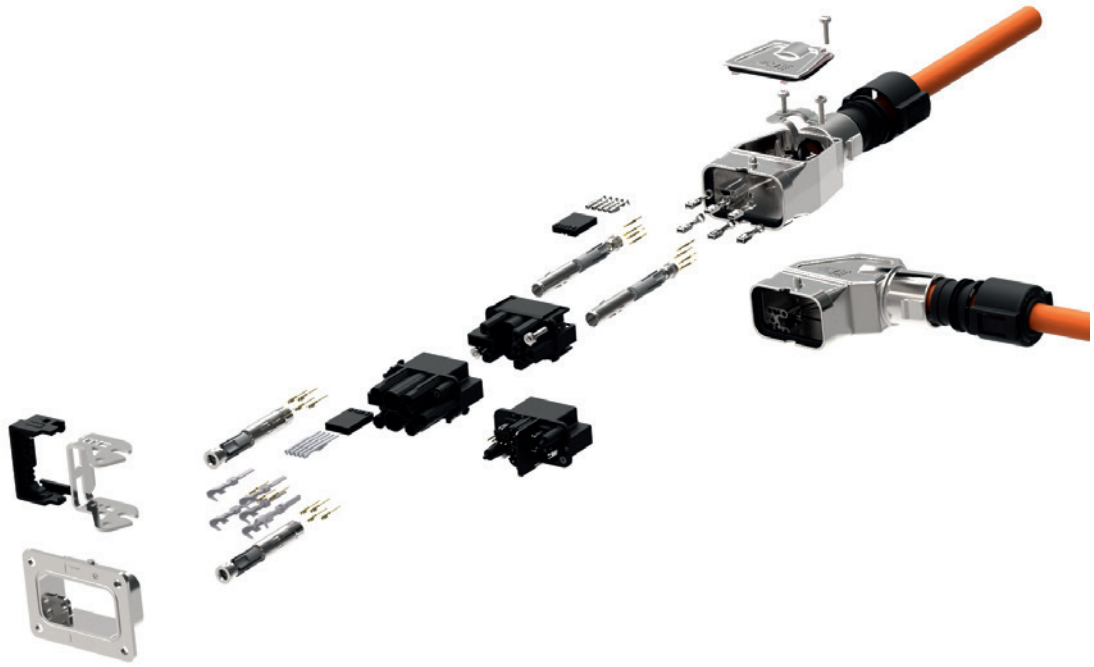
Solderability:

- Reflow capable

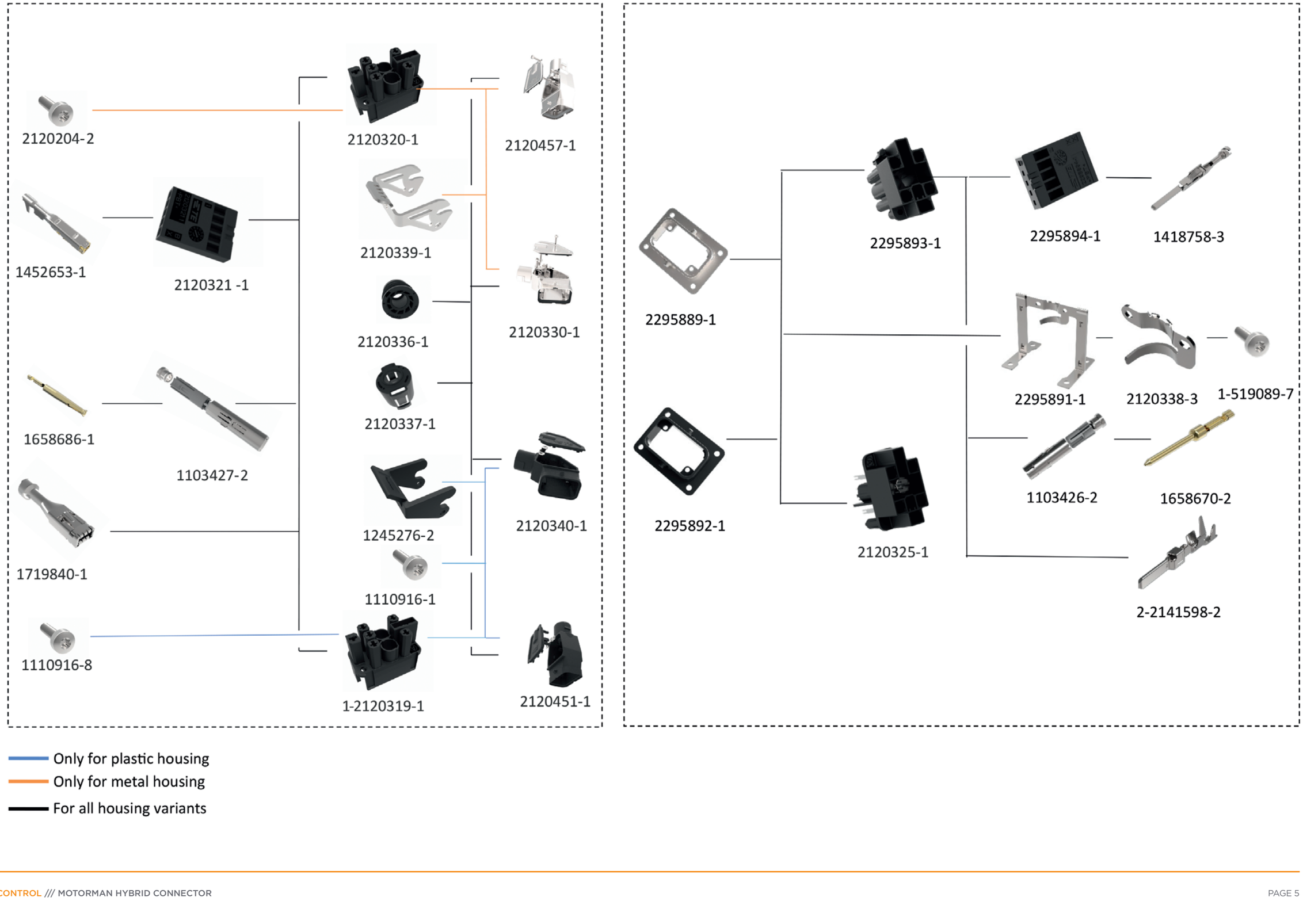
PRODUCT SPECIFICATION

- 108-94252
- 114-94442-1

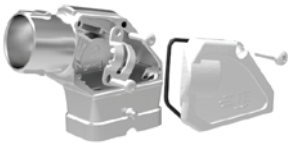
MOTORMAN METAL VERSION



MOTORMAN PLASTIC VERSION


2120204-2
2120320-1
2120457-1
1452653-1
2120321 -1
2120339-1
2120336-1
2120330-1
1658686-1
1103427-2
2120337-1
1719840-1
1245276-2
2120340-1
1110916-1
1110916-8
1-2120319-1
2120451-1
2295889-1
2295893-1
2295894-1
1418758-3
2295891-1
2120338-3
1-519089-7
2295892-1
1103426-2
1658670-2
2120325-1
2-2141598-2
Only for plastic housing
Only for metal housing
For all housing variants

Motorman Hybrid Connector – Overview

Description	Sample	PN
Male Insert: PCP Header		2120325-1
Receptacle Housing (Female Insert)		1-2120319-1
Rec. Housing + PE (Female Insert)		2120320-1
Signal Housing		2120321 -1
Metal Hood Kit 90°		2120330-1
Plastic Hood Kit 90		2120340-1
Metal Hood Kit 180°		2120457-1
Plastic Hood Kit 180°		2120451-1
Ethernet Core, shielded		1103427-2
Protection Cover		2120336-1

Motorman Hybrid Connector – Overview

Description	Sample	PN
Cable Sealing		2120337-1
Side Clip Metal		2120339-1
Side Clip Plastic		1245276-2
Fixing Metal Screw for Insert and Metal Cover		2120204-2
Fixing Plastic Screw for Insert and Plastic Cover		1110916-8
Power Contacts, Series Mcon 2.8		1719840-1
Signal Contacts, Series Mcon 1.2		1452653-1
Contact Series 22DF for Ethernet Core		1658686-1
Ferule Large/Small		2120432-3
Shroud, Metal		2295889-1

Motorman Hybrid Connector – Overview

Description	Sample	PN
Flange Sealing		2295897-1
Male Insert Housing		2295893-1
Signal Housing		2295894-1
Screen Clamp, Motorman Shroud		2295891-1
Shroud, Plastic		2295892-1
Gland Plate		2120338-3
Male Insert Ass´y Series HC26, 4 POS		1103426-2
Pin Contact 22-28 AWG		1658670-2
Tab Contact 1.2 x 0.6		1418758-3
Tab Contact 2.8 x 0.8		2-2141598-2
Cable Assy Motorman Connector to RJ45		2083403
Cable Assy Motorman Connector to Connector		2083404

te.com

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PRODUCT SHEET

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