

# MICRO MOTOR CONNECTORS

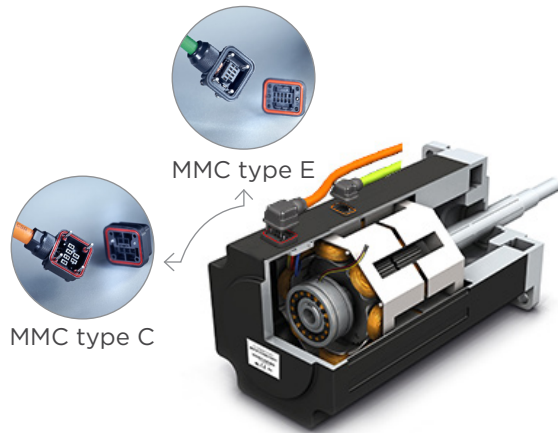
Compact plastic rectangular connectors

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## Overview

Rapid progress in computing power, hardware- and software-development techniques have accelerated the growing trend of automated production facilities and the implementation of robots and automated machines. As digitalization continues to expand, it brings more industrial robots into the factory floor to improve production processes in quality, delivery times and cost efficiency.

As industrial robots are increasing in popularity, especially the collaborative robots' type, they are being connected to a much wider variety of devices in the IoT network. Thus, communications requirements between all the devices are also increasing, placing even more emphasis on the critical role played by the connectors and cables in keeping the entire industrial network connected and operational.



Today the market demands connectors to be more compact, lightweight, and cost-competitive to meet the production needs of small parts assembly process, like those encountered in consumer goods and consumer electronics manufacturing.

To serve this market requirement, TE Connectivity (TE)'s has enhanced its product portfolio by adding the new Micro Motor Connectors (MMC) series. On the left you can see a representation of a motor with the two cables of MMC. The green one is the MMC type E and the orange one is the MMC type C.

The design and material selection of this MMC series enables the operation in the most restricted limited spaces where size and weights are major constraints while ensuring robustness with enhanced vibration and shock resistance in harsh environments.

TE's Micro Motor connection solutions include 2 models: the MMC type E and the MMC type C.

- MMC type E is a 9-position Encoder connector
- MMC type C is a 4+2 Power and Brake connector

TE MMC Series can be used in a wide range of applications: not only in automation for integration on cobots but also in other industries and scenarios such as at transfer and handling machinery, scanning equipment, rotary/tilting tables, pick and place systems, etc.

- Robotics
- Servo motors
- Linear motors
- Machine Tools

## Product Description

Widely recognized in the servo motor market, TE's Micro Motor connectors are applicable to harsh industrial environments. TE's latest Micro Motor connection solutions include a 9-position Encoder connector and a 4+2 Power & Brake connector. Combining Power and Brake into one connector allows a more compact and higher protection standard (IP67) solution with enhanced vibration and shock resistance. Combining Power and Brake into one connector allows a more compact design that can reduce motor assembly time by 30% and therefore improve the plant manufacturing throughput.

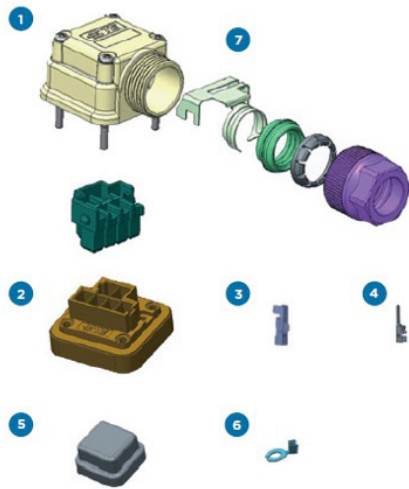
## Features to Benefits

- Power and brake combined in one connector → Two-in-One Design for lowest applied costs
- Field installable connector → easy to install in the field with fast and reliable terminations
- Micro Motor uses standard cables sizes → compatible with commercially available cables
- High Temperature (125 °C for Power & Brake) → high performance in a small design
- Waterproof construction IP67 → suited for harsh environment
- Compliant to TÜV and UL specifications → facility of use worldwide
- Robust contact design → connector housing design provides vibration resistance

## Specifications

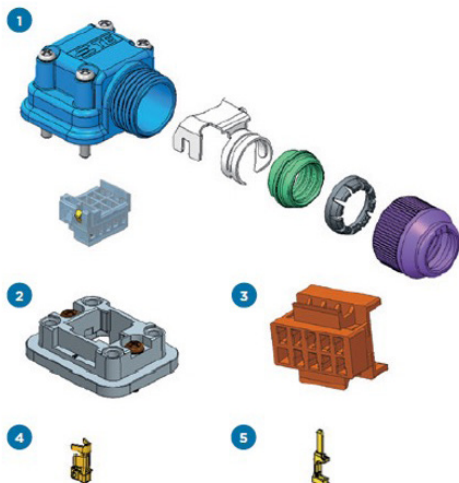
	MMC Type C (Power + Brake)	MMC Type E (Encoder)
Position	6P (3P +G +2B)	9P (8+G)
Rated Voltage	380 VAC Max (Power), 48 VDC Max (Brake)	10 V Max
Rated Current	5 A Max (Power), 2 A Max (Brake)	1 A Max (potentially expandable to 2.6 A)
Dielectric Withstanding Voltage	2500 V for 1 Minute	500 V for 1 Minute
Temperature	-40°C to 125°C (Operating) -5°C to 40°C (Storage)	-30°C to 105°C (Operating) -5°C to 40°C (Storage)
Shield Shell	With	With
Size (H, W, L)	H: 22.2 mm, W: 26.5 mm, L: 39.0 mm	H: 15.0 mm, W: 24.6 mm, L: 31.1 mm
Wire Size	#22-18 (0.32 - 0.75 mm <sup>2</sup> )	Receptacle CONT: #26-22 (0.13 - 0.33 mm <sup>2</sup> ) Post CONT: #28 - 26 (0.089 - 0.141 mm <sup>2</sup> )
Jacket Size	Φ 8.6 - 9.4 mm	Φ 6.8 - 7.4 mm
Protection Degree	IP67 in mated position	IP67 in mated position
Certify by	TÜV & UL	UL
Product Spec	108-137039	108-61148
Application Spec	114-137039	Receptacle CONT: 114-5335 Post CONT: 114-5446
Instruction Sheet	411-137039	Base CONN: 411-61019 Cable I/O: 408-78003

## Ordering Information



### MMC Type C (Power & Brake)

N°	Description	Part Number
1	Power & Brake Cable I/O Kit Without Contact	<a href="#">2271522-1</a>
2	Power & Brake Base Plate	<a href="#">2271280-1</a>
3	Receptacle Power Contact	<a href="#">2271279-2</a>
4	Plug Power Terminal	<a href="#">2271283-2</a>
5	Dust Cap for Power & Brake	<a href="#">2271284-1</a>
6	Grounding Clip	<a href="#">2271285-1</a>
7	Shielding	<a href="#">2271277-1</a>
	Certi-Crimp II Hand Tool	<a href="#">2280413-1</a>
	Shielding Hand Tool	<a href="#">2280400-1</a>



### MMC Type E (Encoder)

N°	Description	Part Number
1	Encoder Cable I/O Kit Without Contact	<a href="#">2201825-1</a>
2	Encoder 9 Position Base Plate	<a href="#">2108418-1</a>
3	Encoder 9 Position Base Insert	<a href="#">2108422-1</a>
4	Receptacle Signal Contact	<a href="#">2174065-4</a>
5	Plug Signal Terminal 1.5 VP	<a href="#">2069391-2</a>
6	Dust Cap for Encoder	<a href="#">2271267-1</a>

## Connect With Us

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