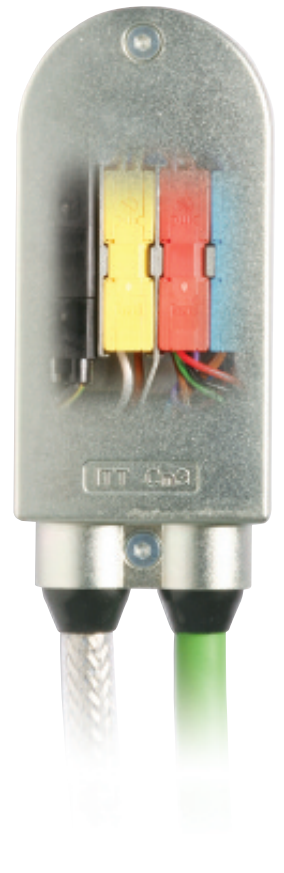




# ITT

Interconnect Solutions

## Cannon Servo Motor Connectors



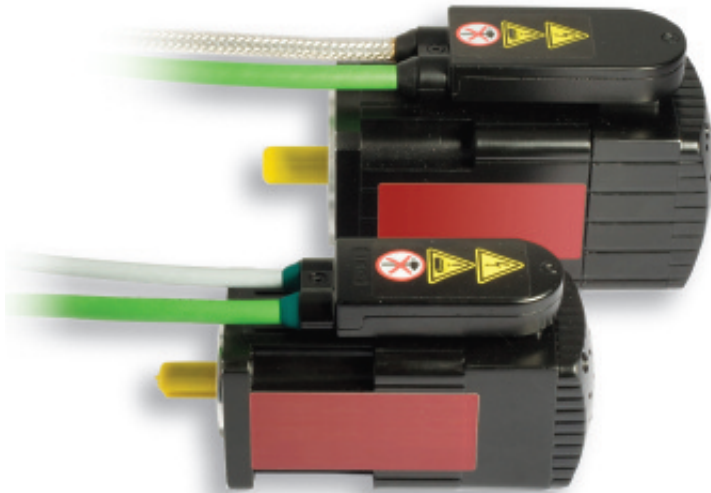
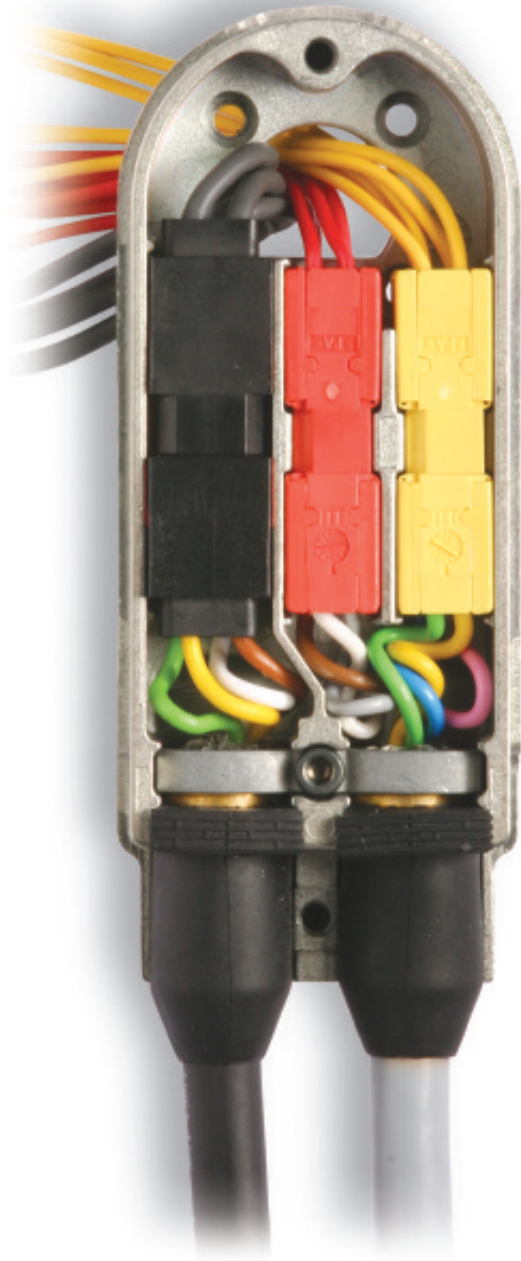
*Engineered for life*

## Connector Range for Servo Motors

The CmX Series connector features a simplified connection design that replaces conventional circular connectors, those requiring a large number of components and nearly twice the length to house the same components as CmX connectors. The innovative design reduces the connector footprint on the servomotor significantly and is just one-third the height of traditional circular connectors. ITT's design enables installation in just four steps and it includes a new clamp technology that minimizes the space required for cable strain relief, shielding and sealing components.

The CmX Series connector family is available in a number of sizes compatible with the various flange diameters and power requirements of servomotors currently on the market and in development. Each size of CmX Series connector has varied dimensions for the power cable entry and power connector, while the feedback cable entry and feedback connector dimensions remain similar across the connector family. The CmX is currently offered in 3 sizes. The Cm2 is available in low and high voltage versions, Cm3 version with 4/8 power and 12/18 signal contacts and Cm5 for High Power applications up to 40 Amp. Please contact us for more information.

**[www.ittcannon.com/servomotors\\_connectors](http://www.ittcannon.com/servomotors_connectors)**



All connectors in the CmX Series are completely sealed and shielded for high reliability and provide a high degree of vibration and shock resistance. The connectors feature IP67 sealing, a housing containing power and feedback insulators, and power ground contacts electrically linked to the shell. A zinc die cast shell, Fluor rubber sealing parts, high temperature insulator material and high quality contacts ensure a rugged, reliable design. The CmX Series connectors meet all requirements for DIN EN61984 safety compliance.



**Cm2****10A/630 Veff, Max: 1 mm<sup>2</sup> (AWG 18)****Power connector Low Voltage:**

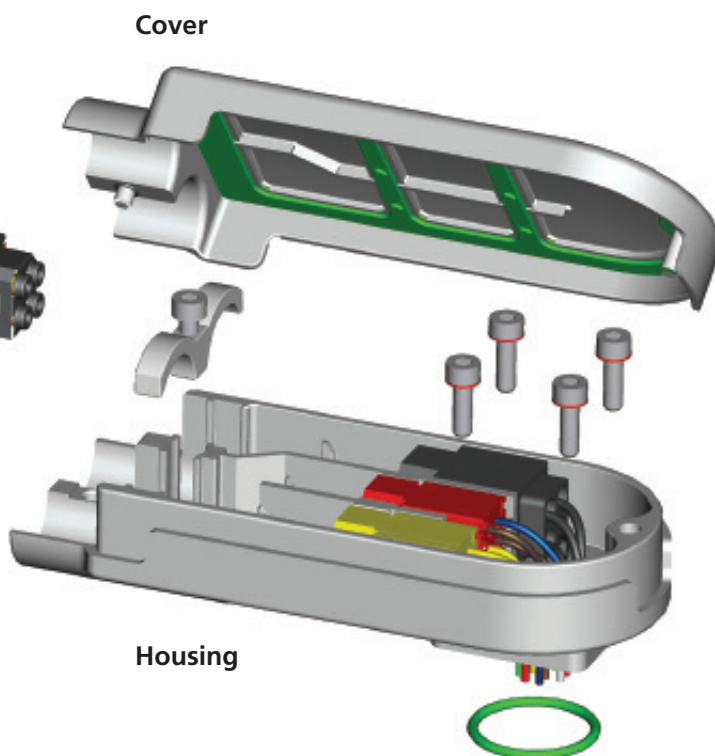
Current Rating: 3 A / 80°C (176°F)  
 Maximum Voltage: 48 VAC  
 Dielectric Strength: 2.2 KV  
 Contact Resistance: < 10 mOhm  
 Insulation Resistance: ≥ 5000 MOhm

**Signal connector:**

Current Rating: 3 A / 80°C (176°F)  
 Maximum Voltage: 48 VAC  
 Dielectric Strength: 500 VDC  
 Contact Resistance: < 10 mOhm  
 Insulation Resistance: ≥ 5000 MOhm

**Power connector High Voltage:**

Current Rating: 10 A / 80°C (176°F)  
 Maximum Voltage: 630 VAC  
 Dielectric Strength: 2.2 KV  
 Contact Resistance: < 10 mOhm  
 Insulation Resistance: ≥ 5000 MOhm

**Power connector****Signal connector****Materials**

Housing: Zinc die cast, plating optional  
 Insulators: PA  
 Sealing: FKM or Neoprene  
 Crimp Sleeve: Brass  
 Contact Material: Brass / Beryllium Copper gold plated  
 ROHS compliant

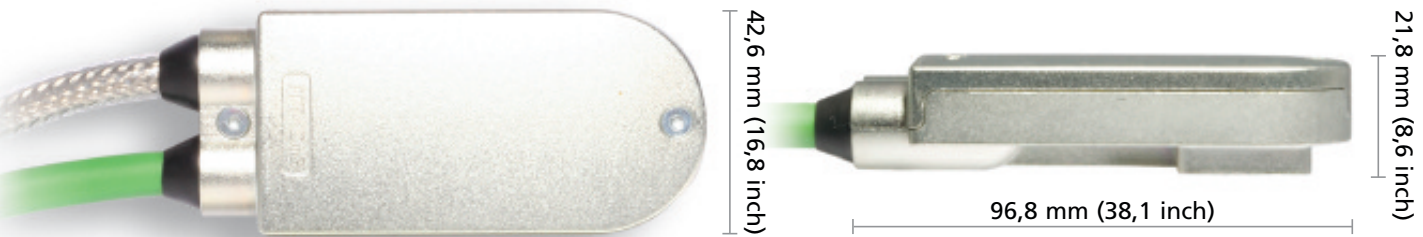
**Operation Environment:**

Operation Temperature: -40°C - 125°C  
 Storage Temperature: -40°C - 80°C  
 Climatic Category: -40°C/125°C/56  
 Water Tightness: IP 65 or IP 67  
 UL approval under preparation

Dimensions shown in mm (inch)  
 Specifications and dimensions subject to change

[www.ittcannon.com](http://www.ittcannon.com)

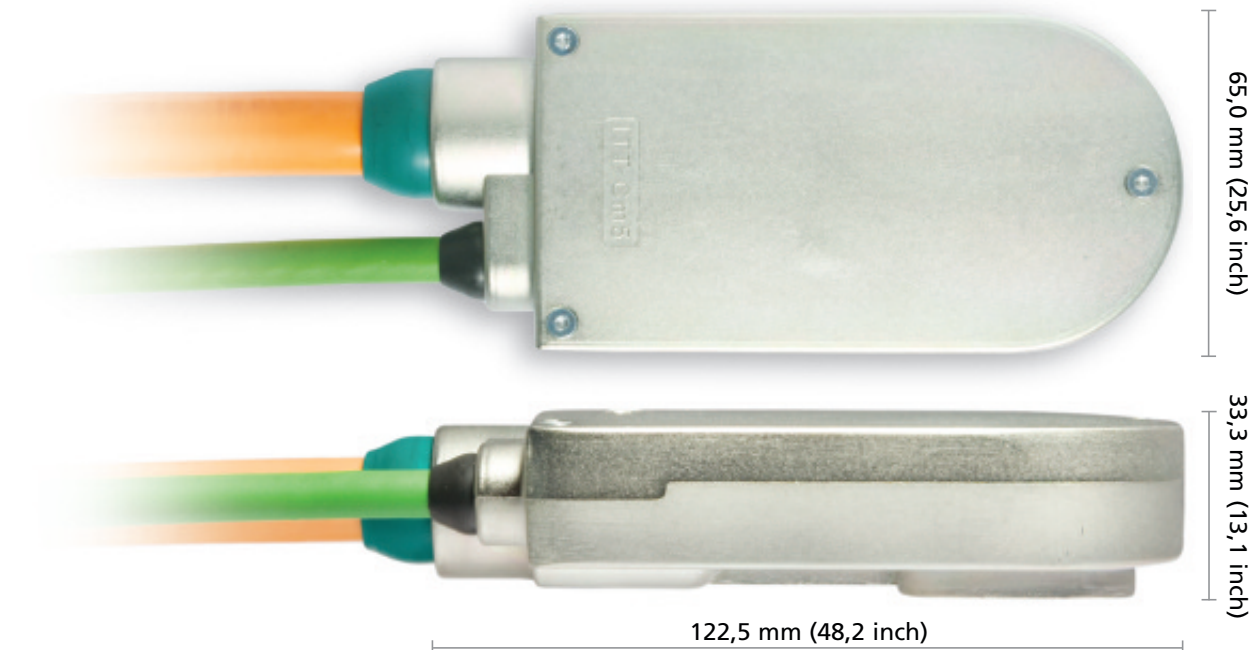


**Cm3****18A/630 Veff, Max: 1.5 mm<sup>2</sup> (AWG 16)****Power connector:**

Current Rating: 18A / 80°C (176°F)  
Maximum Voltage: 630 VAC  
Dielectric Strength: 2.2 KV  
Contact Resistance: < 10 mOhm  
Insulation Resistance: ≥ 5000 MOhm

**Signal connector:**

Current Rating: 3 A / 80°C (176°F)  
Maximum Voltage: 48 VAC  
Dielectric Strength: 500 VDC  
Contact Resistance: < 10 mOhm  
Insulation Resistance: ≥ 5000 MOhm

**Cm5****40A/630 Veff, Max: 6 mm<sup>2</sup> (AWG 10)****Power connector:**

Current Rating: 40 A / 80°C (176°F)  
Maximum Voltage: 630 VAC  
Dielectric Strength: 2.2 KV  
Contact Resistance: < 5 mOhm  
Insulation Resistance: ≥ 5000 MOhm

**Signal connector:**

Current Rating: 3 A / 80°C (176°F)  
Maximum Voltage: 48 VAC  
Dielectric Strength: 500 VDC  
Contact Resistance: < 10 mOhm  
Insulation Resistance: ≥ 5000 MOhm

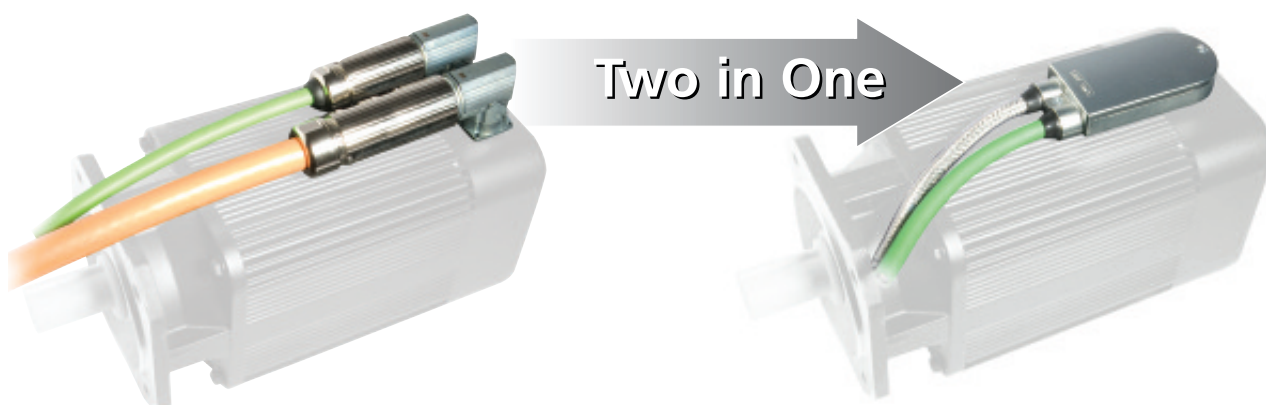
Dimensions shown in mm (inch)  
Specifications and dimensions subject to change

[www.ittcannon.com](http://www.ittcannon.com)



## How the CmX compares to conventional circular connectors:

- New low-profile design for space-sensitive applications
- Significantly lower installed cost
- Less weight
- Smaller size compared to conventional circular connectors
- Simpler harnessing connect and disconnect for faster installation and less maintenance
- Easy contact assembly, no tool for contact installation required
- Better vibration resistance
- Completely sealed and shielded for ultimate reliability
- Housing contains one power and three feedback insulators separated by metal shielding walls
- Two sealed entries for power and feedback cables



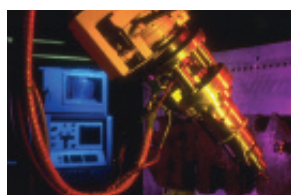
Servomotor applications enhanced by the CmX Series connectors include machine tools, packaging, factory automation, material handling, printing, food packaging, assembly lines, motion control, marking and labeling, robotics, production machines, and laser trimming systems.

**Now, design engineers have a choice when it comes to specifying small motor connectors.**

ITT's CmX connectors fulfill the requirements of cost reduction, miniaturization and maximum performance in motor applications. Please contact us for more information. [www.ittcannon.com/servomotors\\_connectors](http://www.ittcannon.com/servomotors_connectors)

Power Range	Cm2 up to 10A*	Cm3 up to 18A*	Cm5 up to 40A*	Power/Amps*
<b>Power</b>	3+1	3+1	3+1	Nb of contacts
Cable Ø Max	8 (3,1)	11 (4,3)	19 (7,5)	mm (inch)
Wire Section	1.0 (18)	1.5 (16)	1.5 - 6 (16-10)	mm <sup>2</sup> (AWG)
<b>Signal</b>	12	18	24	Nb of contacts
Cable Ø Max	8 (3,1)	11 (4,3)	11 (4,3)	mm (inch)
Wire Section	0.1 - 1.0 (28-18)	0.1 - 1.0 (28-18)	0.1 - 1.0 (28-18)	mm <sup>2</sup> (AWG)

(\* 80°C motor surface and 40°C ambient temp.)





# ITT

## **CMX Connectors Customer Support Locations**

### *ASIA*

Tuopandun Industrial Area, Jinda Cheng,  
Xiner Village, Shajing Town,  
Baoan District, Shenzhen City,  
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Phone: 86.755.2726.7238  
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### *GERMANY*

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phone: 49.7151.699.0  
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### *ITALY*

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Italy 20020  
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fax: 39.0293872300

### *UK*

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### *USA*

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phone: 1.714.557.4700  
fax: 1.714.628.2142