The Cannon Difference:
• 20+ years of experience in the design and manufacture of High Temp Micro-MDM connectors
• Highly engineered Micro-MDM interconnects offer exceptional durability, reliability and versatility in high temperature applications
• Designed to MIL-DTL-83513 specifications
• A commitment to delivering the best solution for standard and custom design requirements


ITT Cannon’s High Temperature Micro-MDM Connectors are designed to perform in the harshest and most demanding environments

With the increasing demand for ruggedized interconnect solutions that can withstand extreme temperatures and operating conditions, ITT Cannon’s High Temperature Microminiature Connector Series continues to lead the industry with high reliability products and customized solutions for multiple markets and applications.

From Standard to Ultra, ITT Cannon Offers a Full Range of Ruggedized, High Temp Microminiature Connectors

Drawing on 100 years of interconnect excellence and more than two decades of industry-leading innovation with High Temp Micro-MDM Connectors, ITT Cannon is committed to delivering solutions that are truly Engineered for Life.

Our family of reliable and versatile Micro-MDM Connectors withstand temperatures ranging from -55°C to 230°C and are designed to MIL-DTL-83513 specifications.

Cannon Standard Micro-MDM
• Designed to MIL-DTL-83513 specifications
• High performance
• High reliability
• Exceptional versatility
• Micro Twist Pin recessed into plug insulators
• Current rating: 3A
• Durability: 500 mating cycles
• Contacts: copper alloy; gold plated
• Low profile configurations available
• Operating temperature: -55°C to +150°C

Cannon High Temp Micro-MDM F222
• Designed to MIL-DTL-83513 specifications
• High performance
• High reliability
• Exceptional versatility
• Micro Twist Pin recessed into plug insulators
• Current rating: 3A
• Durability: 500 mating cycles
• Contacts: copper alloy; gold plated
• Low profile configurations available
• Operating temperature: -55°C to +200°C

NEW Cannon Ultra-High Temp Micro-MDM F300
• Withstands 230° Celsius continuous operating temperature for 500 hours
• Stainless steel shells (passivation only)
• High temp Liquid Crystal Polymer insulator material
• Nickel plated copper wire PTFE jacket per M22759/87
• Designed for critical cable-to-cable applications
• High reliability Micro Twist Pin and Socket contacts
• Durability: 500 mating cycles
• Operating temperature: -55°C to 230°C
## Specifications

### Configurations
- Terminations
  - Stranded wire
  - Solid wire
  - Solder pots
  - PCB
    - Straight
    - Right angle
    - Condensed right angle
- Signal contacts: 9, 15, 21, 25, 31, 37, 51, 100

### Electrical Wire Size
- Stranded wire:
  - 24 AWG thru 32 AWG
- Solid wire:
  - 25 AWG
- Solder pots:
  - 26 AWG or smaller
- PC tails:
  - 24 AWG

### Material and Finishes
- Shell material
  - Aluminum alloy
- Shell plating
  - Electroless nickel
  - Yellow chromate / cadmium over nickel
- Insulator
  - Liquid crystal polymer per MIL-M-24519, type GLCP-30F
- At temperatures above 175°C, yellow chromate over cadmium can cause shell discoloration and deterioration of the chromate conversion coating.

## Hardware Configurations

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>MIL-DTL-83513 Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>No hardware (.125 dia. hole for sizes 9-51 &amp; .166 dia. hole for size 100&quot;)</td>
<td>Size 9-51</td>
<td>Size 9-51</td>
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<tr>
<td>B</td>
<td>No hardware (standard) (.091 dia. hole for size 9-51 &amp; .120 dia. hole for size 100)</td>
<td>M2</td>
<td>Jackscrew-low profile (allen head)</td>
</tr>
<tr>
<td>B1</td>
<td>No hardware (.1475 dia. hole for size 100)</td>
<td>M3</td>
<td>Jackscrew-standard profile (allen head)</td>
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<tr>
<td>F</td>
<td>Float mount</td>
<td>M5</td>
<td>Jackscrew-low profile (slotted head)</td>
</tr>
<tr>
<td>K</td>
<td>Jackscrew-standard profile</td>
<td>M6</td>
<td>Jackscrew-standard profile (slotted head)</td>
</tr>
<tr>
<td>L</td>
<td>Jackscrew-low profile</td>
<td>M7</td>
<td>Jackpost</td>
</tr>
<tr>
<td>P</td>
<td>Jackpost</td>
<td></td>
<td>Size 100</td>
</tr>
<tr>
<td>S</td>
<td>Clinch Nut</td>
<td>M12</td>
<td>Jackscrew-low profile (allen head)</td>
</tr>
<tr>
<td>PCB</td>
<td>Only</td>
<td>M13</td>
<td>Jackscrew-standard profile (allen head)</td>
</tr>
<tr>
<td>R1</td>
<td>Rear Panel Mount Jackpost, .032” Panel</td>
<td>M15</td>
<td>Jackscrew-low profile (slotted head)</td>
</tr>
<tr>
<td>R2</td>
<td>Rear Panel Mount Jackpost, .047” Panel</td>
<td>M16</td>
<td>Jackscrew-standard profile (slotted head)</td>
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<tr>
<td>R3</td>
<td>Rear Panel Mount Jackpost, .062” Panel</td>
<td>M17</td>
<td>Jackpost</td>
</tr>
<tr>
<td>R4</td>
<td>Rear Panel Mount Jackpost, .093” Panel</td>
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<td></td>
</tr>
<tr>
<td>R5</td>
<td>Rear Panel Mount Jackpost, .125” Panel</td>
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<td></td>
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</table>

## Termination Modification Codes

<table>
<thead>
<tr>
<th>Stranded Teflon® Wire per MIL-W-16878/4 (H)</th>
<th>Solid Uninsulated Wire (L)</th>
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<tbody>
<tr>
<td><strong>Length</strong></td>
<td><strong>All Yellow</strong></td>
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<tr>
<td>3 (76.2)</td>
<td>H020</td>
</tr>
<tr>
<td>6 (152.4)</td>
<td>H019</td>
</tr>
<tr>
<td>8 (203.2)</td>
<td>H026</td>
</tr>
<tr>
<td>10 (254.0)</td>
<td>H029</td>
</tr>
<tr>
<td>12 (304.8)</td>
<td>H028</td>
</tr>
<tr>
<td>18 (457.2)</td>
<td>H001</td>
</tr>
<tr>
<td>20 (508.0)</td>
<td>H038</td>
</tr>
<tr>
<td>24 (609.6)</td>
<td>H009</td>
</tr>
<tr>
<td>30 (762.0)</td>
<td>H010</td>
</tr>
<tr>
<td>36 (914.4)</td>
<td>H011</td>
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<tr>
<td>48 (1219.2)</td>
<td>H013</td>
</tr>
<tr>
<td>72 (1828.8)</td>
<td>H017</td>
</tr>
<tr>
<td>120 (3048.0)</td>
<td>H042</td>
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</table>

The above termination MODs are the most frequently ordered. For additional codes please refer to the Micro-D Catalog at www.ittcannon.com
### 150°C Standard Micro-MDM

**RoHS Compliance**
- Series: MDM - Micro-D Metal Shell

**Contact Arrangement**
- 9, 15, 21, 25, 31, 37, 51 & 100

**Contact Type**
- P - Pin / S - Socket

**Termination Type**
- H - Insulated Stranded Wire, L - Uninsulated Stranded Wire, S - Solderpot

**Termination Modified Code**
- See Termination Modification table for Harness Types (H) & Solid Uninsulated Types (L)

**Hardware**
- Commercial A, B, B1, F, K, L, P, S, Military M2, M3, M5, M6, M7, M12, M13, M15, M16, M17

**Shell Finish / MOD Codes**
- *Blank - Yellow Chromate/Cadmium (Not RoHS Compliant), A174 - Electroless Nickel (RoHS Compliant)

### 200°C High Temp Micro-MDM F222

**How to Order | Part Number Configurator**

**RoHS Compliance**
- Series: MDM - Micro-D Metal Shell

**Contact Arrangement**
- 9, 15, 21, 25, 31, 37, 51 & 100

**Contact Type**
- P - Pin / S - Socket

**Termination Type**
- H - Insulated Stranded Wire, L - Uninsulated Stranded Wire, S - Solderpot

**Termination Modified Code**
- See Termination Modification table for Harness Types (H) & Solid Uninsulated Types (L)

**Hardware**
- Commercial A, B, B1, F, K, L, P, S, Military M2, M3, M5, M6, M7, M12, M13, M15, M16, M17

**Shell Finish / MOD Codes**
- *Blank - Yellow Chromate/Cadmium (Not RoHS Compliant), A174 - Electroless Nickel (RoHS Compliant)

### 150°C Standard PCB Board Mount

**How to Order | Part Number Configurator**

**RoHS Compliance**
- Series: MDM - Micro-D Metal Shell

**Contact Arrangement**
- 9, 15, 21, 25, 31, 37, 51 & 100

**Contact Type**
- P - Pin / S - Socket

**Termination Type**
- BS - Straight, BR - Right Angle, CBR - Condensed Right Angle

**Hardware**
- Commercial A, B, B1, P, R1, R2, R3, R4, RS Military M7, M17

**Mounting Hardware for PCB**
- T - Threaded Insert, No Letter - Thru-Hole

**Length MOD Code**
- See Termination Modification table for Solid Uninsulated Types (L)

**Shell Finish / MOD Codes**
- *Blank - Yellow Chromate/Cadmium (Not RoHS Compliant), A174 - Electroless Nickel (RoHS Compliant)

**High Temperature**
- F222 (200°C Option)
230°C Ultra-High Temp Micro-MDM F300

How to Order | Part Number Configurator

Series

MDM - MD Metal Shell

Contact Arrangement

9, 15, 21, 25, 31 & 37

Contact Type

P - Pin / S - Socket

Termination Type

R - Insulated Standards Wire / S - Solder Pot

Termination Modifier Code

(Consult Factory for all “R”, “T” and “U” Mod Codes for Lead Material and Length)

Hardware

P - Jackpost
R1 - Rear Panel Mount Jackpost .032” Panel
R2 - Rear Panel Mount Jackpost .047” Panel
R3 - Rear Panel Mount Jackpost .062” Panel
R4 - Rear Panel Mount Jackpost .093” Panel
R5 - Rear Panel Mount Jackpost .125” Panel
K - Jackscrew-Standard Profile
L - Jackscrew-Low Profile

Shell Finish / MOD Codes

F300 - Stainless Steel Passivated Only

High-Temp Wires | Callouts

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<td>U43</td>
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</tbody>
</table>

Specifications & Options for 230°C Ultra-High Temp Micro

Configurations

- Terminations
  - Stranded wire
  - Solid wire
  - Solder pots
  - PCB
  - Straight
  - Right angle
  - Condensed right angle
- Signal contacts: 9, 15, 21, 25, 37, 37

Electrical Wire Size

- Solid wire:
  - Nickel plated copper wire PTFE jacket per M22759/87
  - 26 AWG
- Solder pots:
  - 26 AWG or smaller

Material and Finishes

- Shell material
  - Stainless steel shells (passivation only)
- Insulator
  - High temp Liquid Crystal Polymer insulator material
- Durability
  - 500 mating cycles
- Operating temperature
  - -55°C to 230°C

Hardware per 83513:

M2 - Jackscrew-low profile (Allen Head)
M3 - Jackscrew-standard profile (Allen Head)
M5 - Jackscrew-low profile (Slotted Head)
M6 - Jackscrew-standard profile (Slotted Head)
M7 - Jackpost
Connect with the experts

From aerospace and defense systems, to specialized solutions for the oil and gas industry, we connect data, signal and power with those who need it most.

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