

**cannon**

# High Temperature Micro-D Connectors

Datasheet



**ITT**

ENGINEERED FOR LIFE

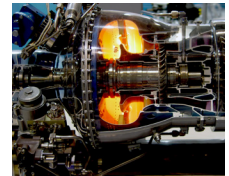
# High Temperature Micro D-Subminiature Connectors



Down Hole Analyzer



Rocket Boosters

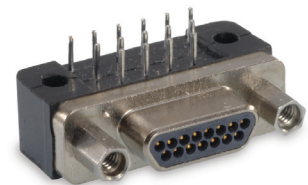


Aircraft Engines

With the increasing demand for compact, ruggedized interconnect solutions that can withstand temperatures up to 200°C, ITT's Cannon brand continues to lead the industry with high reliability products customized for applications from satellites to down hole analyzers.

## Experience

With over 20 years of design and manufacturing experience with high temperature connectors, Cannon not only offers proven reliability but also a commitment to providing the best solution for your standard and custom design.



## Features and Benefits

- Designed in accordance with the MIL-DTL-83513
- High performance
- High reliability
- Exceptional versatility
- Micro Socket- Free standing used in receptacle side
- 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

## Applications

### Aerospace & Defense

- Space/Satellite
- Military Electronics
- Avionics
- Missile Systems
- Test Equipment

### Commercial

- Data Acquisition
- Down Hole Drilling
- Instrumentation
- Industrial
- Test Equipment

# 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

# Hardware Configurations

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

# Termination Modification Codes

Stranded Teflon® Wire per MIL-W-16878/4 (H)			Solid Uninsulated Wire (L)	
Length	All Yellow	Color Coded	Termination Code	Length
3 (76.2)	H020	H027	L61	.125 (3.18)
6 (152.4)	H019	H016	L56	.150 (3.81)
8 (203.2)	H026	H034	L57	.190 (4.83)
10 (254.0)	H029	H025	L39	.250 (6.35)
12 (304.8)	H028	H002	L58	.375 (9.52)
18 (457.2)	H001	H003	L1	.500 (12.70)
20 (508.0)	H038	H023	L14	.750 (19.05)
24 (609.6)	H009	H004	L2	1.000 (25.40)
30 (762.0)	H010	H005	L7	1.500 (38.10)
36 (914.4)	H011	H006	L6	2.000 (50.80)
48 (1219.2)	H013	H048	L16	2.500 (63.50)
72 (1828.8)	H017	H046	L10	3.000 (76.20)
120 (3048.0)	H042	H041		

The above termination MODs are the most frequently ordered. For additional codes please refer to the Micro D Catalog at [www.ittcannon.com](http://www.ittcannon.com)

# High Temperature Micro-D Part Number Configuration

## Wired & Solder Pot

R MDM 25 P H 003 M2 A174 F222

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	Reference Termination Modification table for a list of 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)
High Temperature	F222

## PCB

R MDM 25 P BR P T L39 A174 F222

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, R5 Military M7, M17
Mounting Hardware for PCB	T - Threaded Insert, No Letter - Thru-Hole
Length MOD Code	Reference Termination Modification table for a list of Solid Uninsulated Types (L)
Shell Finish/MOD Codes*	*Blank - Yellow Chromate/Cadmium (Not RoHS Compliant), A174 - Electroless Nickel (RoHS Compliant)
High Temperature	F222

\*At temperatures above 175°C, yellow chromate over cadmium can cause shell discoloration and deterioration of the chromate conversion coating.