cannon

High Temperature
Micro-D Connectors
Datasheet

ITT

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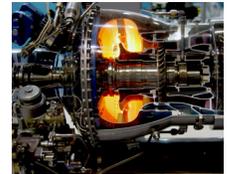
High Temperature
Micro D-Subminiature Connectors

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:
		M2	Jackscrew-low profile (allen head)
B	No hardware (standard) (.091 dia. hole for size 9-51 & .120 dia. hole for size 100)	M3	Jackscrew-standard profile (allen head)
		M5	Jackscrew-low profile (slotted head)
B1	No hardware (.1475 dia. hole for size 100)	M6	Jackscrew-standard profile (slotted head)
F	Float mount	M7	Jackpost
K	Jackscrew-standard profile		Size 100:
L	Jackscrew-low profile	M12	Jackscrew-low profile (allen head)
P	Jackpost	M13	Jackscrew-standard profile (allen head)
S	Clinch Nut	M15	Jackscrew-low profile (slotted head)
	PCB Only	M16	Jackscrew-standard profile (slotted head)
R1	Rear Panel Mount Jackpost, .032" Panel	M17	Jackpost
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		

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

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.