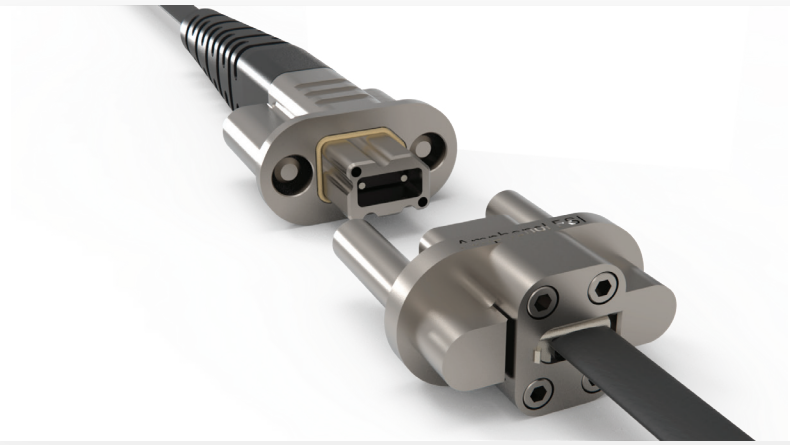
NanoDMT

Miniature D-sub MT Connectors





The NanoDMT series of miniature D-sub MT connectors are designed to meet the demands of high-performance and high-density applications within harsh environments. The NanoDMT connector is ideal for high-speed displays, supporting up to 64 fibers in a single MT. Designed for precision machined Al housing makes it easy to identify orientiation. Three tier mating with sub-alignments pins and insert-to-insert bottoming for superior repeatability and stability.

These miniature connectors are known for their superior reliability, exceptional signal integrity, and compact size, making them ideal for modern electronic systems requiring robust interconnection solutions.

Features & Benefits:

- Miniature "D-Sub" form factor for Single MT ferrule
- Supports up to 64 fibers, SM, MM, APC, UPC
- Utilizes industry standard MT hardware
  - No proprietary mounting kits
- Three Tier Mating
- IP-68 Seal
  - Conductive O-rings to minimize EMI transmission
- Supports round cable or ribbon on either the receptacle or plug
- 30 key options
- Snag-proof and captive hardware
- High Temp
- Accommodates thick panels (up to 3/16")
- Al available with Ni-PTFE
  - Available in 303 and 316 SS

Applications:

- Ideal for High-Speed Displays
- Modular Radar Units
- UAVs
- Missiles
- Ruggedized servers and switches

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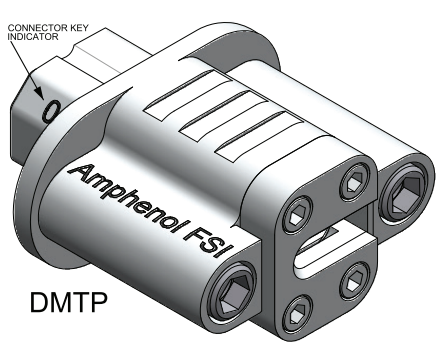
NanoDMT

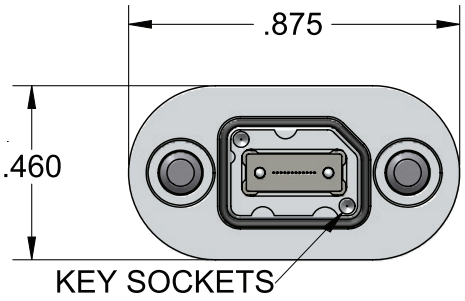
Miniature D-sub MT Connectors

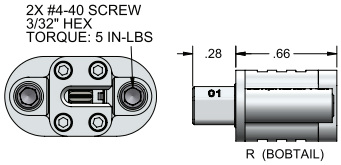
Amphenol FSI

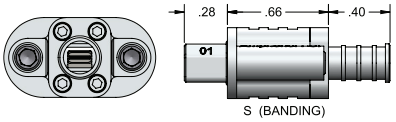
NanoDMT Connector Layouts:

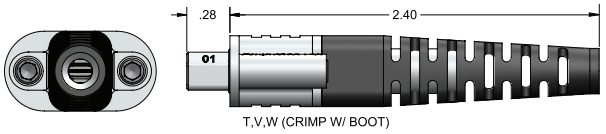
Plug (DMTP):



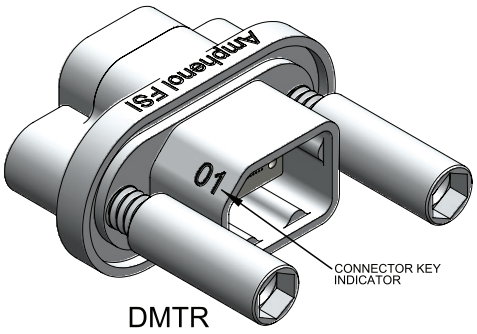


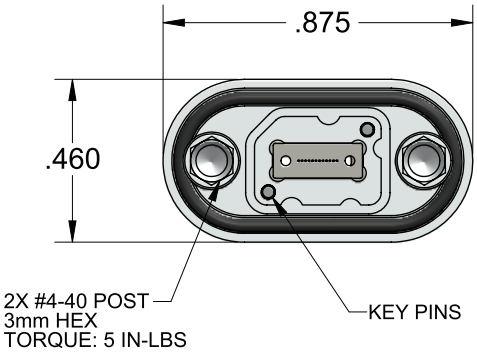


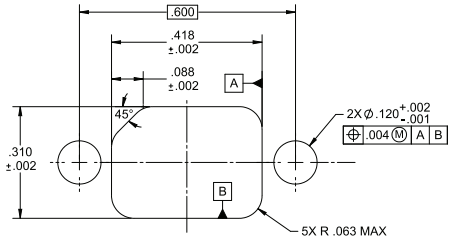




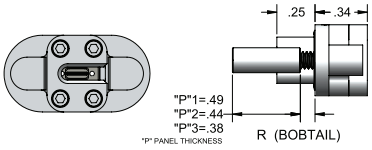
Receptacle (DMTR):

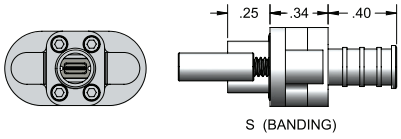


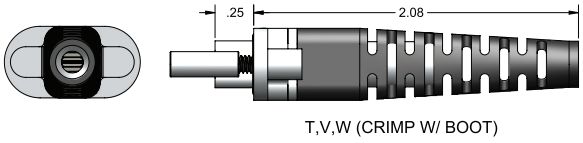




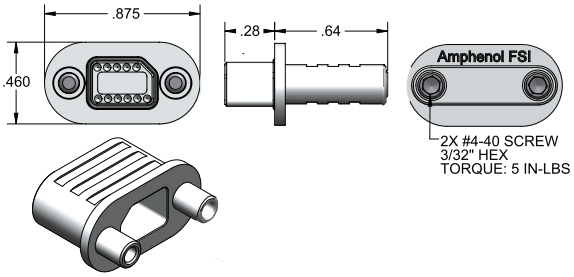
DMTR PANEL CUTOUT



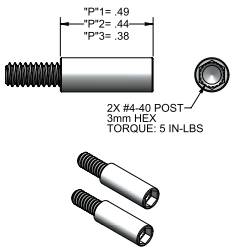




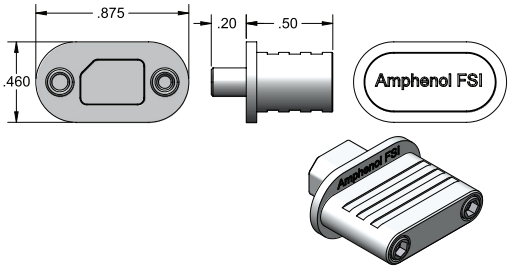
Plug Dust Cover (DMTD):



Replacement Screws (DMTS):



Receptacle EMI Cover (DMTE):



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Amphenol FSI

Performance:

Test Description	Test Results
Optical Insertion Loss for multimode and single mode, per TIA/EIA-455-171	0.3 dB typical - for multimode (50/125µm) & singlemode (9/125µm)
Temperature Cycling: per TIA/EIA-455-3, Test Condition C-2 for a total of 5 cycles	Max. CIT during test = 0.32 dB Max. IL post-test = 0.46dB Min. RL post-test > 60dB (singlemode only)
Mating Durability (500 cycles per TIA-455-21 with exception to how often CIT was measured)	First 100 cycles - CIT measured every 10 cycles. Next 400 cycles - CIT measured every 25 cycles. Max. CIT during test = 0.29 dB Max. IL post-test = 0.44dB Min. RL post-test > 60dB (singlemode only) *Note: Mating hardware torqured to spec. only when taking measurments*
Mechanical Shock 1: 50g Peak, 11 ms duration, Per TIA/EIA-455-14, Test Condition E (18 shocks total)	Max. IL post-test = 0.48 dB Min. RL post-test > 60 dB (singlemode only) *Discontinuity: none detected when monitored at 1 us max. and ±0.5 dB max.*
Mechanical Shock 2: 160g Peak, 4 ms duration, Per MIL-STD-202, Method 213 (18 shocks total)	
Mechanical Shock 3: 300g Peak, 0.5 ms duration, Per MIL-STD-833E, Method 2002.4 (30 shocks total)	
Vibration, Random 26.4 Grms, 1hr/axis, (3 hrs. total), per TIA-455-11, condition VII-G	Max. IL post-test = 0.48 dB Min. RL post-test > 60 dB (singlemode only) *No discontinuity detected when monitored at 1 us max. and ±0.5 dB max.*
Vibration, Sine 5-15 Hz., 2hrs/axis, (6 hrs. total), per MIL-STD-202, test method 201	Max. IL post-test = 0.48 dB Min. RL post-test > 60 dB (singlemode only) *No discontinuity detected when monitored at 1 us max. and ±0.5 dB max.*
Vibration, Sine 20g Peak, 10-2,000 Hz., 4hrs/axis, (12 hrs. total), per TIA-455-11, condition IV	Max. IL post-test = 0.48 dB Min. RL post-test > 60 dB (singlemode only) *No discontinuity detected when monitored at 1 us max. and ±0.5 dB max.*

Part Numbering Schemes

	1.	2.	3.	4.	5.	6.
Base Part Num.	**Connector**	**Connector Material**	**Seal Material**	**Connector Key**	**Cable/ Strain Relief**	**Panel Thickness**
DMT	P -	AL	01	UN	R	1

1. Connector

P	Plug
R	Receptacle
S	Replacement Screws, Pair
E	EMI Cover, Receptacle
D	Metal Dust Cover, Plug

2. Connector Material

AL	6061-T6 Aluminum, Ni-PTFE
AU	6061-T6 Aluminum, E Ni
BB	6061-T6 Aluminum, BLK ZnNi
FB	303 Stainless
HB	316 Stainless

3. Seal Material

01	Fluorosilicone
12	Fluorosilicone, AG-Al Filled
17	EPDM, Ag-Ni Filled

4. Connector Key

01-36	Key 1 - Key 36
UN	Universal

6. Cable / Strain Relief

E	Crimp, EMI (Ø3mm Round Cable with Short Boot)
P	Crimp (Ø3mm Round Cable with Short Boot)
R	Bobtail / No Strain Relief
S	Banding (Ø4.6mm Max Cable)
U	Banding (Ø5.5mm Max Cable)
T	3.0±0.5mm Round Cable with Boot
V	4.0±0.5mm Round Cable with Boot
W	5.0±0.5mm Round Cable with Boot

7. Panel Thickness

1	.030-.095" Panel
2	.060-.125" Panel
3	.125-.190" Panel

Ex: *DMTP-AL01UNR1*

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