

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 orientation. 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

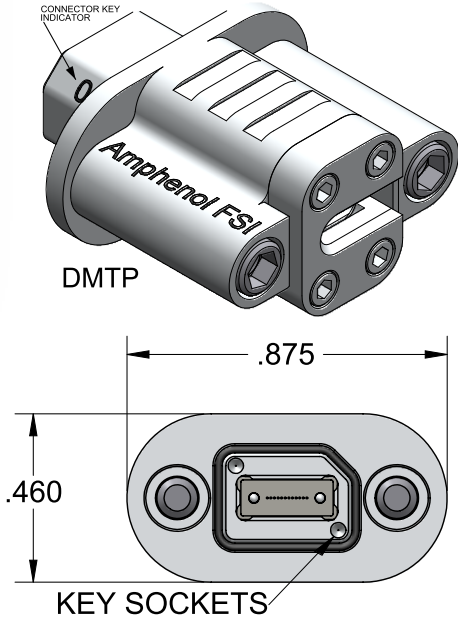
NanoDMT

Miniature D-sub MT Connectors

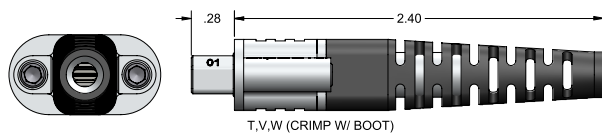
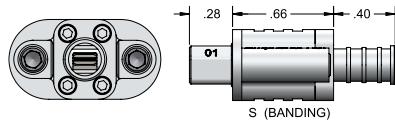
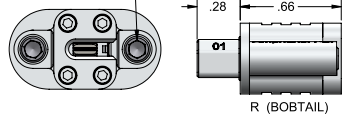
AmphenolFSI

NanoDMT Connector Layouts:

Plug (DMTP):



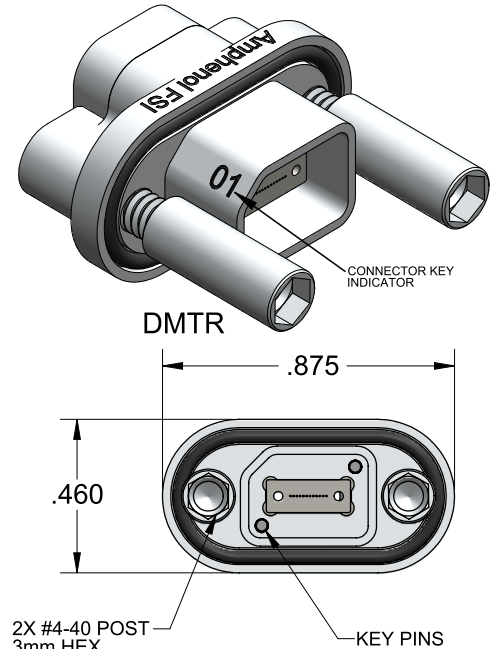
2X #4-40 SCREW
3/32" HEX
TORQUE: 5 IN-LBS



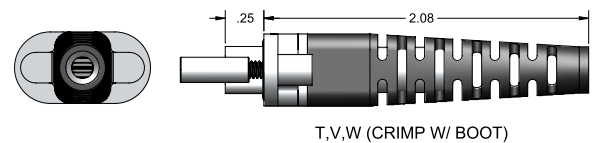
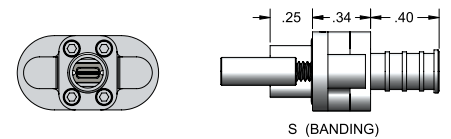
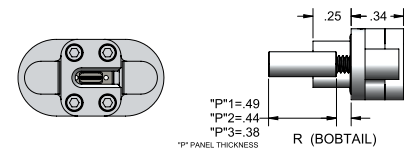
Performance:

Parameter	Typical	Test Method
Optical Insertion Loss (PC/APC-MT)	< .35dB	TIA/EIA-455-171
Optical Insertion Loss (EB-MT)	< .75dB	TIA/EIA-455-171
Optical Return Loss (PC-MT)	> 25dB	TIA/EIA-455-107
Optical Return Loss (APC-MT)	> 60dB	TIA/EIA-455-107
Optical Return Loss (EB-MT)	> 23dB	TIA/EIA-455-107
Vibration - Random (EB-MT)	49.10 Grms	MIL-STD-1678-3
Vibration - Random (PC-MT)	11.95 Grms	TIA/EIA-455-11
Mechanical Shock (EB-MT)	100G	TIA/EIA-455-14
Mechanical Shock (PC-MT)	50G	TIA/EIA-455-14
Mating Durability (EB-MT)	500 Cycles	TIA/EIA-455-21
Mating Durability (PC-MT)	250 Cycles	TIA/EIA-455-21
Operating Temperature	-46°C to 85°C	TIA/EIA-455-3
Storage Temperature	-60°C to 100°C	

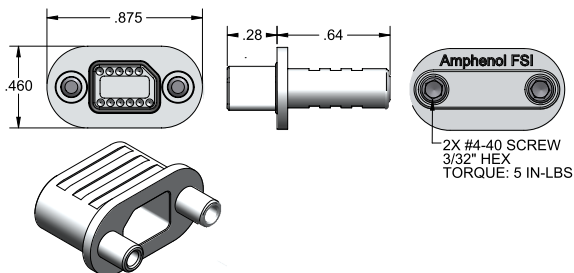
Receptacle (DMTR):



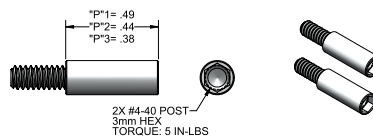
2X #4-40 POST
3mm HEX
TORQUE: 5 IN-LBS



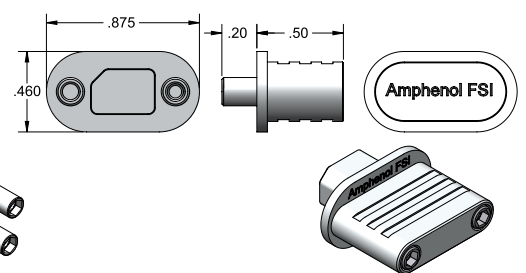
Plug Dust Cover (DMTD):



Replacement Screws (DMTS):



Receptacle EMI Cover (DMTE):



Amphenol Fiber Systems International, Inc.

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Amphenol Fiber Systems International (AFSI), a division of Amphenol Military & Aerospace Operations (AMAO), is the largest manufacturer of harsh environment fiber optic cable assemblies & connectors in the world. Visit AMAO at amphenol-aerospace.com

Part Numbering Schemes

1.	2.	3.	4.	5.	6.	7.	8.
Base Part Num.	Connector	Connector Material	Seal Material	Connector Key	MT Style/ Spring Force	Cable/ Strain Relief	Panel Thickness
DMT	P -	AK	01	UN	2	R	1

1. Connector		2. Connector Material		3. Seal Material		4. Connector Key	
P	Plug	AL	6061-T6 Aluminum, Ni-PFTE	01	Fluorosilicone	01-36	Key 1 - Key 36
R	Receptacle	BB	6061-T6 Aluminum, BLK ZnNi	17	EPDM, Ag-Ni Filled	UN	Universal
S	Replacement Screws, Pair	FB	303 Stainless				
E	EMI Cover, Receptacle	HB	316 Stainless				
D	Metal Dust Cover, Plug						

5. MT Style / Spring Force		6. Cable / Strain Relief		7. Panel Thickness	
1	12F 9.8N Spring	R	Bobtail / No Strain Relief	1	.030-.095" Panel
2	12F 20N Spring	S	Banding (Ø 4.6mm Max Cable)	2	.060-.125" Panel
3	16F 20N Spring	U	Banding (Ø 5.5mm Max Cable)	3	.125-.190" Panel
		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		

Ex: *DMTP - AK01UN2R1*

About AFSI:

Amphenol Fiber Systems International (AFSI) designs, manufactures, markets and supports the broadest portfolio of reliable and innovative fiber optic interconnect solutions to withstand the harsh environments of military, aerospace, heavy industrial, broadcast and medical applications. Since inception in 1993, AFSI continues to advance its position as a global leader in harsh environment fiber optic interconnect.

AFSI has delivered millions of fiber optic solutions in more than 30 countries. Whenever there is a need for superior, cost-effective fiber optic systems to withstand the harshest of operating environments, you can rely on AFSI for engineering know-how, top-quality products and expert technical support. Visit www.fibersystems.com for more information.

For more information on how to order or to obtain a price quote on our products, call toll free (U.S. only) at 800.472.4225, international calls please use 1.214.547.2400 or e-mail info@fibersystems.com.