



US Conec manufactures durable MTP® brand connectors that provide quick connection for up to 72 optical fibers. Connection integrity is provided by adapter latches which are locked into place on the connector plug by a spring loaded sliding mechanism. Precision alignment is achieved with patented guide pins combined with the tightly controlled guide pin holes on US Conec's MT ferrules. Removable housings allow for quick change of gender, ferrule cleaning, interferometry or conne tor re-polishing. US Conec's MTP brand connector components are fully compliant with IEC Standard 61754-7 and TIA 604-5 - Type MPO.

Standard Spring Force Connectors

US Conec's standard hardware packages ensure that ferrule endface contact forces are compliant with the traditional loads specified in IEC 61754-7-1 and TIA 604-5. These connectors are suitable for most applications including all single fiber row ferrules and all APC ferrules.

High Spring Force Connectors (HSF)

The development of 100G+ high speed parallel optic multimode links utilizing 24 lanes is driving stringent link attenuation budgets into multi-row MTP® connectivity. To meet this need, US Conec has now released MTP® connector hardware optimized for ensuring fiber to fiber physical contact between the mated fiber pairs on multi-row ferrules. A new, higher spring force connector hardware has been designed in accordance with the emerging multi-row IEC MPO intermateability standard, 61754-7-2. This low loss, high density connector solution is ideal for high fiber count, multi-row applications in array trunking, breakout modules, and for links utilizing 24F IEEE and Infiniband 100G+ parallel optic transceiver protocols. When used with 24 fiber and 16 fiber multimode MT Elite® ferrules, the solution offers a worst case mated pair insertion loss of 0.35dB on OM3 fiber at 850nm with a typical distribution mode of 0.10dB.

Specifications

Features:

- Patented floating ferrule design ensures fiber contact integrity
- Terminates ribbon fiber or loose individual fibers
- Designed for low loss and standard loss SM and MM applications
- Patented elliptical guide pin tip to minimize ferrule debris
- Ruggedized round cable, oval cable and bare ribbon options available
- Compatible with US Conec MT ferrules in fiber counts 4 - 72
- Color coded housings available to differentiate fiber type, polish type and/or connector grade
- Housing is removable for quick gender change and easy ferrule inspection / re-polishing
- Alignment achieved with high precision guide pins
- No-epoxy housing design
- Family of bulkhead adapters available

Applications & Associated Standards:

- Array trunk cables
- Array fiber to single fiber fanouts and cassettes
- High fiber density card edge access
- Optical switching interframe connections
- Meets IEC Standard 61754-7
- Meets TIA/EIA 604-5 Type MPO
- Structured cabling per TIA-568-C
- Parallel Optics
 - 40G and 100G IEEE 802.3
 - Optical Internetworking Forum (OIF) Compliant
 - QSFP
 - CXP
 - CFP
 - PSM4

	MM MT Elite® Multimode MT Ferrule	Standard Multimode MT Ferrule	SM MT Elite® Single-mode MT Ferrule	Standard Single-mode MT Ferrule
Insertion Loss	0.1dB Typical (All Fibers) 0.35dB Maximum (Single Fiber) ^{2,3,5}	0.20dB Typical (All Fibers) 0.60dB Maximum (Single Fiber) ^{2,3,5}	0.10dB Typical (All Fibers) 0.35dB Maximum (Single Fiber) ^{1,4,5}	0.25dB Typical (All Fibers) 0.75dB Maximum (Single Fiber) ^{1,5}
Optical Return Loss	> 20dB ⁵	> 20dB ⁵	> 60dB (8° Angle Polish) ⁵	> 60dB (8° Angle Polish) ⁵

¹ As tested per ANSI/EIA-455-171 Method D3

² As tested per ANSI/EIA-455-171 Method D1

³ As tested with proposed encircled flux launch condition on 50um fiber and 850nm per IEC 61280-4-1

⁴ Compliant with proposed IEC 61755-3-31/GRADE B

⁵ For 48-fiber MM MTs, 72-fiber MM MTs, or 24-fiber SM MTs, please see our website at www.usconec.com/resources/faq.htm#ques6.

For part number ordering information, please visit our website at: www.usconec.com/mtp_housing_kits_configurator.htm

Main: 828.323.8883 • Toll Free: 800.769.0944 • www.usconec.com

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Round Strain Relief Hardware for Controlled Environments
 ø 2.0mm - 5.5mm Nominal Cable OD
 Round, multi-fiber interconnect cables with loose, individual fibers provide cable routing and performance advantages over traditional ribbon based cables. By eliminating the preferential bend associated with ribbon, round cables can be routed and mechanically loaded in any axis relative to the MTP® connector port. US Conec's round MTP® hardware components are designed for easy termination to the loose fiber cables via the use of a simple, US Conec ribbonization process.



Round Strain Relief Hardware for Uncontrolled Environments
 ø 3.0mm - 3.6mm Nominal Cable OD
 US Conec's enhanced performance MTP® connector hardware components are capable of withstanding the stringent performance Objectives of GR-1435 issue 2. These precision engineered components use state of the art materials and injection molding techniques to offer the maximum strength and optical performance through the most severe non-hardened connector environmental exposure and mechanical loading. These hardware components are ideal for FTTx and campus network applications.



High Spring Force
 ø 3.0mm - 5.5mm Nominal Cable OD
 The high spring force MTP® connector enables low-loss structured cabling links with 24 fiber connectivity to support next generation 40G, 100G and 120G parallel optics. The increased connector spring force enables fiber tip physical contact for all fibers in up to 24F connectors with typical industry accepted endface geometry. The higher spring force MTP® hardware is available for all controlled environment cable types.



Short MTP® Round for Bend Insensitive Fiber Applications
 With the availability of bend insensitive singlemode and multimode fibers, US Conec has introduced a reduced length cable exit for round MTP® hardware. This version takes advantage of the ability to route fibers with a tighter bend radius. The new hardware is ideal when cable management space in front of the equipment or rack bulkhead is limited.



Oval Strain Relief Hardware for Controlled Environments
 US Conec's classic oval MTP® brand hardware easily terminates to ribbon based interconnect cables. The crimping mechanism is designed to accommodate a wide range of cable jacket materials and thicknesses.



On Card Connectors
 Two MTP® brand hardware kits are available for on-card or intra-card multi-fiber connector applications suitable for termination directly to bare ribbon fiber. The bare ribbon package with the boot provides bend relief to the cable while the short MTP® bare ribbon connector offers the smallest PCB surface area consumption available on the market.



900 µm Hardware
 900 micron MTP® hardware kits provide a compact, cost effective solution for multi-fiber assemblies which require the MTP® hardware to be integrated with single fiber connector assemblies. These kits enable 900 micron, tight-buffered fiber pigtailed to be terminated directly into the cable exit portion of the MTP® connector hardware. Alternatively, customer-provided, 900 micron furcation tubes can be coupled into the cable exit allowing for pre-terminated MT-ferrule ribbon pigtailed to be fanned out and threaded into the protective tubing. Mechanical coupling between the 900 micron tubing and connector hardware ensures a reliable termination ideal for fiber distribution hub and breakout cassette applications while eliminating the need for traditional breakout hardware.

For part number ordering information, please visit our website at: www.usconec.com/mtp_housing_kits_configurator.htm

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