



# **MTP® PRO Connector**

The MTP<sup>®</sup> PRO connector is the newest addition to the US Conec MTP<sup>®</sup> brand MPO product family. This stateof-the-art connector brings simplified use to the MPO format by offering optimal field flexibility and enhanced performance, all while leveraging the proven features and technology of US Conec's MTP<sup>®</sup> connectors. With a novel design focused on simplicity and reliability, the MTP<sup>®</sup> PRO connector offers quick and effective polarity and pin reconfiguration in the field or factory while ensuring product integrity and performance. Simple field or factory configurability saves time, eliminates costly errors, requires less pre-planning and less cabling inventory, resulting in a total lower cost cabling infrastructure.

#### Features:

• Field pin change

Field friendly configuration while maintaining product integrity, fail safe handling of pins and easy color identification

Field polarity change

Simple one-step color coded polarity change feature without removing connector housing

Debris reduction system

Static dissipative material and housing sleeve encapsulating geometry optimized to reduce debris

DirectConec<sup>™</sup> Push-Pull System

Robust push-pull insertion and extraction via the integrated strain-relief boot for ease of use and access

Environmentally friendly

RoHS and REACH compliant without exemptions



#### Simple and Failsafe Pin Change

US Conec's MTP\* PRO design is focused on simplicity and reliability to ensure a quick and effective method for pin configuration without the need to remove the housing or handle loose pins.

- Robust tool for easy pin change process
- Factory color designated pin clamp for easy identification
- Reusable color designated pin exchanger for safe handling of pins
- Field friendly configuration with no risk for damage
- Reliable pin retention force exceeding IEC requirement of 19.6N
- No handling of loose pins
- No housing removal necessary

#### Field Pin ID Color Code

Color	Description	
Aqua	MM Elite from factory	
Yellow	SM Elite from factory	
Black	Female from factory	

Black

Pin Exchanger :

Pin Clamp Color Identification:





MTP<sup>®</sup> PRO Pin Change Tool

Call Parts



#### **Eliminating Pin Transfer**

As we learned in the past, plastic pin keeper components simply don't have enough structure to adequately hold the 700µm MT guide pins in place. US Conec novel pin keeper design for the MTP® PRO employs a rotating metal pin keeper which is securely and automatically locked into place via use of the ferrule spring. Actuation of the specially designed tool is necessary to rotate the pin keeper when changing from pinned to unpinned.

## No degradation in Pin Retention after 200 cycles!

MTP <sup>®</sup> PRO Guide Pin Pull Out Force			Competitive Guide Pin Pull Out Force	
Force (N)		Forc	Force (N)	
1	47.8	1	7.2	
2	49.8	2	6.3	
3	47.9	3	4.3	
4	48.7	4	6.6	

\*IEC 61754-7 pin retention force: 19.6N Minimum



Extraction Force: F

## **Reliable One Step Polarity Change**

The MTP<sup>®</sup> PRO polarity change feature offers a quick and efficient method for field configuration. One simple insertion into the polarity change port reverses the keying configuration by retracting the exposed key while simultaneously extracting a hidden key on the opposite side of the connector.

- No housing removal necessary
- Simple insertion into the polarity change port reverses polarity
- Both keys are permanently mounted into the MTP<sup>®</sup> PRO housing
- Keys are color coded to indicate field or factory setting



Black key from the factory setting is exposed



Insertion of MTP<sup>®</sup> PRO connector into tool reverses the key



After removal from tool, the black key is retracted and the white key is exposed

## Why Change Polarity? Isn't polarity standardized?

'Standardized' Polarity for array fiber connectors is a bit of a misnomer. TIA has established multiple methods for managing duplex Tx/ Rx devices with single row multi-fiber trunk cables and some of those methods include varying provisions on how to manage polarity for multi-channel Tx/Rx links. Furthermore proprietary variants exist from structured cabling companies. The end result is a plethora of cable and adapter types in the field driving a need for simple field configurability.

## MTP® PRO Field Configurable Polarity Convention



Black key exposed corresponds to factory polarity setting



White key exposed corresponds to field polarity setting



## **Logistical Simplification**

With multiple standardized and non-standardized methods for maintaining polarity in MPO-based structured cabling, an endless number of scenarios may be encountered in the field. Field configurable polarity saves time, eliminates costly errors, requires less pre-planning and reduces cabling inventory resulting in a total lower cost cabling infrastructure.

#### Simplified Use: Easy insertion and extraction

The push-pull functionality of the traditional MPO format requires the installer to push on the strain relief portion of the connector for insertion while extracting the connector by pulling on the often hard to reach external sleeve.

The MTP<sup>®</sup> PRO with integrated DirectConec<sup>™</sup> technology simplifies this action by re-inventing the insertion function of the MPO format such that the strain relief boot can be used for insertion in addition to the normal extraction as is the natural tendency of the installer. The MTP<sup>®</sup> PRO push-pull sleeve has an increased length, making it easier to access without compromising connector footprint. In addition, the MTP<sup>®</sup> PRO DirectConec<sup>™</sup> system enables even easier access to mate and unmate the connector in extremely dense applications.

- Simply push on the DirectConec<sup>™</sup> push-pull boot for insertion
- Pull on the DirectConec<sup>™</sup> push-pull boot for extraction
- Fully intermateable with standards compliant MPO adapters and plugs
- Reduced insertion and extract forces



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