

As the need for bandwidth speed outpaces the capabilities for physical expansion, networks are evolving by offering higher density higher throughput solutions. This allows for increased data rate performance without having to invest in new physical locations. MPO cables provide high-density termination capabilities and are an ideal choice for delivering the fastest link and enabling high-speed interconnects.

Multi-fiber push on connectors (MPO) are multi-fiber cables terminated in a single connector. They are typically available in 8, 12 or 24 fibers and are common for data center and LAN environments. They ease cable management and allow faster deployment in duplex 10 Gig fiber applications.

You may also see the term MTP used interchangeably with MPO connectors, but the term MTP is a registered trademark of US Conec to describe their brand's offered connector. Moving forward in this article, we will be using the term MPO, which offers the same benefits.

MPO cables can be broken down into three categories: MPO Patch Cables, MPO Conversion Cables, and MPO Breakouts. Each type of cable is available in numerous configurations including standard, riser or LSZH jackets and OM3, OM4 or OM5 modes.



Patch Cables

MPO cables are all about high speed and high density, which have been designed for the reliable and quick operations in data centers. Depending on how many fibers the cable uses it can replace 8, 12, or 24 single cables with one cable. Benefits of these cables are less space requirements and improved scalability, providing significant space and cost savings. The MTP/MPO cables are generally used for 40GbE and 100GbE network environments.







Breakouts

Breakout cables have an MPO connector on one side and standard fiber connectors (LC & SC) on the other. Typically they are connected to switches, transceivers or cassettes. This cable converts a single multi-fiber cable into individual fibers so you can connect it to your equipment.





Conversion

MPO conversion cables provide greater flexibility in high-density cabling systems. They will greatly increase the capacity of an existing 12 or 24 fiber network and are a cost effective solution for 40/100/120 Gigabit connections. Installers can choose suitable cables according to current demands and future network migration planning. Conversion cables have become and effective solution for converting previously designed Base-12 backbone to the popular Base-8 and Base-24 backbones.

Base-24/3x8 Conversion Cables

Base-8 conversion cable converts an eight fiber trunk cable into a twenty-four fiber MPO connector. This enables a single MPO can plug into the transceiver. This cable also converts a Base-24 trunk to three Base-8 cables.





Base-24/2x12 Conversion Harnesses

Convert an existing Base-12 fiber to the more modern Base-8 or Base-24







Base-2x12/3x8 Conversion Harnesses

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Our new selection of Fiber Optic MPO cable assemblies offer high-speed connectivity enabling increased productivity while providing enhanced signal strength across greater distances. Our fiber optic solutions are low maintenance and future-proofed to increases in data rates and frequency and work equally well for both analog and digital transmission. Products are in-stock and available for same-day shipping.





