

# MPO Assembly Solution

A Complete High-Density Fiber Optic Connectivity Solution



MPO Jumper

#### **Features and Benefits**

- Reliable high-density, high-performance interconnections
  - Increases fiber density on fiber shelves and faceplates
  - $\circ$  Improves and simplifies fiber routing
  - $\circ$  Decreases fiber management space
- ANSI/TIA/EIA-604-5-199 FOCIS 5
   compliant
- Quick and easy connection with push-on/pull-off latching mechanism
- Low insertion loss and reflectance
- · High-speed application support
- Solution-based engineering support to meet all fiber routing requirements
  - Assistance for unique designs and configurations
- · OEM solutions for special applications

# Applications

OFS offers an extensive line of high-density MPO multifiber connector products, Reliable high-density interconnections for:

- Equipment Interconnections
- Telecommunications networks
- Broadband/CATV networks
- Data communications networks, including high-bandwidth equipment
- Interconnections for parallel optical transmitters and receivers

# **Product Description**

OFS offers an extensive line of high-density MPO multifiber connector products, including jumpers, fanouts, pigtails and connectorized cable. When you need a high-performance fiber optic connectivity solution, look to the OFS family of products featuring the MPO Connector.

Low loss single-mode MPO connectors deliver the performance and reliability needed in today's demanding high-speed broadband and data networks. Multimode LaserWave<sup>®</sup> MPO jumpers and fanouts are designed to support high-speed, short-reach, data center applications.

The MPO Connector, with its familiar push-on/pull-off insertion release mechanism, provides consistent and repeatable interconnections with up to 24 fibers in a 0.7" x 0.4" minimum footprint.

The MPO product family is available with 8, 12, and 24 fiber connectors featuring bare ribbon, tight-buffered ribbon and cordage, and includes standard adapters. Alternative fiber counts are available upon request.

### MPO Jumpers & Pigtails



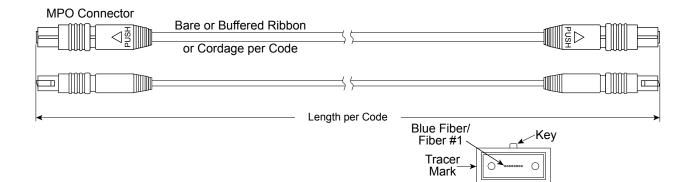
MPO jumpers and pigtails provide high-density connections in a small footprint. Low loss single-mode jumpers deliver superior loss performance for demanding, high-speed applications.

## Low-Loss MPO 8-Fiber Jumper

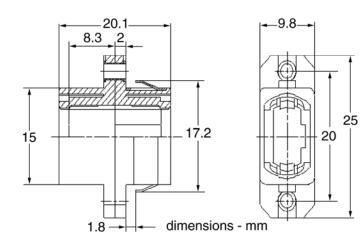
MPO jumpers and pigtails provide high-density connections in a small footprint. Low loss single-mode jumpers deliver superior loss performance for demanding, high-speed applications.

MPO Jumper Specificatio	ns			
Connector Type	Ferrule/Polish	Loss (Typical)	Loss (Max)	Return Loss (Min)
MPO	Single-Mode 8-Fiber APC	0.16 dB	0.35 dB	55 dB
MPO Multimode PC		0.10 dB	0.35 dB	20 dB
	Waltimode FC	0.10 0.5	0.55 0.5	20 00

Note: Ordering information on back page.



#### **MPO Adapters**



OFS offers standard MPO Adapters, packaged individually or in bulk quantities of 100.

MPO Adapter Ordering Inform Description	ation Comcode
MPO Adapter	300467073

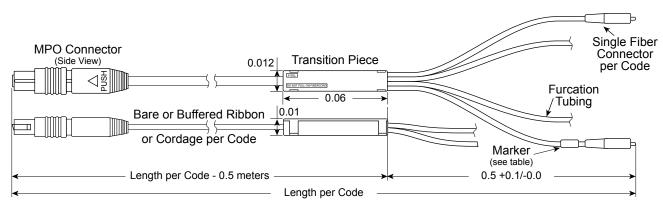
#### **MPO Fanouts**

OFS MPO fanouts provide dependable, high-quality transitions from ribbon fibers or cables to individual fiber connection ports. MPO fanouts are available with up to 12 fibers featuring FC, SC, ST and LC connectors. These fanouts offer low insertion loss and reflectance, and are available in both ruggedized and bare ribbon formats.



MPO Fanout Specifications				
Connector Type	Ferrule/Polish	Loss (Typical)	Loss (Max)	Return Loss (Min)
MPO	Single-Mode APC	0.16 dB	0.35 dB	55 dB
Single Fiber SC and LC	Single-Mode UPC	0.15 dB	0.30 dB	55 dB
Single Fiber SC and LC	Single-Mode APC	0.15 dB	0.30 dB	65 dB

*Note:* Ordering information on back page.



Fiber Number (wire marker)	Color	Fiber Number (wire marker)	Color
1	Blue	7	Red
2	Orange	8	Black
3	Green	9	Yellow
4	Brown	10	Violet
5	Slate	11	Rose
6	White	12	Aqua

Tracer Mark Blue Fiber/ Fiber #1

*Note:* In multi-ribbon cables, each ribbon is individually numbered.

Examples: It is critical to note what equipment the assembly is mating with in order to select the correct connector. Male connectors have pins and can not connect to another male connector. An angled polish connector should not be mated to a flat polish connector.

**MPO12NA-21-RCM0X-2.5M** – MPO, 12 fiber, No pins (female), polish: APC, # of connectors: 2, standard patchcord (1), bare ribbon cordage, fiber: MM – 50/125 [OM2], overall length: 2.5 meters

**MPO8PA/MPO8NU-2X-RCWBK-12F** – Conn A: MPO, 8 fiber, Pins (male), polish: APC, Conn B: MPO, 8 fiber, No pins (female), polish: PC, # of connectors: 2, hybrid patchcord (X), ribbon cordage PVC tight buffered, fiber: SM - AllWave® *FLEX*+ [G657.A2], overall length: 12 feet **MTP12PA/LCU-21-MBBPY-0.5/5M** – Conn A: MTP, 12 fiber, Pins (male), polish: APC, Conn B: LC, polish: UPC, 2.0mm furcation,
M-Pack® plenum Backbone cable ,fiber: SM – Blue Tiger, breakout length: 0.5 meter overall length (tip-to-tip): 5 meters

#### Syntax: <u>aaa bb c d / aaa bb c d – e f – gg h i j – 111 / nnn u</u> XC PE

<u>aaa</u> - Connectors	MPO, MT, MTP, MPX, LC, SC ST, FC, UNC, SCA, LCA	gg - Cordage ADDs*	RC = Bare Ribbon MP = M-Pack <sup>®</sup> Interconnect Cordage MB = M-Pack <sup>®</sup> Backbone Cable RB = Rollable Ribbon R-Pack backbone - SM Only
			RP = Rollable Ribbon R-Pack cordage - SM Only MO = M-Pack IndoorOutdoor
<u>ъ</u> ъ - Fiber Count	8,12,24	<u>h</u> - Fiber Type	3 = LaserWave FLEX 300 [OM3] 5 = LaserWave FLEX 550 [OM4] $\mathbf{w}$ = AllWave(R) Flex (G.657.A2) $\mathbf{F}$ = OM4 non-BIMMF $\mathbf{D}$ = EZ-Bend
<u>e</u> - Gender	<ul> <li>P = Pins (make)</li> <li>N = No Pins (female)</li> </ul>	<u>i</u> - Jacket Type*	<b>0</b> = Bare Ribbon $\mathbf{D}$ = Dual rate (UL 1666 riser and CPR) $\mathbf{H}$ = LSZH IEC 60332-3C $\mathbf{P}$ = Plenum
<u>d</u> - Polish	<ul> <li>U = Flat Polish</li> <li>A = Angle Polish (8°)</li> <li>Note all SM MPOs are angled, ALI MM MPOs are flat</li> </ul>	j - Jacket Color	<ul> <li>X = Bare Ribbon (no color)</li> <li>W = White (EZ-Bend Fiber)</li> <li>K = Black (Indoor/Outdoor Cordage Fiber)</li> <li>Y = Yellow (AllWave <i>FLEX</i>+ Fiber)</li> <li>A = Aqua (LaserWave 150 G+, 300, 550 Fiber)</li> </ul>
<u>e</u> - Design	<ol> <li>1 = Multifiber pigtail</li> <li>2 = Multifiber jumper or 2.0 mm fanout</li> <li>9 = 0.9 mm fanout</li> </ol>	<u>111</u> - Breakout Length	If a hybrid (multifiber to single connector [LC, SC, etc] 111 is the breakout length. Standard offering is 0.5 m. Max: 3 m. If pigtail or multifiber-to-multifiber jumper, omit.
<u>f</u> - Assembly Type	<ul> <li>1 = pigtail, jumper with same ends (ex. MPO12PU-MPO12NU), hybrid (multi- fiber to fanout (ex. MPO8NA-LCU)</li> <li>L = Low Loss 0.35 dB</li> <li>S = Super Low Loss 0.15 dB</li> <li>X = different multi-fiber connectors (ex. MT12PU-MPONU)</li> </ul>	nnn - Length	001 - 999
		<u>u</u> - Unit of Measure	<b>M</b> = Meters (min. 1 m) <b>F</b> = Feet (min. 1 ft)
		XC - Cross Fiber Pattern (optional)	
		<b><u>PE</u></b> - Pulling Eye (optional)	

		Jacket Type			
		Riser	Plenum	LSZH	Indoor/ Outdoor
	RC	R	Р	Н	0
Cordage	RC (jacketed) MP	R	Р	н	N/A
	MB	N/A	Р	N/A	
	MO	R	N/A	N/A	I/O

Note: M-Pack BAckbone Cable is only available with B Fiber (Blue-Tiger®)

\* Available jacket types are based on the chosen cordage (or vice versa). See table for determination of cordage/jacket type.

For additional information please contact your sales representative. You can also visit our website at www.ofsoptics.com or call 1-888-fiberhelp (1-888-342-3743) USA or 1-770-798-5555 outside the USA.



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