

# PanMPO™ and MPO Round Harness Cable Assemblies

## technical information

PanMPO™ and MPO Round Harness Cable Assemblies are pre-terminated 8 or 12-fiber cable assemblies. The unique design of the PanMPO™ Connector allows for rapid gender and polarity change in the field and enables a seamless, standards-compliant migration from duplex based applications (e.g. 10G Ethernet) to parallel optics based applications (e.g. 40/100G Ethernet). LC push-pull connectors reduce cable density by 40% and allow easy removal in high density installation. All cable assemblies are factory terminated and tested to deliver verified optical performance and reliability for improved network integrity.



## application

Connect multiple MPO-based infrastructure components to LC-based components, such as LAN switches, servers, patch panels, and zone distribution areas. Eight fiber, 4-to-1 conversion harnesses connect four 10G LCs to a single 40G MPO. 12-fiber breakout harnesses connect (6) LCs to (1) MPO using traditional fanout wiring.

## construction

<b>Cable type:</b>	3.0mm round indoor
<b>Cable jacket ratings:</b>	Optical Fiber Nonconductive Plenum (OFNP) Low Smoke Zero Halogen (LSZH)
<b>Fiber types:</b>	OS2 OM3 OM4
<b>Connector types end 'A':</b>	MPO female (Singlemode) MPO male (Singlemode) PanMPO™ female (Multimode) PanMPO™ male (Multimode)
<b>Fiber count:</b>	8 = 8-fiber 12 = 12-fiber
<b>Jacket color:</b>	OS2: Yellow OM3: Aqua OM4: Aqua
<b>Connector types end 'B':</b>	LC Connector (Push-Pull)

## optical properties

<b>Maximum cable attenuation:</b>	Multimode: 3.5dB/km at 850nm, 1.5dB/km at 1300nm
<b>Maximum connector insertion loss:</b>	Standard MPO: 0.50dB Optimized MPO: 0.35dB Standard LC: 0.25dB Optimized LC: 0.15dB
<b>Minimum connector Return Loss:</b>	Singlemode: 55dB minimum Multimode: 26dB minimum

## physical properties

<b>Cable outside diameter (OD):</b>	3.0mm
<b>Minimum bend radius:</b>	30mm
<b>Flex:</b>	100 cycles at 4.9N
<b>Twist:</b>	10 cycles @15N
<b>Cable retention strength:</b>	50N
<b>Connector durability:</b>	500 mating cycles*

## environmental properties

<b>Operating temperature:</b>	0°C to 60°C
<b>Storage and shipping temperature:</b>	-40°C to 70°C
<b>Installation temperature:</b>	0°C to 60°C

## standards

Meets or exceeds ISO/IEC 11801, TIA/EIA-568-C.3, TIA-604-5 (FOCIS-5), TIA/EIA-604-10 (FOCIS-10), TIA/EIA-568-C.1

RoHS Compliant

\*With proper cleaning and inspection

# PanMPO™ and MPO Round Harness Cable Assemblies

## part number

Example: FZTRP8QQSSNF003 = Fiber OM4, 12-fiber, round, plenum rated, PanMPO male to LC duplex LC harness with 61cm equal break-out, standard IL, no pulling eye, 3 feet

CHARACTER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
EXAMPLE	F	Z	T	R	P	8	N	Q	S	S	N	F	0	0	3

### 1 – Fiber Product

F = Fiber

### 2 – Fiber Type

9 = Singlemode

X = OM3

Z = OM4

### 3 – Fiber Count

T = 12-fiber

8 = 8-fiber

### 4 – Cable Type

R = Round

### 5 – Jacket Type

L = Low Smoke Zero Halogen (LSZH)

P = Optical Fiber Nonconductive Plenum (OFNP)

### 6 – Connector Type End “A”

5 = Singlemode MPO Female

6 = Singlemode MPO Male

7 = Multimode PanMPO™ Female

8 = Multimode PanMPO™ Male

### 7 – Connector Variant

N = No variant

### 8 – Connector Type End “B”

Q = Push/Pull Duplex LC

### 9 – Connector Variant

S = 24-inch (61 cm)

### 10 – Performance/Construction

S = Standard IL / Standard Fanout (Singlemode)

O = Optimized IL / Standard Fanout (Multimode)

Q = Standard IL / 4-to-1 Conversion (Singlemode)

V = Optimized IL / 4-to-1 Conversion (Multimode)

N = Ultra Low IL/Standard Fanout (OM4 Only)

### 11 – Other

N = No variant

### 12 – Unit of Length

M = Meters

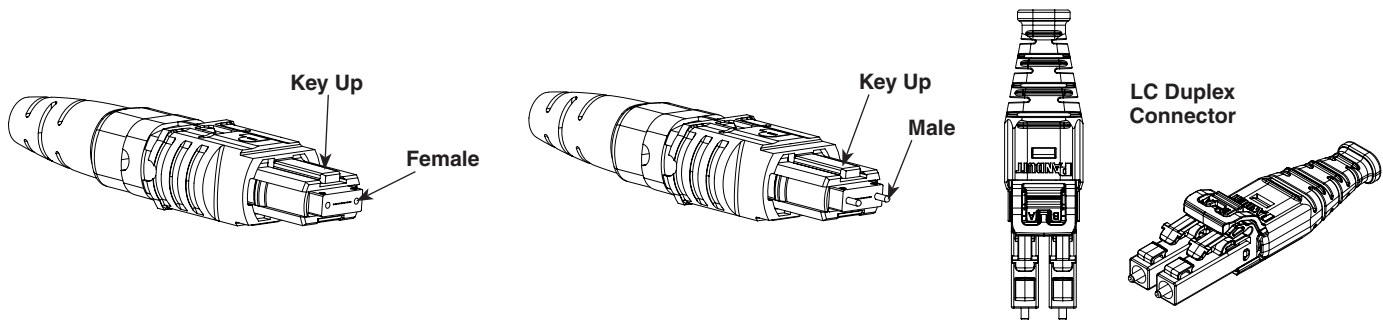
F = Feet

### 13, 14, 15 – Length

Meters: 001 to 010, 1.5, 2.5, 3.5, 4.5

Feet: 003 to 030

## harness assembly detail



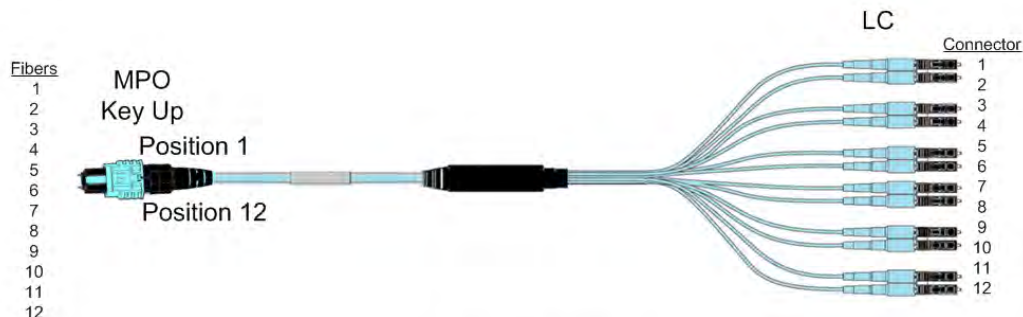
## 8 Fiber Harness



8 Fiber Standard Harness												
MPO End/LC End	Fiber Position From MPO End to LC End											
MPO	n/a	n/a	3	4	5	6	7	8	9	10	n/a	n/a
LC	n/a	n/a	1	2	3	4	5	6	7	8	n/a	n/a
8 Fiber 4 to 1 Conversion Harness												
MPO End/LC End	Fiber Position From MPO End to LC End											
MPO	1	2	3	4	n/a	n/a	n/a	n/a	9	10	11	12
LC	1	3	5	7	n/a	n/a	n/a	n/a	8	6	4	2

# PanMPO™ and MPO Round Harness Cable Assemblies

## 12 Fiber Harness



12 Fiber Standard Harness												
MPO End/LC End	Fiber Position											
	From MPO End to LC End											
MPO	1	2	3	4	5	6	7	8	9	10	11	12
LC	1	2	3	4	5	6	7	8	9	10	11	12

### WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT CANADA  
Markham, Ontario  
cs-cdn@panduit.com  
Phone: 800.777.3300

PANDUIT EUROPE LTD.  
London, UK  
cs-emea@panduit.com  
Phone: 44.20.8601.7200

PANDUIT SINGAPORE PTE. LTD.  
Republic of Singapore  
cs-ap@panduit.com  
Phone: 65.6305.7575

PANDUIT JAPAN  
Tokyo, Japan  
cs-japan@panduit.com  
Phone: 81.3.6863.6000

PANDUIT LATIN AMERICA  
Guadalajara, Mexico  
cs-la@panduit.com  
Phone: 52.33.3777.6000

PANDUIT AUSTRALIA PTY. LTD.  
Victoria, Australia  
cs-aus@panduit.com  
Phone: 61.3.9794.9020

For a copy of Panduit product warranties, log on to [www.panduit.com/warranty](http://www.panduit.com/warranty)

For more information

Visit us at [www.panduit.com](http://www.panduit.com)

Contact Customer Service by email: [cs@panduit.com](mailto:cs@panduit.com)  
or by phone: 800.777.3300

©2015 Panduit Corp.  
ALL RIGHTS RESERVED.  
FBSP93--WW-ENG  
Replaces FBSP81--WW-ENG  
1/2015

**PANDUIT**®