

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

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

optical properties

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

physical properties

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

environmental properties

Operating temperature:	0°C to 60°C
Storage and shipping temperature:	-40°C to 70°C
Installation temperature:	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 breakout, 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

L = LC Duplex

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

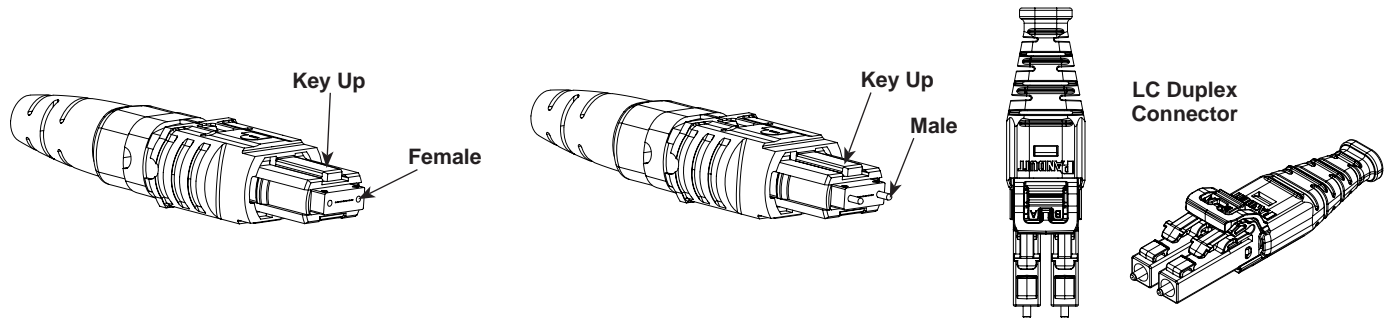
F = Feet

13, 14, 15 – Length

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

Feet: 003 to 030

harness assembly detail



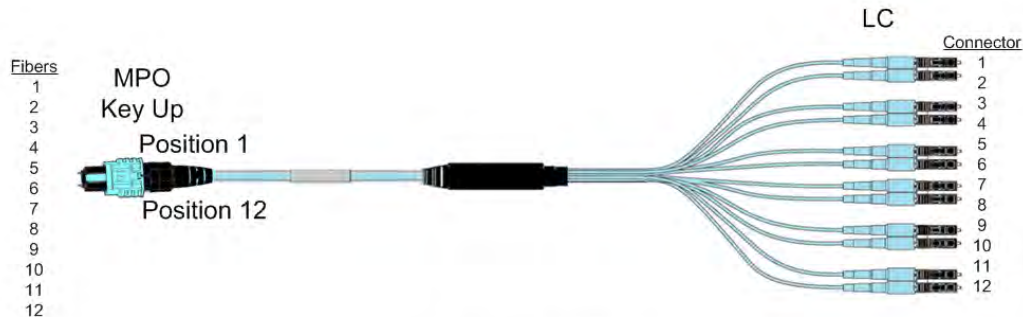
8 Fiber Harness



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

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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

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