

MPO-16 (APC) Trunk Cable Assemblies

specifications

MPO-16 Trunk Cable Assemblies shall allow for rapid deployment of high-density permanent links in a single assembly for data center applications requiring quick infrastructure deployment, such as main, horizontal, and zone distribution areas. Trunk cable assemblies shall optimize cable routing requirements to ensure efficient use of pathway space and significantly reduce installation time and cost. MPO-16 Trunk Cable Assemblies are built with modular MPO connectivity and provide compatibility, flexibility, and system performance in all permanent link applications. MPO-16 trunk cable assemblies are factory terminated and tested to deliver verified optical performance and reliability to support all MPO-16 applications including 400G-SR8, 800G-SR8 as well as 800GBASE-DR8. These ultra high bandwidth applications are used for high speed switch to switch links, and to support artificial intelligence (AI) and machine learning (ML) applications. MPO-16 trunk cable assemblies shall allow for rapid deployment and breakout of parallel applications such as 400GBASE-SR8 to duplex 8x50GBASE-SR.



applications

Allows system designers to tailor configuration, reach, and breakout construction to application requirements; to minimize waste, optimize cable management, speed deployment, improve flexibility and manageability for lower installation costs. Small diameter trunk cable assemblies use 30% – 40% less space which is ideal for high cable density applications.

construction

Cable type:	Indoor Small Diameter Trunk
Cable jacket rating:	Plenum LSZH EuroClass Cca
Fiber types:	Singlemode: OS2 9/125µm Multimode: OM4 50/125µm OM4+ 50/125µm OM5 50/125µm
Connector types end 'A':	MPO-16 APC Female or Male
Connector types end 'B':	MPO-16 APC Female or Male, MPO-8 Female or Male, PanMPO-8 Female or Male, LC Duplex, LC Uniboot Push Pull, Pigtail
Fiber count:	16
Jacket color:	OS2 Yellow OM4 Aqua OM4+ Aqua OM5 Lime

optical properties

Maximum connector insertion loss:	Standard Singlemode MPO: 0.75dB Standard Multimode MPO: 0.50dB Optimized Multimode MPO: 0.35dB Standard Singlemode LC: 0.35dB Standard Multimode LC: 0.15dB
Maximum connector return loss:	Singlemode: 55dB Multimode: 30dB

physical properties

Cable outside diameter (OD):	16-fiber: 5.4mm
Cable construction:	250µm Distribution Cable
Minimum bend radius:	Under load: 20 × Cable OD Static: 10 × Cable OD
Cable tensile strength:	440N (100 lbs.)
Cable compressive load:	100 N/mm
Connector durability:	500 mating cycles*
Breakout outside diameter:	MPO 4.0mm LC 2.0mm
Breakout length:	1m

*With proper cleaning and inspecting.

environmental properties

Operating temperature:	-20°C to 70°C (-4°F to 158°F)
Storage and shipping temperature:	-40°C to 70°C (-40°F to 158°F)
Installation temperature:	-10°C to 60°C (14°F to 140°F)

standards

Meets or exceeds:	ISO/IEC 11801, TIA/EIA-568-C.3, TIA-604-5 (FOCIS-5), TIA/EIA-568-C.1, GR-409-CORE, ICEA S-83-596, RoHS Compliant
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part number configurator

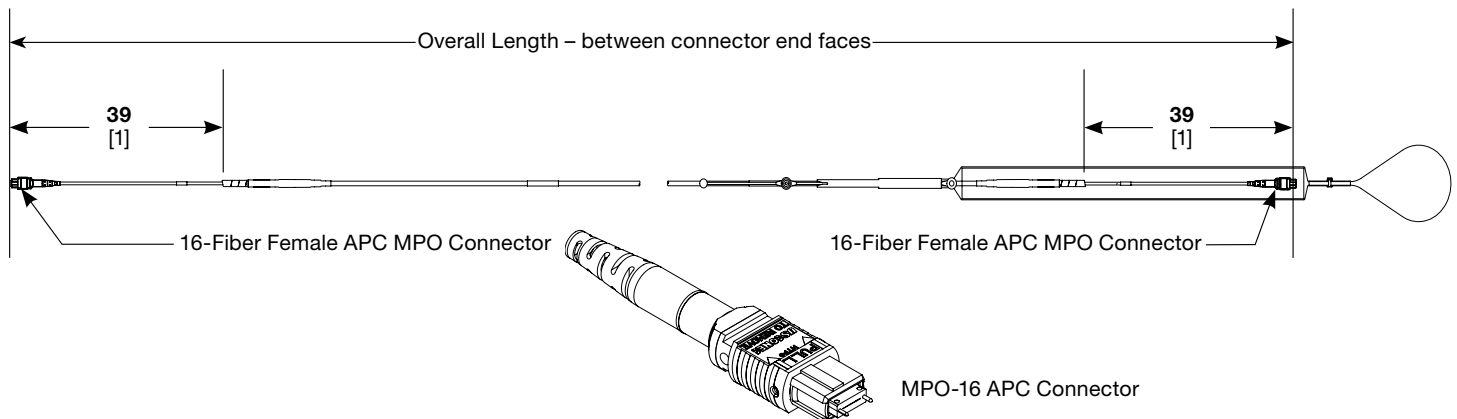
FYZCPOJY025F030 = OM4 16-Fiber, Indoor Small Diameter Trunk, Plenum, 1x MPO-16 Female APC with 1m breakout to 2x PanMPO-8 Female with 1m breakout, Polarity B, Optimized IL, Pulling Eye End A, 30 feet

Character	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Example	F	Y	Z	C	P	O	J	Y	0	2	5	F	0	3	0

<p>1 – Fiber F = Fiber</p> <p>2 – Cable Type Y = Indoor small diameter trunk cable</p> <p>3 – Fiber Type 9 = OS2 Singlemode 9/125µm Z = OM4 50/125µm S = OM4+ 50/125µm W = OM5 50/125µm</p> <p>4 – Fiber Count C = 16-Fibers</p> <p>5 – Jacket Type P = Plenum L = LSZH C = LSZH EuroClass Cca</p>	<p>6 – Connector Type (End A) O = MPO-16 APC Female M = MPO-16 APC Male</p> <p>7 – Connector Type (End B) G = MPO-8 Female H = MPO-8 Male J = PanMPO-8 Female K = PanMPO-8 Male O = MPO-16 Female APC (SM & MM) M = MPO-16 Male APC (SM & MM) X = MPO-8 Female APC (SM) Y = MPO-8 Male APC (SM) V = PanMPO-8 Female APC (SM) W = PanMPO-8 Male APC (SM) L = Duplex LC (SM & MM) P = LC Uniboot Push Pull (SM & MM) B = Duplex LC APC (SM) 9 = LC Uniboot Push Pull APC (SM) U = Pigtail</p>	<p>8 – Construction/Performance A = Method A, Standard IL (SM) B = Method B, Standard IL (SM) X = Method A, Optimized IL Y = Method B, Optimized IL 4 = 8 to 1 U2 Polarity Standard IL (MPO to LC only) 5 = 8 to 1 U2 Polarity Optimized IL (MPO to LC only) 7 = 8 to 1 U (Pair Flipped) Polarity Standard IL (MPO to LC only) 8 = 8 to 1 U (Pair Flipped) Polarity Standard IL (MPO to LC only)</p> <p>9-11 – Serial</p> <p>12 – Unit of Measure F = Feet M = Meters</p> <p>13, 14, 15 – Cable Assembly Length 015 – 999 Feet 005 – 999 Meters</p>
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Serial	Transition	Pulling Eye
021	HD Flex	Yes
022	HD Flex	No
023	HD Flex to pigtail	Yes
024	HD Flex to pigtail	No
025	Standard	Yes
026	Standard	No
027	Standard to pigtail	Yes
028	Standard to pigtail	No

small diameter trunk cable assembly detail



Dimensions are in inches. [Dimensions in brackets are metric].

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