



MTP* Optical Round Ribbon Cable Assemblies

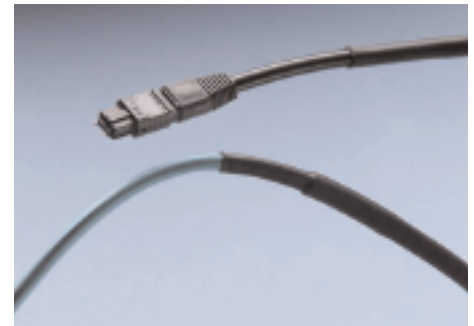
86282

Optical Round Ribbon Cable Assemblies Offer Greater Flexibility in Interconnecting Optical Network Systems

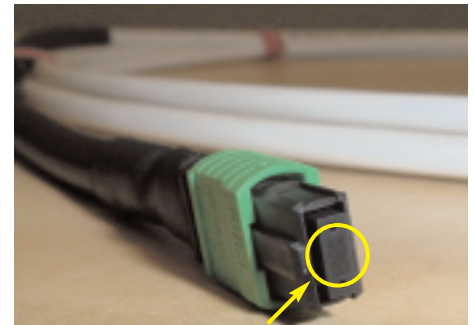
Molex's MTP round jacketed ribbon cable assemblies provide easier installation than traditional flat ribbon cables in optical networks. System designers and installers have found it difficult to route flat ribbon cable in complex networks. The use of round ribbon cables allows the installer greater flexibility when routing multiple jacketed cables in dense system networks.

Molex developed a patent pending transition sleeve which maintains the routing features of the round cable while allowing the cable to be secured to the MTP connector. The primary benefit of the round

ribbon cable is realized with the use of multiple ribbons within a single jacket. Stacked ribbons in traditional flat jacketed ribbon cables are prone to piston in relation to each other, causing attenuation in longer cable assemblies. The round ribbon cable prevents the "pistoning" effect by encasing the ribbons in a solid buffer core, preventing them from moving. Fiber counts up to 24 fibers are currently available while development continues on the 48 and 72 fiber versions.



MTP Round Ribbon Cable Assembly with Long Transition Sleeve



Proto-type Round Ribbon 72 Fiber Cable Assembly

Features and Benefits

- Round outer jacket is easily installed by end user
- Flexible PVC outer jacket is able to bend easily
- Plenum-rated meets system flammability requirements
- Ribbons encased in solid buffer core ensures reduced fiber pistoning between ribbons
- Multiple ribbons stacked inside round jacket provide a low-profile solution for high-density applications

SPECIFICATIONS

Reference Information

Packaging: Custom per assembly
Mates With: MPO and MTP Connectors
(86081 & 86082 Series)

Optical

Fiber Specifications:

Core: 50µm[†]
Clad: 125µm
Coating: 250µm

Insertion Loss (IL):

12F: 0.15 dB Typ. <0.5dB max.
24F: 0.25 dB Typ. <0.75dB max.
72F: 0.35 dB Typ. <1.00dB max.

Attenuation:

850nm: Typ 2.5 dB/km
Max 3.0 dB/km

Min. Overfilled Bandwidth:

850nm: 500 MHz/km
1300nm: 500 MHz/km

Mechanical

Min. Bend Radius: 3 inches for 12 fibers
(10X the outer jacket diameter)
Max. Tensile Rating: 667.23N (150 lbf)

Physical

Outer Jacket: PVC

Fire Rating: OFNR (Riser) and OFNP (Plenum)

Operating Temp.: -20 to +70°C

Storage Temp.: -40 to +70°C

Install Temp.: -0 to +70°C

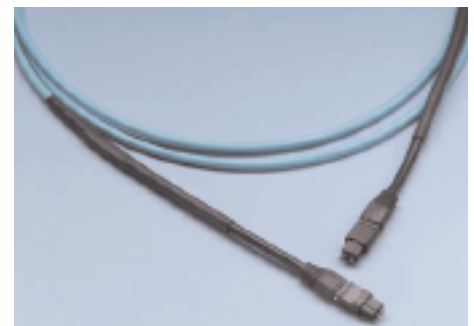
Dimensions:

12F (2 Ribbons x 6 Fibers): 3.3mm OD
16F (2 Ribbons x 8 Fibers): 4mm OD
24F (2 Ribbons x 12 Fibers): 5mm OD
48F (4 Ribbons x 12 Fibers): N/A[‡]
72F (6 Ribbons x 12 Fibers): N/A[‡]

*MTP is a registered trademark of US Conec Ltd.

[†]Singlemode (9/125µm) and Multi-mode (62.5/125µm) may be available with Minimum Order Quantity

[‡]Under development



MTP to MTP Round Ribbon Cable Assembly

- Parallel optic transceiver interconnection
- High Density interconnects for:
 - Optical electrical modules
 - PC cards and patch panels
 - Optical switches and routers
 - Data communication centers


ORDERING INFORMATION
Cable Assemblies: Transition Sleeve Boot Options

Order No.	Description	Transition Sleeve	Boot Type	Bend Management
86282-4817	Typical Optical MTP Round Ribbon Cable Assembly Drawing with Long Transition Sleeve Dimensional Specifications	Long	Straight	90° Parallel Only Bend
86282-4851		Long	60°	360° Rotatable Bend
86282-4852		Long	90°	90° Parallel Only Bend

Cable Assemblies: No Transition Sleeve Boot Options

Order No.	Description	Transition Sleeve	Boot Type	Bend Management
86282-4853	Typical Optical MTP Round Ribbon Cable Assembly Drawing with No Transition Sleeve Dimensional Specifications	None	Straight	90° Parallel Only Bend
86282-4854		None	60°	60° Parallel Only Bend
86282-4855		None	90°	90° Parallel Only Bend

Notes:

- Only sold as terminated jumpers or pigtails
- The cable construction will be customer and system specific
- All new opportunities should be reviewed with the Molex Fiber Optics program or product manager

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