FS

MTP®/MPO Breakout Cable Datasheet

IDEAL FOR DATA CENTER HIGH DENSITY CABLING SYSTEM

Designed for Storage Area Network (SAN) , Local Area Network (LAN) switch, Equipment Distribution Area (EDA) patch field applications.

MTP®/MPO Breakout Cable

MTP®/MPO breakout assemblies are used in parallel optics and duplex transmission cross connect systems to increase cable density between switch and server cabinets. Designed for high-density fiber patching in data centers, they ensure peak performance throughout your local area network. Allow for rapid deployment of high-density, multi-port patch field connectivity for Storage Area Network (SAN) applications.

Standards Compliance

• RoHS, CE (EN 50575 CPR), ISO9001 and WEEE Compliant
• EIA/TIA, Telecocordia GR-326-CORE Standards
• IEC61754-7
• TIA 605-4 (FOCIS 5)
• YD/T1272.5

Features

• US Conec MTP® connectors, Senko MPO Plus® premium connectors

• Corning Clearcurve® multimode fiber, SMF-28® Ultra optical fiber

• LC, MDC, SC, FC, ST connectors available

• OS2, OM4, OM3 available

• 0.35dB elite low loss connector

• Custom staggering options available on tails

• Factory terminated and tested

• Pulling eyes are provided as an option to protect the fiber ends during installation

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Technical Specification

Construction	Description
Fiber Count	8-144 Fibers
Fiber Mode	Single Mode: OS2 9/125μm Multimode: OM4 50/125μm, OM3 50/125μm
Fiber Brand	Corning ClearCurve® multimode fiber and SMF-28® Ultra optical fiber
Connector A	MTP® Female, Male; MPO Female, Male
Connector Brand	US Conec MTP®, Senko MPOPlus®
Connector B	LC, MDC, SC, FC, ST
Polarity	Type A, Type B, Type C
Cable Jacket Ratings	Plenum (OFNP) LowSmoke Zero Halogen (LSZH) Riser (PVC)

Color Codes	MTP®	MPO	LC	MDC
Cable Jackets	OS2: Yellow OM4: Magenta OM3: Aqua	OS2: Yellow OM4: Magenta OM3: Aqua	OS2: Yellow OM4: Magenta OM3: Aqua	OS2: Yellow
Connectors	OS2: Green OM4/OM3: Magenta/Aqua	OS2: Green OM4/OM3: Aqua	Single Mode: UPC Blue, APC Green Multimode: Magenta/Aqua	Single Mode: UPC Blue
Boots	8 Fibers: Grey 12 Fibers: Black 24 Fibers: Red	8/12/24 Fibers: Black	Single Mode: UPC White, APC Green Multimode: Beige	Single Mode: UPC Black

Technical Specification

Physical Properties	Description
Cable Diameter *	3.0mm
Breakout Leg	Duplex: 2.0mm, Simplex: 0.9/2.0mm
Breakout Length	0.3/0.5m
Minimum Bend Radius	Single Mode: 10.0mm, Multimode: 7.5mm
Operating Temperature	-10°C to +70°C
Storage Temperature	-40°C to +85°C

* Please kindly note that the cable diameter of standard single mode MTP®/MPO cable is 3.0mm, and as for cables with different bundles, the trunk diameter is different, as shown below.

Bundle Count	MTP®/MPO-12	MTP®/MPO-24	Trunk Diameter
2 Bundles*	24 Fibers	48 Fibers	7.2mm
3 Bundles	36 Fibers	72 Fibers	9.3mm
4 Bundles	48 Fibers	96 Fibers	9.5mm
6 Bundles	72 Fibers	144 Fibers	11.7mm
8 Bundles	96 Fibers	/	12.01mm
12 Bundles	144 Fibers	/	17.3mm

* The "bundle" means a combination of several fibers. For example, as for MTP®/MPO-12 cables, 2 bundles mean 24 Fibers(2x 12F) ; for MTP®/MPO-24 cables, 2 bundles mean 48 Fibers(2x 24F).

Technical Specification

Construction	Description	
Wavelength (nm)	Single Mode: 1310/1550 Multimode: 850/1300	
Transmission Distance	OM4: 150m at 40/100G, 400m at 10G OM3: 100m at 40/100G, 300m at 10G	
Connector	**MTP®/MPO**	
Fiber Mode	Single Mode	Multimode
Attenuation (dB/km)	≤0.32 at 1310nm ≤0.18 at 1550nm	≤2.3 at 850nm ≤0.6 at 1300nm
Insertion Loss (dB)	≤0.35	≤0.35
Return Loss (dB)	APC: ≥60, UPC: ≥50	UPC: ≥20
Connector	**LC/SC/FC/ST**	**MDC**
Fiber Mode	Single Mode Multimode	Single Mode
Insertion Loss (dB)	APC: ≤0.3, UPC: ≤0.2 UPC: ≤0.2	UPC: ≤0.3
Return Loss (dB)	APC: ≥60, UPC: ≥50 UPC: ≥30	UPC: ≥50

Technical Drawing
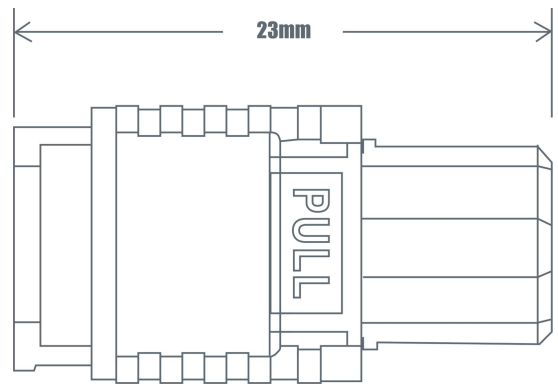
Total Length

Breakout Length
(0.5m Std.)
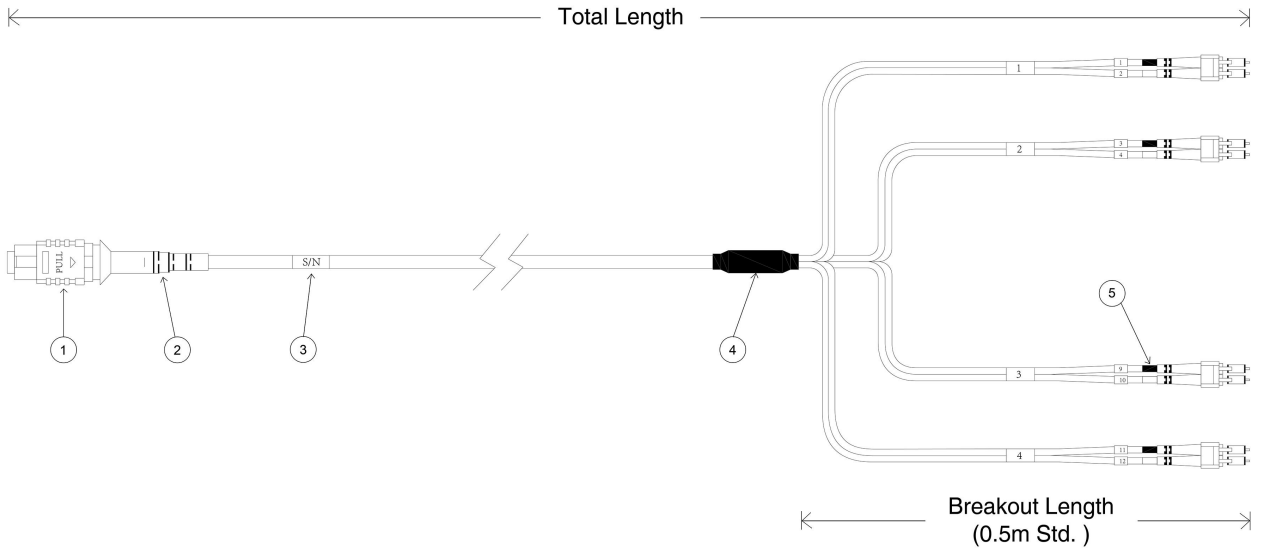
1. MTP®/MPO Connector   2. Connector Boot   3. Serial Number Label   4. Fan Out Kit   5. LC Connector

23mm

7.6mm

12.5mm

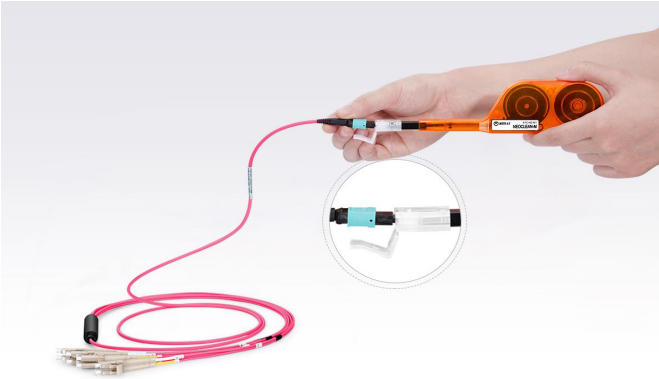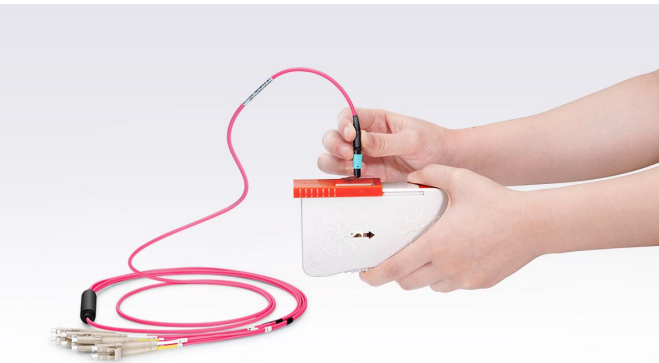PULL
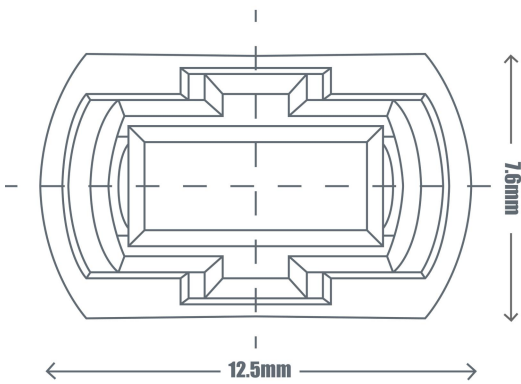
Fiber Optic Cleaning

NEOCLEAN-M One-Push Cleaner

Characteristics

· For cleaning ferrules pinned or non-pinned.

· Designed for cleaning the ferrule end-faces of MTP®/MPO

  connectors.

· Narrow design reaches tightly spaced MTP®/MPO adapters.

· Cost effective tool for cleaning fiber end-faces without the

  use of alcohol.

CLE-BOX Fiber Optic Cassette Cleaner

Characteristics

· Made of non-alcohol superfine fiber ideal for fiber optic

  cleaning.

· Widely used in optical network maintenance, engineering

  or equipment.

· Cassette tapes are available for replacement after 500+

  cleaning operations to ensure low cleaning cost.

ID	Description
#39697	NEOCLEAN-M One-Push Cleaner for MPO/MTP® Connector (600 cleans)

Test Center

Comprehensive performance testing system ensures more secure operation and keeps more stable and reliable data connection. 3D interferometer provides verification of MTP®/MPO polishing process, and making all parameters of the polished MT ferrule complies and exceeds industry standards. Clean optical connectors are paramount in providing a reliable, high-performance fiber optic infrastructure.

Professional Test Equipment

Test Assured Program

3D Interferometer Test

End-Face Inspection

Test Report of IL & RL

MTP®/MPO Breakout Cable Products List

ID	Description
#68047	1m (3ft) MTP® Female to LC, 8 Fibers OM4, Type B, Elite, Plenum
#68048	1m (3ft) MTP® Female to LC, 8 Fibers OS2, Type B, Elite, Plenum
#139611	1m (3ft) MTP® Female to MDC, 8 Fibers OS2, Type B, Elite, Plenum

United Kingdom

Russia

Germany

United States

China

Singapore

Australia

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