

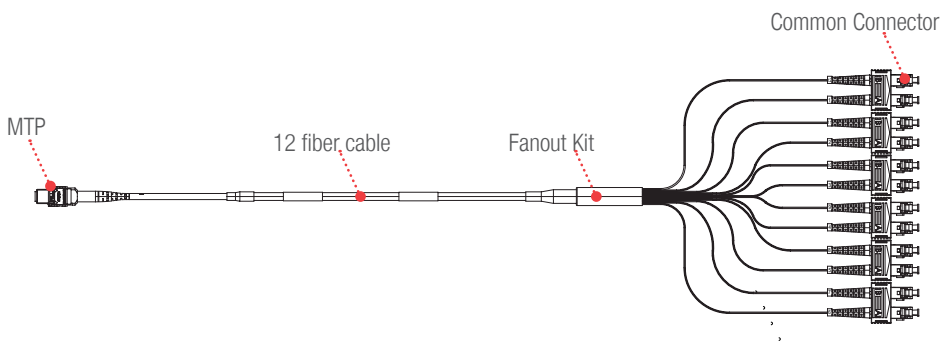
MTP-X fiber optic cable assembly



Molex Plug and Play Advanced Fibre Optic Systems offer premium factory-controlled optical performance, enable flexible system configuration and fast, economical installation.

MTP-X fiber optic cable assembly is ideal for mission critical applications such as Data Centres and Storage Area Networks, applications where fast installation is paramount and environments where moves adds and changes are frequent or managed in-house.

Features and Advantages



MTP-X fiber optic cable assembly

Round, flexible outer jacket is easy to bend, route and install

Available in different sheath type

Industry-leading low insertion loss MTP connector optional(0.35dB Maximum Insertion Loss for Laser Optimised OM3/4/5 Cables and OS1/2 Cables, 0.1dB Typical)

Cables available in 8 to 144 fibre constructions

MTP-X Fibre Optic Cables are 100% tested

Pulling eyes installed to protect the assembly during installation

8/12/24 fiber MTP connector optional

Female/male MTP connector optional

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Specifications

REFERENCE INFORMATION

Commercial Standards:
International: ISO/IEC 11801
North American: ANSI/TIA/EIA-568-C.3
EN 50173-5, IEC 60794-20, ISO/IEC 24764

Flame resistance: IEC 60332-1; IEC 60332-3-24;
IEC 60754-2; IEC 61034

Applications

MTP-X systems are designed to support a variety of high-speed network topologies including:
IEEE 802.3 10GBase-SR/SW 10Gbps
IEEE 802.3 10Gbase-LX4 10Gbps
Fibre Channel 400-M5-SN-1 4Gbps
Fibre Channel 1200-M5E-SN1 10Gbps
Fibre Channel FC-PH 1Gbps
IEEE 802.3 1000Base-SX/LX 1Gbps

FDDI 100Mbps
IEEE 802.3 FOIRL 10Mbps
IEEE 802.3 10Base-F 10Mbps
ATM 155 Mbps, 622 Mbps, 1.2 Gbps, 2.4 Gbps

MECHANICAL

Durability: 1,000 Cycles
Guide Pin Retention: 3 lbs
Default Jacket Colors:
Multimode OM1: Orange
Multimode OM2: Grey
Multimode OM3: Aqua
Multimode OM4: Erika Violet/Aqua
Multimode OM5: Lime Green
Single Mode: Yellow

FOR SUPPLY TO EU MARKET

Flame resistance
LSHF-FR(FRNC): EN 50399 Class D_{ca};Class E_{ca}

Sheath: Halogen Free, flame resistant thermoplastic sheathing compound acc. to EN 50290-2-27, UV stabilised.

ELECTRICAL:

Electrical/Optical Characteristics
Connector performance-MTP

a. MULTI MODE

CONNECTOR MATING	INSERTION LOSS	RETURN LOSS
MM LOW LOSS	0.1dB Average 0.35dB Maximum	NA
MM STANDARD LOSS	0.20dB Average 0.60dB Maximum	NA

b. SINGLE MODE

CONNECTOR MATING	INSERTION LOSS	RETURN LOSS
SM LOW LOSS	0.10dB Average 0.35dB Maximum	> 60 dB
SM STANDARD LOSS	0.25dB Average 0.75dB Maximum	> 60 dB

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ELECTRICAL:

Electrical/Optical Characteristics

Connector performance-LC,SC,ST,FC.

CONNECTORS	MULTIMODE			SINGLE MODE		
	IL AVERAGE (dB)	IL MAX. (dB)	RETURN LOSS (dB)	IL AVERAGE (dB)	IL MAX. (dB)	RETURN LOSS (dB)
LC	0.15	0.30	NA	0.18	0.25	>55/65
LC Enhanced	0.08	0.15	NA	0.12	0.30	>55/65
SC	0.15	0.30	NA	0.18	0.25	>55/65
SC Enhanced	0.08	0.15	NA	0.12	0.30	>55/65
FC	0.15	0.3	NA	0.18	0.25	>55/65
FC Enhanced	0.08	0.15	NA	0.12	0.30	>55/65
ST	0.15	0.3	NA	0.18	0.25	>55/65
ST Enhanced	0.08	0.15	NA	0.12	0.30	>55/65

Optical fiber specifications

Multimode :

Cable performance.

Designation	Core OD (um)	Cladding OD (um)	Attenuation @850nm (dB/km)	Attenuation @953nm (dB/km)	Attenuation @1300nm (dB/km)	Over filled launch		Laser effective Modal Bandwidth
						Min.Band @850nm (MHz/km)	Min.Band @1300nm (MHz/km)	Min.Band @850nm (MHz/km)
OM1	62.5	125 +/-1	≤3.5 max	NA	≤1.5 max	≥ 200	≥ 500	NA
OM2	50	125 +/-1	≤3.5 max	NA	≤1.5 max	≥ 500	≥ 500	NA
OM3	50	125 +/-1	≤3.5 max	NA	≤1.5 max	≥ 500	≥ 500	≥ 2000
OM4	50	125 +/-1	≤3.5 max	NA	≤1.5 max	≥ 3500	≥ 500	≥ 4700
OM5	50	125 +/-1	≤3 max	≤2.3 max	≤1.5 max	≥ 3500	≥ 500	≥ 4700

Single mode: (Fibre shall conform to requirements of ITU-T G.652D.)

Cable performance.

Designation	Core OD (um)	Cladding OD (um)	Maximum Attenuation Coefficient (dB/km)
OS1/2	9	125 +/-1	≤ 0.38 max (1300nm) ≤ 0.22 typ (1550nm)

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Simplex 900um Non-Jacketed Cable

Buffer Diameter 900um
 Primary Coating 245um
 Stripping Options Buffer (Standard), Easy Strip
 1.5m

Jacketed Simplex Cables, 2mm

Outer Diameter 2.0mm \pm 0.1mm
 Buffer Diameter 900um
 Primary Coating 245um
 Strength Member Aramid Yarn

Jacketed Duplex Zip Cables, 2mm

Outer Dimensions 2.0mm \pm 0.1mm x 4.1 \pm 0.2
 Buffer Diameter 900um
 Primary Coating 245um
 Strength Member Aramid Yarn

PARAMETER	UNIT	2-24	2-24 Dual jacket	48	72	96	144
Crush	N/100mm	500	1000	1000	1000	1000	1000
Strength member	--	Aramid	Aramid	FRP/Aramid	FRP/Aramid	FRP/Aramid	FRP/Aramid
Storage temperature	°C	-20 to 60	-20 to 60	-20 to 60	-20 to 60	-20 to 60	-20 to 60
Installation temperature	°C	-5 to 50	-5 to 50	-5 to 50	-5 to 50	-5 to 50	-5 to 50
Operating temperature	°C	-20 to 60	-20 to 60	-20 to 60	-20 to 60	-20 to 60	-20 to 60
Primary buffer diameter	µm	250	250	250	250	250	285
Fibre count	n	2 to 24	2 to 24	48	48	96	144
Nominal outer diameter	mm	2.95 \pm 0.1	4.5 \pm 0.1	9.0 \pm 0.5	9.0 \pm 0.5	13.5 \pm 0.5	13.5 \pm 0.5
Inner Jacket diameter			2.95 \pm 0.1				
Nominal weight	kg/km	7	7	79	79	178	178
Maximum tensile load	N	Short term 200	Short term 400	Short term 1000	Short term 1000	Short term 1000	Short term 1000
Maximum tensile load	N	Long term 60	Long term 150	Long term 300	Long term 300	Long term 300	Long term 300
Minimum bend radius	mm	Installed 30 mm	Installed 45 mm	Installed 90 mm	Installed 90 mm	Installed 135 mm	Installed 175 mm
Minimum bend radius	mm	Loaded 60 mm	Loaded 90 mm	Loaded 180mm	Loaded 180mm	Loaded 270mm	Loaded 350 mm

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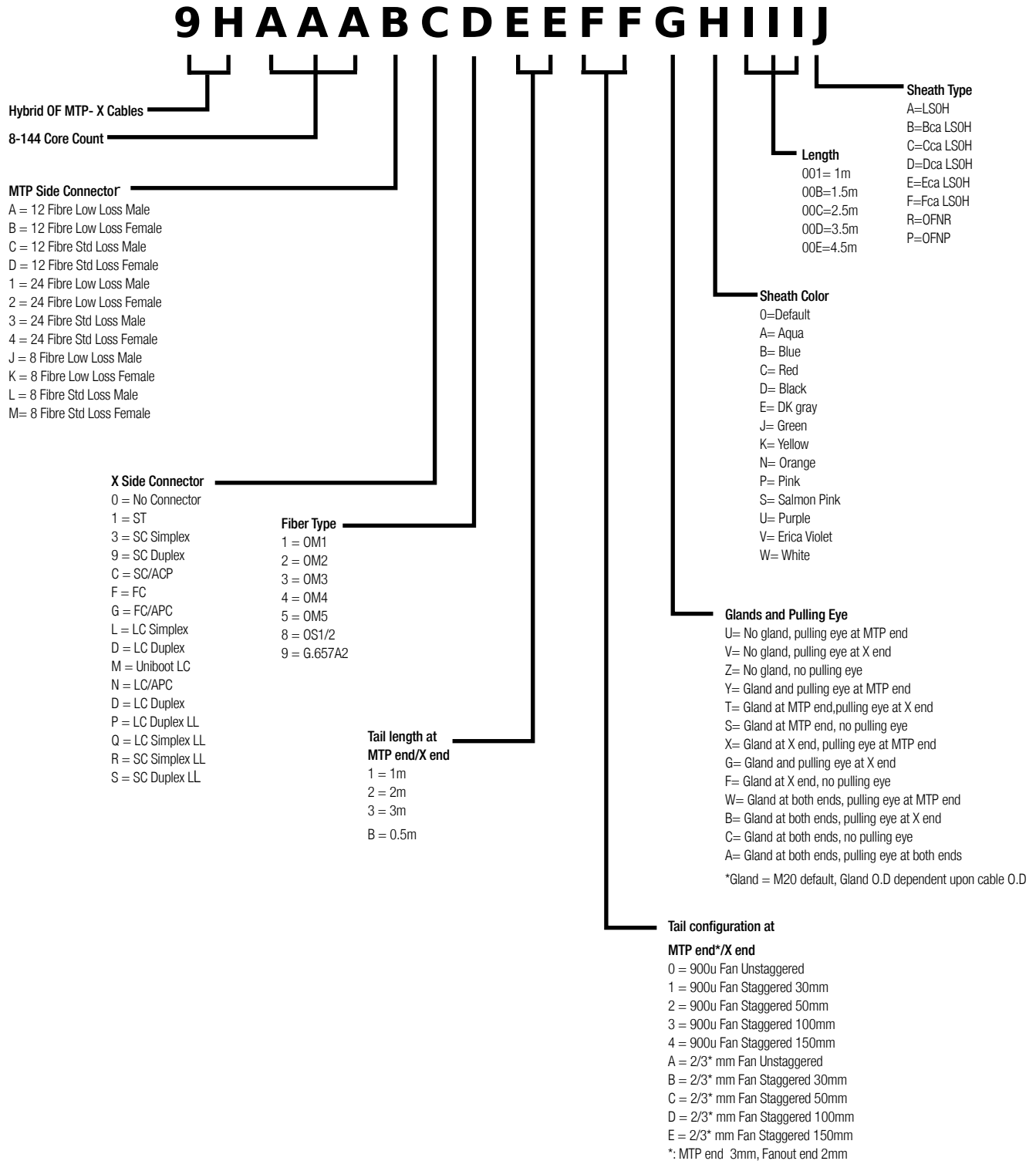
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Ordering Information

Part No. Matrix - Substitute the correct code number or letter to determine the assembly construction



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