tML® 24 - FO Trunk Cable 4x 24F MPO w. Pins/4x 24F MPO w. Pins 96E9/125µ OS2 LSHF Type A, Length: xx in m

\*\*tML® 24

tML® 24 is a patented, modular cabling system consisting of the three key components module, trunk cable and rack mount enclosure. The system components are 100 percent manufactured, pre-assembled and tested in Germany. They enable plug-and-play installation on site – especially in data centres, but also in industrial environments – within the shortest possible time. Heart of the system are the rear MPO/MTP® 24 fiber and Telco connectors, which can be used to connect at least six or twelve ports at a time. Depending on the module configuration, transfer rates of up to 400G are currently possible with SR4. The fibre optic and TP modules can be used together in a module carrier with a very high port density. The tde offers its tML® cabling system as a proven tML® standard system and in the highly innovative variants tML®Xtended and now tML® 32 for extreme scalability and very easy migration to higher transmission rates such as 40G, 100G, 200G and 400G.

\*\*tML® - tde Modular Link

tML® is a patented, modular cabling system consisting of the three key components module, trunk cable and rack mount enclosure. The system components are 100 percent manufactured, pre-assembled and tested in Germany. They enable plug-and-play installation on site – especially in data centres, but also in industrial environments – within the shortest possible time. Heart of the system are the rear MPO/MTP® and Telco connectors, which can be used to connect at least six or twelve ports at a time. Depending on the module configuration, transfer rates of up to 200G are currently possible with SR4. The fibre optic and TP modules can be used together in a module carrier with a very high port density. The tde offers its tML® cabling system as a proven tML® standard system and in the highly innovative variants tML® Xtended, tML® 24 System and now tML® 32 System for extreme scalability and very easy migration to higher transmission rates such as 40G, 100G, 200G and 400G.

\*\*tML® 24 - FO Trunk Cables MPO/MTP®

The tML® - FO trunk cable is intended for the connection of two tML®24 - FO Modules.

\*\*TECHNISCHE\_DATEN

The tML®- FO trunk cable is preterminated with MPO/MTP® connectors on both ends. The end faces of the connectors are optimized by means of Lasercleaving and machine polish. The MPO/MTP®plug has a defined fiber hieght of 1 - 3.5µ. The max. adjacent fiber height difference is 0.2µm and for all fibers 0.3µm. All system components (modules, trunk cables and patch cords) are co-ordinated for the reaching of the performance particularly. The fan-out unit is optimized for tML® - Cable Mounting Bracket for Fan-out Units. The module is marked with sequential serial number and article number.

\*\*\*FO Connectors

The end faces of the connectors are optimized by means of Lasercleaving and machine polish. The MPO/MTP® plug has a defined fiber height of 1 - 3.5µ. The max. adjacent fiber height difference is 0.2µm and for all fibers 0.3µm.

|  |  |
| --- | --- |
| Type | MPO/MTP® APC Male Push Pull Locking with Elite Pins (green) |
| Ferrule | 24 Fiber SM Elite® ferrule, PPS |
| Boot colour | Red |
| Temperature range | -40°C to +75°C |
| Manufacturer | tde/US Conec |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Fiber | Type | Wavelength | Insertion loss typ. | Insertion loss max. | Return loss min. |
| 9/125µ OS2 | MPO/MTP®APC | 1550 nm | ≤ 0.10 dB | 0.25 dB | 75 dB |

\*\*\*FO Fan-Out

|  |  |
| --- | --- |
| Fan-out length | 50 mm |
| Ø Fan-out | approx 16 - 19 mm |
| Ø Single unit | 3.0 mm |
| Single unit length | 78 ± 5 cm (not stepped) |

\*\*\*FO Cables

|  |  |
| --- | --- |
| Temperature range | Storage -25 to +70°C, IEC 60794-1-22 F1 |
|   | Pulling in -10 to +50°C |
|   | Operation -25 to +60°C |
| Tensile performance | IEC 60794-1-21 E1 |
| Crush resistance | IEC 60794-1-21 E3 |
| Impact | IEC 60794-1-21 E4 |
| Repeated bending | IEC 60794-1-21 E6 |
| Torsion | IEC 60794-1-21 E7 |
| Bend | IEC 60794-1-21 E11 |
| Water penetration | IEC 60794-1-22 F5 |

|  |  |
| --- | --- |
| Sheath colour | green, similar to RAL 6016 |
| Zero halogen, no corrosive gases | IEC 60754-1/-2, EN 60754-1/-2, VDE 0482-754-1/-2 |
| Flame propagation | IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2 |
| Flame spread | IEC 60332-3-24, EN 50266-2-4, VDE 0482-266-2-4 |
| Smoke density | IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2 |
| Reaction to fire (Euroclasses) | EN 13501-6: Eca |

|  |  |
| --- | --- |
| Cabletype | Universal U-DQ(ZN)BH for indoor and outdoor use |
|   | non metallic, dry interstices, rodent protection, flame retardant, in accordance with IEC 60332.1 and IEC 60332.3 C |
| Fibertype | Corning E9/125 G.652.D |
| No. of fibers | 96 |
| Loose tube | 8 |
| Sheath ø | 13.5 mm |
| Weight | 186 kg/km |
| Bending radius | 205 mm |
| Tensile load short term | 9.000 N |
| Tensile load continuous | 5.000 N |
| Crush resistance short term | 5.000 N |
| Crush resistance continuous | 3.000 N |
| Fire load | 808 kWh/km |
|   | 3200 MJ/km |

|  |  |
| --- | --- |
| Tolerances for lengths up to 40m | ± 100 cm |
| Tolerances for lengths up to 100m | ± 100 cm |
| Tolerances for lengths from 100m | ± 2% |