tML® - FO Fan-out Cable MPO/MTP® with Pins/6x SC Duplex 12E9/125µ LSOH, Length: xx

\*\*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® - FO Fan-out Cables

The tML® - FO Fan-out Cable MPO/MTP® is for the use with tML®- FO Trunk Cables.

\*\*TECHNISCHE\_DATEN

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 (fan-out cables or modules, trunk cables and patch cords) are co-ordinated for the reaching of the performance particularly. The fanout cable is marked with sequential serial number and article number.

|  |  |
| --- | --- |
| Cable | Round cable, loose tube, LSOH, yellow |
| Fan-out unit | Metal |
| Entry | 1 x MPO/MTP® Male Push Pull (green) |
| Exit | 6 x SC Duplex (blue) |
| Pin-out | Crossover (TIA/EIA-568-B.1 Methode C) |
| Tests | Interferometer, Insertion Loss, Return Loss and Visual Final Inspection; all measured values are electronically archived |
|   | QS-Managementsystem ISO 9001, ISO 14001 and TL 9000 |

\*\*\*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 | 12 Fiber SM Elite® ferrule, PPS |
| Boot colour | Black |
| Temperature range | -40°C bis +75°C |
| Manufacturer | tde/US Conec |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Fiber | Type | Wavelength | Insertion loss typ. | Insertion loss max. | Return loss min. |
| 9/125µ OS2 | MPO/MTP®APC | 1310 / 1550 nm | ≤ 0.10 dB | 0.20 dB | 75 dB |

\*\*\*FO Connectors

|  |  |
| --- | --- |
| Connector Type | SC UPC Duplex |
| Housing | Plastic, Blue |
| Ferrule | Zirconia Straight Split, Spring-loaded Axially |
| Ferrule Hole | 125.5 µ |
| Ferrule Concentricity | ≤ 0.6 µ |
| Mating Cycles | 500 |
| Operating Temperature | -40°C up to +75°C |
| Strain Relief to | 150 N |
| Manufacturer | tde |
| Simplex / Duplex Clip | with Duplex Clip |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Fiber | Type | Wavelength | Insertion loss typ. | Insertion loss max. | Return loss min. |
| 9/125µ OS2 | SC UPC | 1550 nm | < 0.10 dB | 0.25 dB | 55 dB |

\*\*\*FO Fan-Out

|  |  |
| --- | --- |
| Length Fan-Out | 40 mm |
| Max. Ø Fan-Out | 10 mm |
| Parallel connectors | 12 |

\*\*\*FO Cables

|  |  |
| --- | --- |
| Standards | EN 50173-5 |
|   | IEC 60794-2-20 |
|   | ISO/IEC 24764 |
| Flame resistance | IEC 60332-1-2 |
|   | IEC 60332-2-2 |
|   | IEC 60754-1 |
|   | IEC 60754-2 |
|   | IEC 61034 |

|  |  |
| --- | --- |
| Type | IVH12E09 |
| Loose tube | 12 coated fibers within PVC-core tube |
| Fiber type | SM-G652D, 9/125µ, Corning SMF-28e+, OS2 |
| Strength members | Aramid yarn |
| Outer jacket | LSZH (Halogen free, low smoke, flame retardant thermoplastic compound) |
| Jacket color | Yellow, RAL 1021 |
| Identification | "t d e – IVH12E09–MPO LSZH" and sequential meter marking + Lot number |

|  |  |
| --- | --- |
| Outer diameter cable | 3.0 ± 0.1 mm |
| Diameter PVC-core tube | 1.8 ± 0.1 mm |
| Wall thickness PVC-core tube | 0.35 mm – 0.40 mm |
| Max. tensile load | 300 N |
| Min. bending radius | 30 mm |
| Temperature range (storage, installation, operation) | -20°C to +70°C |