tBL® - TP Trunk Cable both ends preterminated 10GbE 6xRJ45 length: xx

\*\*tBL® - tde Basic Link (TP)

tBL® tde Basic Link (TP) is a complete system solution for structured cabling in Cat6A for transfer rates of up to 10GbE in real time. The tBL® - cabling link corresponds to a permanent link in accordance with ISO / IEC 11801 (EN 50173). The RJ45 modules are available in the form factors  Keystone (KS) and Data Center (DC). The compact design of the 6fold RJ45 DC module allows a high packing density of up to 48 RJ45 ports on 1U. The RJ45 module is connected to the tBL® - cable termination block by simply plugging. The slim cable termination block can be easily assembled on the cable by using the tBL® - crimp tool and is suitable for preterminated cables. The modular design of individual RJ45 modules are interchangeable at any time without termination. A cost effective alternative product is the RJ45 keystone module without cable termination block in the tool-less design.
The system solution is complemented by an extensive portfolio of carrier systems. These include design-capable data outlets, floor box frames, Consolidation points, DIN rail modules and patch panels in 1/2 and 1U.

\*\*TP Trunk Cables

The tBL® - TP Trunk Cable is intended for the installation in the tBL® module 0.5U (up to 4).

\*\*TECHNISCHE\_DATEN

tBL® - TP Trunk Cable is preterminated on both ends with modules 6x RJ45 10GbE. A full assembly results in 24x RJ45 ports on 0.5U.

|  |  |
| --- | --- |
| Cable | S/FTP Round Cable 24x2xAWG 26/1, CAT 7, Pet-Al foil around each pair, 3 layers of screened pairs (2+8+14), LSHF-FR |
|  | 13.2 mm |
|  | 55 mm |
|  | 110 mm |
| Flame resistance | LSHF-FR IEC 60332-3-24; IEC 60754-2; IEC 61034 |
| Standards | ISO/IEC 11801 2nd Edition; EN 50173-5; EN 50288-4-2 |
| Mounting | Snap-In |
| Tests | Link Performance Tests, electronic test on short-circuit and Visual Final Inspection; all measured values are electronically archived |

xx - stands for the cable length in meters (max. length is 60m)

\*\*\*TP RJ45 Modules

|  |  |
| --- | --- |
| System platforms | tML®/ tSML |
|  | 4x tBL® - 6fold Modules can be integrated in a tSML - TP Module. |
|  | 1x tBL® - 6fold Module can be integrated in a tML® - TP Module. |
| Equipping | 6x tBL® RJ45 DC Module Cat.6A |

\*\*\*TP RJ45 Modules

|  |  |
| --- | --- |
| Type | RJ45 Jack shielded |
| Connector standard | IEC 60603-7-5-1 |
| Installation dimension | 19.3 x 14.7 mm |
| Mating force | ≤30 N |
| Mating cycles (RJ45 side) | ≥750 |
| Mating cycles (opposite side) | ≥100 |
| Housing material | nickel-plated die-cast zinc |
| Insulation components material | PC aqua |
| Gold plating in contact area | 30 µ" |
| Contacting | AWG 27-22 |
| Cable diameter | 5-10 mm |

|  |  |
| --- | --- |
| Connection class | IP20 |
| Temperature range | -40°C to +70°C |

|  |  |
| --- | --- |
| Contact resistance | ≤20 mΩ |
| Insulation resistance between contacts | ≥500 MΩ |
| Dielectric withstanding voltage contact – contact | ≥1000 V DC/AC |
| Dielectric withstanding voltage contact – screen | ≥1500 V DC/AC |
| Current-carrying capacity at 50°C | 1.25 A |
| PoE+ per IEEE 802.3at | PoE+ |

|  |  |
| --- | --- |
| 10 GbE | supported |
| Cat.6A | ISO/IEC 11801 AM1 and AMD2, Link length: >1 m |

\*\*\*TP Termination Block

|  |  |
| --- | --- |
| Construction | plastic with insulation displacement connection |
| Gold plating termination block | 30 µ" |
| Color | transparent white |
| Application | Flex cable AWG 26 - AWG 27, alternative AWG 26 Solid Wire |
|  | Plug bears small flag-like installation guide with color codes for pin-out according to EIA/TIA 568 A and B. |

\*\*\*TP Cable

|  |  |
| --- | --- |
| Type | UC FUTURE COMPACT AWG26/1 Cat.7 S/FTP 24P |
| Conductor | Bare copper wire, diamter 0.4 mm (AWG26) |
| Insulation | Foam-skin PP, diameter 1.0 mm |
| Twisting | 2 insulated wires to the pair |
| Pair screening | Pet-Al foil around each pair |
| Stranding | 6 (5+1) bundles with 4 foiled pairs blue, orange, green, brown |
|  | Coloured tapes are around each bundle |
| Screen | Tinned copper braid 85% coverage |
| Sheath | LSHF-FR, diameter 13.9 mm |

Application
IEEE 802.3: 10Base-T; 100Base-T; 10GBase-T, ISDN; xDSL
IEEE 802.5 16 MB; ISDN; TPDDI; ATM155Mbit/s
The conductor diameter is smaller compared to the standard installation cables. This leads to an increased attenuation and therefore the
operating distance is reduced (60m instead of 90m installation cable in standard permanent link).
Standards
IEC 61156-6 work area cable
ISO/IEC 11801 2nd ed.
EN 50173-5
EN 50288-4-2
Flame resistance
PVC IEC 60332-1
LSHF-FR IEC 60332-3-24; IEC 60754-2; IEC 61034 ; EN 50399 Class Dca

|  |  |  |
| --- | --- | --- |
| Minimum bending radius | Without load | ≥ 55 mm |
|  | With load | ≥ 110 mm |
| Temperature range | During operation | -20°C up to +60°C |
|  | During installation | 10°C up to +40°C |

|  |  |  |
| --- | --- | --- |
| Loop resistance |  | ≤ 280 Ω/km |
| Resistance unbalance |  | ≤ 2% |
| Test voltage | core/core | 1000 VDC 1 min |
|  | core/screen | 1000 VDC 1 min |
| Capacitance | 800 Hz | Nom. 44 nF/km |
| Capacitance unbalance |  | ≤ 1600 pF/km |
| Impedance | 100 MHz | 100 Ω± 5 Ω |
| Nominal velocity of propagation |  | ca. 76% |
| Insulation resistance | 500 V | ≥ 2000 MΩkm |
| Transfer impedance | at 1 MHz | ≤ 5 mΩ /m |
|  | at 10 MHz | ≤ 5 mΩ /m |
|  | at 30 MHz | ≤ 10 mΩ /m |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| F MHZ | Atten- uation dB/10m | NEXT dB | PS- NEXT dB | ELFEXT dB/100m | PS- ELFEXT dB/100m | Return loss dB |
| 1.0 | 0.3 | 90 | 87 | 80 | 77 | 23 |
| 4.0 | 0.6 | 90 | 87 | 80 | 77 | 24 |
| 10.0 | 1.0 | 90 | 87 | 80 | 77 | 25 |
| 16.0 | 1.3 | 90 | 87 | 76 | 73 | 25 |
| 20.0 | 1.4 | 90 | 87 | 74 | 71 | 25 |
| 31.2 | 1.8 | 90 | 87 | 70 | 67 | 25 |
| 62.5 | 2.6 | 90 | 87 | 64 | 61 | 23 |
| 100.0 | 3.2 | 87 | 84 | 60 | 57 | 21 |
| 125.0 | 3.6 | 85 | 82 | 58 | 55 | 20 |
| 155.5 | 4.0 | 84 | 81 | 56 | 53 | 19 |
| 175.0 | 4.3 | 83 | 80 | 55 | 52 | 19 |
| 200.0 | 4.6 | 82 | 79 | 54 | 51 | 18 |
| 250.0 | 5.1 | 81 | 78 | 52 | 49 | 18 |
| 300.0 | 5.6 | 80 | 77 | 50 | 47 | 17 |
| 450.0 | 6.9 | 77 | 74 | 47 | 44 | 17 |
| 600.0 | 7.9 | 75 | 72 | 44 | 41 | 17 |

|  |  |
| --- | --- |
| Designation | J-02YS(ST)CH |
| Type | 24x2x0.4PiMF |
| Outer diameter | 13.9 mm |
| Fire load | 2.171 MJ/km |
| Fire load | 0.603 kWh/m |
| Reaction to Fire | Dca-s2, d2, a1 |
| Weight | 230 kg/km |
| Copper content | 115 kg/km |
| Tensile force | 500 N |