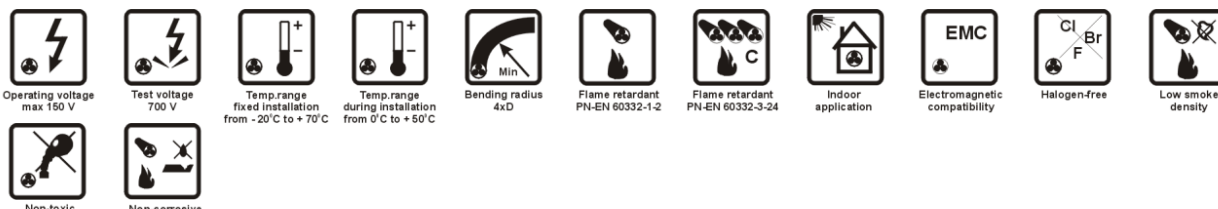


FTP-H kat.5e 4x2x0,5 mm - 155 MHz**LOCAL AREA NETWORK CABLES****APPLICATIONS**

FTP-H kat.5e 4x2x0,5 mm cable is intended for multimedia computer networks (data, sound and HDTV transmission), including structural wiring of buildings, applied in industrial and other dedicated networks sensitive to electromagnetic interferences.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

Halogen free material sheathed cable is applied in locations where, in case of fire, higher safety for human beings and property is required. The cable is flame retardant and its smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for fixed indoor installations.

CONSTRUCTION

- annealed copper single wire conductors of diameter 0.51 mm, 24 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- collective shield, incorporating aluminium-polyester tape and annealed tinned copper single drain wire of diameter 0.5 mm,
- cable sheath made of halogen free compound (HFFR), grey RAL 7035, other colours also available.

FTP-H kat.5e 4x2x0,5 mm - 155 MHz

CHARACTERISTICS

| | | | |
|--|------------------|--|---|
| Characteristic impedance | 100 ± 15 Ω | DC loop resistance at 20°C, maximum | 188 Ω/km |
| Mutual capacitance of any pair at 1 kHz, approximate | 50 nF/km | Resistance unbalance of any pair of conductors, max. | 2 % |
| Capacitance unbalance of any pair to ground at 1 kHz, max. | 1600 pF/km | Phase delay dispersion of symmetrical circuits | 45 ns/100 m |
| Insulation resistance, minimum | 5000 MΩ·km | Phase delay T | 534+36/√f ns/100 m |
| Operating voltage | 150 V | Corrosivity of emitted gases per | very low, halogen free PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2 |
| Voltage test | 700 V rms | pH appr. | 6.8 |
| Velocity of propagation | 65 % | conductivity appr. | 0.4 μS/mm |
| Return loss, minimum at f=4÷10 MHz | 20+5lg(f) dB | Smoke density | low smoke density PN-EN 61034-2, IEC 61034-2 |
| Return loss, minimum at f=10÷20 MHz | 25 dB | light transmittance, minimum | 70 % |
| Return loss, minimum at f=20÷155 MHz | 25-8.6lg(f/20)dB | Operating temperature range during operation | from - 20 to + 70°C |
| Minimum shielding attenuation at the frequency f=30 ÷ 1000 MHz | 50 dB | during installation | from 0 to + 50°C |
| Shielding impedance at 10 MHz, maximum | 100 mΩ/m | Minimum bending radius | 4 x cable diameter |
| | | Cable combustibility | flame retardant |
| | | Combustibility tests | PN-EN 60332-1-2, IEC 60332-1-2, PN-EN 60332-3-24, IEC 60332-3-24 (cat. C) |
| | | Reference standards | PN-EN 50288-2-1, IEC 61156-5 ISO/IEC 11801, TIA/EIA 568 A |

Attenuation loss, maximum

| f | MHz | 1 | 4 | 8 | 10 | 16 | 20 | 25 | 31.25 | 62.5 | 100 | 155 |
|---|----------|-----|-----|-----|-----|-----|-----|------|-------|------|-----|------|
| a | dB/100 m | 2.1 | 4.3 | 5.9 | 6.6 | 8.2 | 9.2 | 10.5 | 11.8 | 17.1 | 22 | 28.1 |

Near end cross-talk between pairs, minimum

| f | MHz | 1 | 4 | 8 | 10 | 16 | 20 | 25 | 31.25 | 62.5 | 100 | 155 |
|--------|-----|------|------|------|------|------|------|------|-------|------|------|------|
| NEXT | dB | 65.3 | 56.3 | 51.8 | 50.3 | 47.3 | 45.8 | 44.3 | 42.9 | 38.4 | 35.3 | 32.5 |
| PSNEXT | dB | 62.3 | 53.3 | 48.8 | 47.3 | 44.3 | 42.8 | 41.3 | 39.9 | 35.4 | 32.3 | 29.5 |
| ACR | dB | 68.3 | 57.2 | 51.0 | 48.8 | 44.0 | 41.5 | 38.9 | 36.2 | 26.4 | 18.3 | 4.4 |

Far end cross-talk between pairs, minimum

| f | MHz | 1 | 4 | 8 | 10 | 16 | 20 | 25 | 31.25 | 62.5 | 100 | 155 |
|----------|-----|------|------|------|------|------|------|------|-------|------|------|------|
| ELFEXT | dB | 63.8 | 51.7 | 45.7 | 43.8 | 39.7 | 37.7 | 35.8 | 33.9 | 27.8 | 23.8 | 19.9 |
| PSELFEXT | dB | 60.8 | 48.7 | 42.7 | 40.8 | 36.7 | 34.7 | 32.8 | 30.9 | 24.8 | 20.8 | 16.9 |

CE = the cable meets requirements of the low voltage directive 2014/35/EU

| Product No. | Number of pairs (x 2) x conductor diameter | Cable outer diameter (appr.) | Copper index | Cable weight (appr.) |
|-------------|--|------------------------------|--------------|----------------------|
| | mm | mm | kg/km | kg/km |
| 0503 002 | 4 x 2 x 0,5 | 6.1 | 17.6 | 46.2 |

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.