

**UNITRONIC® LAN 200 F/UTP Cat. 5e Y
4x2xAWG 24/1**
DB2170126
 valid from: 02.02.2012

Application

Data cable for transmission of digital and analog signals up to 200 MHz. The cable is designed for horizontal cablings sub-systems as connection between a floor distribution and the telecommunication outlets (TO's). According to TIA/EIA-568-B.2, ISO/IEC 11801 2nd edition, EN 50173, EN 50288-2-1, IEC 61156-5. For application in LANs like IEEE 802.3: 10Base-T, 100Base-T, 1000Base-T; FDDI; ISDN; ATM.

Design

| | |
|--------------------------|--|
| Conductor | bare copper AWG 24/1, massive |
| Insulation | Skin-Foam-Skin PE, ca. 1.04 mm core Ø |
| Core identification code | acc. to IEC 708-1 |
| Stranding | 4 pairs, stranded to bundle |
| Screening | plastic laminated aluminum foil with drain wire |
| Outer sheath | PVC, grey similar to RAL 7035, outer Ø: ca. 6.2 mm |

Electrical properties at 20° C

| | |
|--------------------------|---------------------------------|
| Resistance (loop) | max. 190 Ω/km, acc. to VDE 0812 |
| Insulation resistance | min. 5 GΩxkm |
| Mutual capacitance | nom. 50 nF/km |
| Characteristic impedance | 100 Ω ±5 Ω (bei 100 MHz) |
| Velocity of propagation | ca. 0.74 c |
| Signal propagation time | <480 ns/100m |
| Delay difference | <20 ns/100m |
| Screening attenuation | >40 dB (up to 100 MHz) |
| Test voltage | 700 V (AC) |

Transmission properties

| f [MHz] | Attenuation nom. [dB/100m] | NEXT nom. [dB] | ACR nom. [dB/100m] | ELFEXT nom. [dB/100m] | RL nom. [dB] |
|---------|-------------------------------|----------------|-----------------------|--------------------------|--------------|
| 1 | 1.9 | 80 | 78.1 | 68 | 24 |
| 4 | 3.7 | 75 | 71.3 | 56 | 30 |
| 10 | 5.6 | 70 | 64.4 | 46 | 34 |
| 16 | 7.2 | 68 | 60.8 | 43 | 35 |
| 20 | 7.9 | 65 | 57.1 | 41 | 34 |
| 31.25 | 10.3 | 60 | 49.7 | 36 | 33 |
| 62,5 | 14.4 | 56 | 41.6 | 32 | 31 |
| 100 | 18.2 | 50 | 31.8 | 26 | 28 |
| 155 | 19.9 | 45 | 25.1 | 24 | 26 |
| 200 | 24.2 | 42 | 17.8 | 22 | 24 |

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| | |
|-------------------------------|--|
| Minimum bending radius | during installation: 8 x cable Ø static: 4 x cable Ø |
| Permissible temperature range | during installation: 0° C up to +50° C static: -20° C up to +60° C |
| Flame propagation | flame retardant acc. to IEC 60332-1-2 |
| General requirements | Dangerous and forbidden substances acc. to RoHS directive (2002/95/EG) are not allowed to the manufacturing. |