UNITRONIC® LAN 200 SF/UTP Cat. 5e Y 4x2xAWG 24/1

DB2170128
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, 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 outer Ø
Core identification code	acc. to IEC 708-1
Stranding	4 pairs, stranded to bundle
Screening	plastic laminated aluminum foil on top: braid of copper wire, tinned wire ca. 0,10 mm
Outer sheath	PVC, grey similar to RAL 7035, outer Ø: ca. 6.5 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 (at 100 MHz)
Velocity of propagation	ca. 0.74 c
Signal propagation time	<480 ns/100m
Delay difference	<20 ns/100m
Screening attenuation	>60 dB (up to 1000 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	8.1	65	56.9	41	34
31.25	10.3	60	49.7	39	33
62,5	14.4	56	41.6	35	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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Mechanical and thermal properties

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.