

**UNITRONIC® LAN 250 U/UTP Cat. 6 LSZH
4x2xAWG 24/1**
DB2170171
 valid from: 20.09.2013

Application

Data cable for transmission of digital and analog signals up to 250 MHz. The cable is designed for horizontal cabling systems as connection between a floor distribution and the telecommunication outlets (TO's). According to TIA/EIA-568-B-2-1, ISO/IEC 11801 2nd edition, EN 50173, EN 50288-6-1, 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	PE, ca. 0.98 mm core Ø
Core identification code	acc. to IEC 708-1
Stranding	4 pairs, stranded to bundle with stranding cross
Outer sheath	halogen free compound (FRNC), orange similar to RAL 2003, outer Ø: ca. 6.3 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. 0.67 c
Signal propagation time	<510 ns/100m
Delay difference	<20 ns/100m
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	1.8	87	85.2	85	23
4	3.5	76	72.5	72	27
10	5.6	72	66.4	63	30
16	7.0	70	63.0	60	30
20	7.9	68	60.1	58	30
100	18.2	63	44.8	43	29
155	22.9	60	37.1	40	28
200	26.0	57	31.0	38	26
300	32.5	55	22.5	36	24
350	35.2	54	18.8	35	22

UNITRONIC® LAN 250 U/UTP Cat. 6 LSZH 4x2xAWG 24/1

DB2170171
valid from: 20.09.2013

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
Smoke gas test	acc. to EN 50267-2-1/EN 50267-2-2, IEC 60754-1/IEC 60754-2, IEC 61034/EN 61034
General requirements	Dangerous and forbidden substances acc. to RoHS directive (2002/95/EG) are not allowed to the manufacturing.