

**UNITRONIC® LAN 1000 S/FTP Cat. 7 LSZH  
4x2xAWG 23/1**DB2170614  
valid from: 19.04.2012**Application**

Data cable for transmission of digital and analog signals up to 1000 MHz. It is designed for horizontal cabling subsystems as connection between a floor distribution and the telecommunication outlets (TO's). Acc. to TIA/EIA-568, ISO/IEC 11801 2<sup>nd</sup> edition, EN 50173, EN 50288-4-1, IEC 61156-5. For application in LANs like IEEE 802.3: 10Base-T, 100Base-T, 1000Base-T, 10GBase-T; IEEE 802.3at: suitable for PoE; FDDI; ISDN; ATM; Cable Sharing.

**Design**

Conductor	bare copper AWG 23/1, massive
Insulation	Skin-Foam-Skin PE, ca. 1.37 mm outer Ø
Core identification code	acc. to IEC 708-1
Pair screening	plastic laminated aluminum foil
Stranding	4 pairs, stranded to bundle
Screening	braid of copper wires, tinned wire ca. 0,10 mm
Outer sheath	halogen free compound (FRNC), yellow, outer Ø: ca. 7.5 mm

**Electrical properties at 20° C**

Resistance (loop)	max. 150 Ω/km, acc. to VDE 0812
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	nom. 45 nF/km
Characteristic impedance	100 Ω ±5 Ω (at 100 MHz)
Velocity of propagation	ca. 0.79 c
Signal propagation time	<425 ns/100m
Delay difference	<8 ns/100m
Screening attenuation	>75 dB (up to 1000 MHz)
Test voltage	700 V (AC)

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**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	105	103	95	25
4	3.3	105	102	93	28
10	5.3	105	100	92	30
16	6.7	105	98	91	32
20	7.5	105	97	90	34
31,25	9.6	105	95	86	35
62,5	13.8	103	89	82	34
100	17.3	100	83	77	33
155	22.6	98	75	73	30
200	24.8	95	70	70	29
300	30.7	93	62	67	27
400	35.8	90	54	64	26
500	39.7	87	47	62	24
600	44.2	85	41	60	23
800	50.8	83	32	56	22
900	56.0	81	25	53	21
1000	59.0	80	21	50	20

**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. IEC 60332-3-24, 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.