


<b>2170198</b>	<b>DATA SHEET</b>	
<b>valid from: 10.02.2020</b>	<b>UNITRONIC® LAN 1000 S/FTP Cat.7 (L) PE 4x2x23/1 AWG</b>	

## Application

Data cable for transmission of digital and analog signals up to 1000 MHz for laying outdoors and directly in the ground (transverse watertight). Acc. to TIA/EIA-568, ISO/IEC 11801 2nd 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	pair 1: white(-blue)/blue, pair 2: white(-orange)/orange, pair 3: white(-green)/green, pair 4: white(-brown)/brown
Stranding	cores stranded to pair, 4 pairs stranded to bundle
Screen	pair screening: plastic laminated aluminium foil braid of copper wire, tinned wire ca. 0,10 mm
Outer sheath	welded aluminium tape, PE compound black, similar RAL 9005 outer Ø: ca. 9.8 mm

## Electrical properties at 20°C

Loop resistance	max. 15 Ω/100 m
Insulation resistance	min. 5 GΩ x km
Mutual capacitance	nom. 45 nF/km
Characteristic impedance	nom. 100 Ω acc. to IEC 61156-5
Velocity of propagation	0,79 c
Signal propagation time	≤ 425 ns/100 m
Delay	≤ 8 ns/100 m
Screening attenuation	> 75 dB
Peak operating voltage	100 V (not for power purposes)
Test voltage	Core/Core: 700 V Core/Screen: 700 V

## Mechanical and thermal properties

Minimum bending radius	during installation: 10 x cable Ø fixed: 4 x cable Ø
Temperature range	during installation: -15 °C up to +60 °C fixed: -40 °C up to +70 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2
Halogen free	acc. to VDE 0472-815
Corrosivity of gases	acc. to IEC 60754-2
Smoke density	acc. to IEC 61034 resp. EN 61034
UV resistance	UV-resistant acc. to ISO 4892
General requirements	These cables are conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances) and the LV-Directive 2014/35/EU (Low voltage Directive).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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