

**UNITRONIC® LAN STP/S Cat. 6<sub>A</sub> DUPLEX  
2x(4x2x23/1 AWG)**
**DB2170145**  
 valid from: 01.04.2016

## Application

Data cable for transmission of digital and analog signals up to 500 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.

## Design

Conductor	bare copper AWG 23/1, massive
Insulation	Skin-Foam-Skin PE, ca. 1.33 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
Outer sheath	PVC, grey similar to RAL 7035, outer Ø: ca. 2 x [7.1 mm]

## Electrical properties at 20° C

Resistance (loop)	max. 154 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	nom. 47 nF/km (at 800 Hz)
Velocity of propagation	ca. 0.75 c
Test voltage (1 minute, d.c.)	core/core: 1000 V core/screening: 1000 V

## Transmission properties

Transmission properties acc. to IEC 61156-5: abstract of the minimum requirements shown in the table:

f [MHz]	Attenuation [dB/100m]	NEXT [dB]	PS NEXT [dB]	EL FEXT [dB/100m]	PS EL FEXT [dB/100m]	RL
<b>1*</b>	(2,1)	(75,3)	(72,3)	(68,0)	(65,0)	(20,0)
<b>4</b>	3,8	66,3	63,3	56,0	53,0	23,0
<b>10</b>	5,9	60,3	57,3	48,0	45,0	25,0
<b>16</b>	7,5	57,2	54,2	43,9	40,9	25,0
<b>31,25</b>	10,5	52,9	49,9	38,1	35,1	23,6
<b>62,5</b>	15,0	48,4	45,4	32,1	29,1	21,5
<b>100</b>	19,1	45,3	42,3	28,0	25,0	20,1
<b>250</b>	31,1	39,3	36,3	20,0	17,0	17,3
<b>375</b>	38,7	36,7	33,7	16,5	13,5	17,3
<b>500</b>	45,3	34,8	31,8	14,0	11,0	17,3

\*only for information

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Minimum bending radius	8 x cable Ø
Permissible temperature range	during installation: -5° C up to +50° C static: -30° C up to +70° C
Flame propagation	IEC 60332-1-2
EU-directives	Dangerous and forbidden substances acc. to RoHS directive (2011/65/EU) are not allowed to the manufacturing.