



## VOKA-LAN XLAN 500 F/FTP AWG 23/1 FRNC Dca

Data cable

Category 6A and as class Ea up to 500 MHz

### APPLICATION

Data cable for analogue and digital signal transmission in the frequency range up to 500 MHz. It is designed for primary (campus), secondary (riser) and tertiary (horizontal) wiring. Suitable for applications up to class EA (500 MHz). Approved for usage acc. to euroclass classification Dca.

**Usage:** IEEE 802.3 : Ethernet 10Base-T ; Fast Ethernet 100Base-T ; Gigabit Ethernet 1000Base-T ; 10GBase-T  
IEEE 802.5 : ISDN ; FDDI ; ATM ; Cable sharing  
IEEE 802.3at : PoE / PoE+ suitable

### STANDARDS

EN 50288-5-1 ; EN 50288-10-1 ; EN 50173 ; EN 50174-2  
ISO/IEC 11801 2. edition ; IEC 61156-5 ;  
TIA/EIA-568-B.2-10

### CONSTRUCTION

**Conductor:** copper, solid, bare, AWG 23/1

**Core insulation:** SFS-PE

**Core diameter:** 1,35 ± 0,05 mm

**Core identification:** wh-bu, wh-or, wh-gn, wh-bn  
(IEC 708-1)

**Pair screen:** plastic-laminated aluminium foil

**Screening:** aluminium foil

**Sheath material:** halogen-free compound (FRNC)

**Sheath color:** orange, RAL 2003

### BEHAVIOR UNDER FIRE CONDITIONS

EN 60332-1-2 ; EN 60332-3-24 ; EN 50399 ; EN 50575  
EN 61034 ; EN 50267 ; IEC 60754-2 ; IEC 61034  
EN 13501-6 class Dca-s2 d2 a1

### CHEMICAL PROPERTIES

RoHS 2011/65/EU ; IEC 60811-404 ( IRM 902, 4h at 70°C )

### ELECTRICAL CHARACTERISTICS

loop resistance max.	max. 150 Ω / km
Insulation resistance min.	min. 5 GΩ x km at +20°C
Operating capacity	nom. 45 nF / km
Impedance	100 Ω ± 5 Ω
Test voltage	700 V / AC
Nominal voltage $U_0/U$	125 V
NVP	ca. 0,78 c
Signal delay	max. 425 ns/100m
Delay skew	< 10 ns/100m
Coupling attenuation	> 65 dB, Type 2
Coupling resistance	< 100 mΩ/m at 10MHz, Grade 2
Separation class	C

### THERMAL & MECHANICAL PROPERTIES

Temperature range stationary	-20°C to +60°C
Temperature range during inst.	0°C to +50°C
min. bending radius installed	4 x outer diameter
min. bending radius moved	8 x outer diameter
Maximum traction	100/200N
Fire load	0,160/0,320kWh/m

Dimension	Diameter appr.mm	Cable weight appr.kg/km	Copper index kg/km	Article number
AWG23/1	7.4	55	22	

Version: 11/2023

We reserve changes which serve technical progress • Price upon quantity-specific request

**Transmission characteristics**

The stated performance data are characteristic measurements.

<b>f</b> (MHz)	<b>Attenuation</b> (dB/100m)	<b>NEXT</b> (dB)	<b>ACR</b> (dB/100m)	<b>EL-FEXT</b> (dB/100m)	<b>RL</b> (dB)
	<b>NOM</b>	<b>NOM</b>	<b>NOM</b>	<b>NOM</b>	<b>NOM</b>
1	1,9	100	98	103	24
4	3,5	100	96	103	28
10	5,6	100	94	98	30
16	7	100	93	96	30
20	7,9	100	92	95	30
31,25	9,8	100	90	91	30
62,5	14,2	100	86	87	30
100	17,8	98	80	80	30
155	22,1	95	73	78	29
200	25,1	93	68	72	28
300	31	88	57	70	26
400	36,4	85	49	68	24
500	41,8	83	41	62	23