



## VOKA-ETH 1000 S/FTP 4PR AWG 23/1 PUR Fca

Data cable for industry and mechanical engineering  
Category 7 better than class F up to 600 MHz

### APPLICATION

Data cable for analogue and digital signal transmission in industrial environments in the frequency range up to 1000 MHz. Suitable for applications up to class F (600 MHz). Very robust due to the PUR sheath  
Approved for usage acc. to euroclass classification Fca.

**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 50288-4-1 ; EN 50173 ; EN 50174-2 ;  
ISO/IEC 11801 2. edition ; IEC 61156-5

### CONSTRUCTION

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

**Core insulation:** SFS-PE

**Core diameter:** 1,38 ± 0,05 mm

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

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

**Screening:** tinned copper wire braid

**Sheath material:** PUR FHF

**Sheath color:** green, RAL 6018

### BEHAVIOR UNDER FIRE CONDITIONS

EN 60332-1-2 ; IEC 60754-2 ; UL AWM 21586  
EN 13501-6 class Fca

### CHEMICAL PROPERTIES

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

### 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 <sub>0</sub> /U	125 V
NVP	ca. 0,79 c
Signal delay	max. 425 ns/100m
Delay skew	< 8 ns/100m
Coupling attenuation	> 90 dB, Type 1
Coupling resistance	< 5 mΩ/m at 10MHz, Grade 1
Separation class	D

### THERMAL & MECHANICAL PROPERTIES

Temperature range stationary	-30°C to +80°C
Temperature range during inst.	-10°C to +50°C
min. bending radius installed	4 x outer diameter
min. bending radius moved	8 x outer diameter
Maximum traction	130N

Dimension	Diameter appr.mm	Cable weight appr.kg/km	Copper index kg/km	Article number
AWG23/1	7.9	68	34	

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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	1,7	100	98	95	25
4	3,2	100	97	93	28
10	5,2	100	95	92	30
16	6,5	100	93	91	30
20	7,3	100	93	90	30
31,25	9,4	100	91	86	30
62,5	13,6	100	86	82	30
100	17	100	83	77	30
155	22,2	98	76	73	28
200	24,3	95	71	70	26
300	30,2	93	63	67	25
500	39,1	87	48	62	23
600	43,5	85	41	60	23
800	50	80	30	56	22
900	55,2	78	23	53	21
1000	58,1	75	17	50	20

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