

# VOKA-LAN Outdoor 1000

## S/FTP 4PR AWG 23/1 PE

**Outdoor installation • 1000 MHz**  
better than Category 7



### APPLICATION

Data cable for analogue and digital signal transmission in the frequency range up to 1000 MHz. It is designed for primary (campus), secondary (riser) and tertiary (horizontal) wiring, specially for outdoor use.

**Use:** IEEE 802.3: 10/100/1000/10GBase-T; IEEE 802.5: FDDI; broadband, video, ISDN, ATM, Multimedia, PoE

### STANDARDS

EN 50288-4-1; IEC 61156-5; EN 50173-1; ISO/IEC 11801 2nd edition  
RoHS 2002/95/EC

### CONSTRUCTION

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

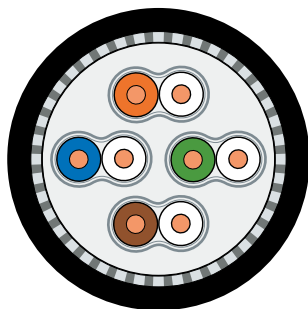
**Core insulation:** SFS-PE

**Core identification:** wh-bu, wh-or, wh-gn, wh-bn

**Core stranding:** cores twisted to layers

**Screen:** pair screen (PIMF) (plastic-laminated aluminium foil); drain wire optional; tinned copper wire braid

**Sheath:** PE; imprint upon request



### ELECTRICAL CHARACTERISTICS

|                                    |              |
|------------------------------------|--------------|
| (Conductor) loop resistance max.   | 14,5 Ω/100 m |
| Insulation resistance mind.        | 5 GΩ x km    |
| Char. impedance 1 – 100 MHz        | 100 ±15 Ω    |
| Char. impedance 100 – 250 MHz      | 100 ±22 Ω    |
| Char. impedance 250 – 1000 MHz     | 100 ±25 Ω    |
| Transfer impedance max. (10 MHz)   | 10 mΩ/m      |
| Mutual capacitance nom.            | 45 nF/km     |
| Relative propagation velocity ca.  | 0,78 c       |
| Screen attenuation ≤ 1000 MHz min. | 85 dB        |
| Test voltage                       | 700 V-AC     |

### THERMAL & MECHANICAL PROPERTIES

|                                          |                |
|------------------------------------------|----------------|
| Temperature range during installation    | -20°C to +50°C |
| Temperature range stationary             | bis +70°C      |
| Min. bending radius under tensile load   | 10 x diameter  |
| Min. bending radius without tensile load | 5 x diameter   |
| Maximum traction                         | 180 N          |

| dimension       | sheath thickness<br>appr. mm | diameter<br>appr. mm | cable weight<br>ca. kg/km | copper index<br>kg/km | calorific potential<br>MJ/km |
|-----------------|------------------------------|----------------------|---------------------------|-----------------------|------------------------------|
| 4 x 2 x AWG23/1 | 1,5                          | 9,5                  | 85                        | 34                    |                              |

We reserve changes which serve technical progress • Copper base 100,00 €/ 100,00 kg  
Price upon quantity-specific request • Also available as duplex version

### Transmission characteristics

The stated performance data are characteristic measurements.

| f<br>(MHz) | Attenuation<br>(dB/100m) | NEXT<br>(dB) | ACR<br>(dB/100m) | EL-FEXT<br>(dB/100m) | RL<br>(dB) |
|------------|--------------------------|--------------|------------------|----------------------|------------|
|            | NOM                      | NOM          | NOM              | NOM                  | NOM        |
| 1          | 1,7                      | 105          | 103              | 95                   | 25         |
| 4          | 3,2                      | 105          | 102              | 93                   | 28         |
| 10         | 5,2                      | 105          | 100              | 92                   | 30         |
| 16         | 6,5                      | 105          | 98               | 91                   | 32         |
| 20         | 7,3                      | 105          | 98               | 90                   | 34         |
| 31,25      | 9,4                      | 105          | 96               | 86                   | 35         |
| 62,5       | 13,6                     | 103          | 89               | 82                   | 34         |
| 100        | 17,0                     | 100          | 83               | 77                   | 33         |
| 155        | 22,2                     | 98           | 76               | 73                   | 30         |
| 200        | 24,3                     | 95           | 71               | 70                   | 29         |
| 300        | 30,2                     | 93           | 73               | 67                   | 27         |
| 400        | 35,2                     | 90           | 55               | 64                   | 26         |
| 500        | 39,1                     | 87           | 48               | 62                   | 24         |
| 600        | 43,5                     | 85           | 41               | 60                   | 23         |
| 800        | 50,0                     | 83           | 33               | 56                   | 22         |
| 900        | 55,2                     | 81           | 26               | 53                   | 21         |
| 1000       | 58,1                     | 80           | 22               | 50                   | 20         |

### ACR Powersum (dB/100m)

