

## Industrial Ethernet SF/UTP Cat 5e - Profinet Type A FC LSZH UV Cca

Industrial Ethernet, Cat 5e  
+75 °C service temperature, collective screen, fire retardant, oil and UV resistant  
EN 50288-2-1, EN 50173, ISO/IEC 11801 (2nd edition), IEC 61156-5, PROFInet Cabling Guide and EN 50575

### Application

Zero halogen industrial ethernet (PROFINET Type A) cable with improved fire characteristics for universal use. As data cable for the transmission of digital and analog signals for PROFINET systems, Industrial Ethernet & ICT network applications (10/100 Mbps). Zero halogen cables are suitable for installation in environments where smoke and toxic fumes may threaten life or valuable equipment. For fixed installation in harsh industrial environments for wiring of machines, tools, devices, appliances and control cabinets. UV-resistant for installation indoors and outdoors.  
Fast Connect (FC) cable design for easy installation together with the appropriate tools and connectors.

### Construction



- |                      |   |
|----------------------|---|
| 1. Conductor:        | Copper conductor, bare, solid                   |
| 2. Insulation:       | PE  |
| Core identification: | White, yellow, blue, orange                     |
| 3. Core covering:    | Filler  |
| 4. Screen:           | Laminated Alu/PETP tape                         |
| 5. Braid:            | Tinned copper wire braid (80% optical coverage) |
| 6. Outer sheath:     | Zero halogen, green similar to RAL 6018         |

### Technical information

Operating voltage max.		125 V
Test voltage		700 V
Operating temperature	fixed installation	-25 °C to 75 °C
	during installation	-5 °C to 50 °C
Min. bending radius mm	fixed installation	5 x outer diameter in mm
	during installation	10 x outer diameter in mm
Max. tensile strength		150 N
<b>Safety parameters</b>		
Reaction to fire		EN 50399 C <sub>ca</sub> – s1a, d1, a1
Flame spread	single cable	IEC 60332-3-1
	bunched cables	IEC 60332-3-24
Zero halogen		IEC 60754-1 /-2
Smoke density		IEC 61034-1/ -2
<b>Additional parameters</b>		
UV resistance		DIN EN ISO 4892-2 – EN 50289-4-17 (720 h)
Oil resistance		IEC 60811-2-1 (IRM 902, 4h at 70°C)
UL Style		AWM 21279 80° 600V
RoHS 2011/65/EU		

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### Electrical properties at 20 °C

Characteristic impedance	max.	100 $\Omega \pm 5$
Loop resistance	max.	115 $\Omega/\text{km}$
Insulation resistance	min.	5 G $\Omega/\text{km} \cdot \text{km}$
Operating capacity	nom.	50 nF / km
Screen attenuation	min.	70 dB
Coupling attenuation	min.	80 dB
Nominal Velocity of Propagation	max.	67 %

f MHz	Attenuation dB/km	NEXT dB	ACR db/100m	EL-FEXT db/100m	RL dB
1	1,9	75	73,1	69	
4	3,7	65	61,3	57	25,0
10	5,8	60	54,2	50	30,0
16	7,6	54	46,4	46	30,0
20	8,6	52	41,4	44	30,0
31,25	11,0	49	38,0	40	28,5
62,5	16,3	47	30,7	34	27,0
100	20,9	45	24,1	30	24,0

N° of cores and cross section mm <sup>2</sup>	Outer diameter approx. mm	Weight approx. kg/km
2 x 2 x 0,64mm (AWG 22/1)	6,5	67

La version française de cette fiche technique est disponible sur demande.  
De technische gegevens zijn op aanvraag in het Nederlands beschikbaar.