# CABLE SFTP CAT7A+ 1000Mhz 10G LSOH 4 PARES NARANJA LSZH

# 91888-91889-91890



## CAT 7a network cable, S/FTP (PiMF)

CU, AWG 23/1 (solid), LSZH
suitable for applications: up to Class F(A) 1000 MHz Power over Ethernet (PoE/PoE+) analogue/digital signals, video, Voice over IP(VoIP) IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T Int. standard ISO/IEC 11801 2nd ed., IEC 61156-5 Euro. standard: EN 50173-1 EN 50288-9-1 FRNC/LSZH = Flame Reterdant Non Corrosive /Low Smoke Zero Halogen

- non-terminated data-/installationcable for proccessing and installation with LSA connection technology for indoor using
- suitable for applications: up to Class F(A) 1000 MHz
- double shielded twisted-pair LAN cable
- pairs screening: PIMF (pairs in metal foil) + outer shield: braiding
- Power over Ethernet (PoE/PoE+)

### Technical Data

- **Cable**

- **Cable length**100 m
- **Material cable sheath**LSZH
- **Specification**CAT 7a
- **Cable type**round cable
- **Meter scaling**yes
- **Inner conductor material**CU (copper)
- **AWG**23/1 (solid)
- **Number of shieldings**2 x
- **Type 1, shielding**foil (alu) PiMF

- **Type 2, shielding**braid (copper)
- **Cable sheath diameter**7.5 mm
- **LSZH compliant**yes
- **Shielding class**S/FTP (PiMF)

- **Signal transmission**

- **Impedance**100 Ω
- **max. bandwidth**1000 MHz

- **General**

- **Color:** orange

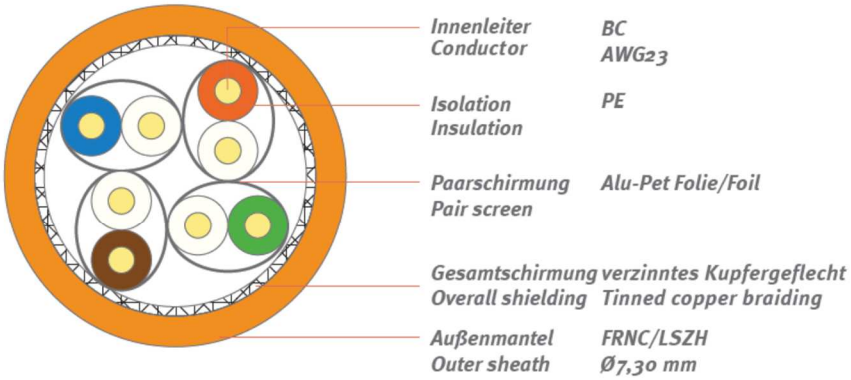


## PRODUKTINFORMATIONEN
## PRODUCT INFORMATION

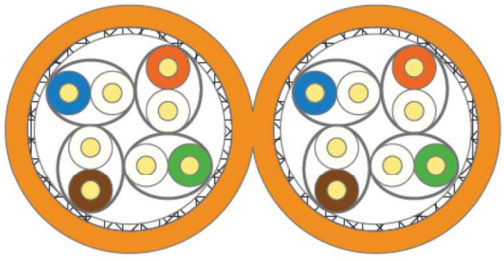
*Types/Typen*
*CAT 7A SOLID S/FTP LSZH*
*CAT 7A SOLID S/FTP LSZH DUPLEX*

### *Kabelkonstruktion*
### *Cable constructions*

*CAT 7A SOLID S/FTP LSZH*
*Simplex*




*CAT 7A SOLID S/FTP LSZH DUPLEX*
*Duplex*



### *Funktionen und Anwendungen*
### *Features and applications*

### *Längen*
### *Lengths*

## Funktionen und Anwendungen
## Features and applications

*Passend für Anwendungen bis Klasse $F_A$.*
*Suitable for applications up to Class $F_A$*
*(1000 MHz), Power over Ethernet (PoE)/PoE+,*
*VoIP (Voice over IP), 10 GbE - IEEE 802.3.*

## Normen
## Standards

*ISO/IEC 11801 2nd ed., IEC 61156-5*
*EN 50173-1, EN 50288-9-1*

## Flammenfestigkeit
## Flame resistance

*IEC 60332-1-2*
*IEC 60754-1/2*
*IEC 61034-1/2*

CE
RoHS

*Low Voltage Directive 2006/95/EC*
*EC Directive 2011/65/EU*

# CAT 7A SOLID S/FTP LSZH

**Datenkabel, Cat $7_A$**
**Data cable , Category $7_A$**

**1000 MHz**

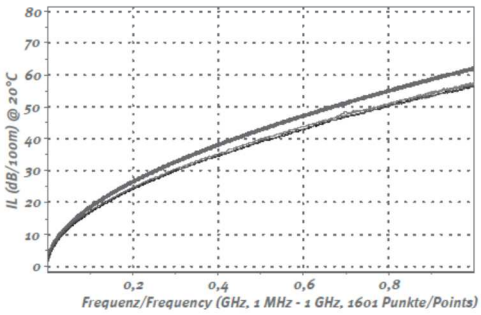
**4x2xAWG23**

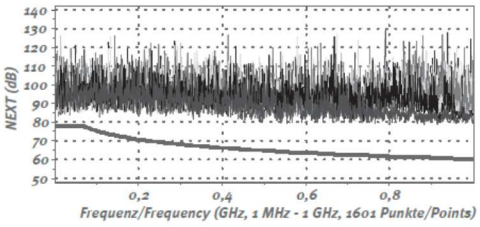
## Elektrische Charakteristik (HF) bei 20 °C
## Electrical characteristics (HF) at 20 °C

| Frequenz<br>Frequency<br>[MHz] | Dämpfung<br>Attenuation<br>[dB/100m] | | NEXT<br>[dB] | | PS-NEXT<br>[dB] | | ACR<br>[dB/100m] | | PS-ACR<br>[dB/100m] | | ACR-F<br>[dB/100m] | | PS-ACR-F<br>[dB/100m] | | RL<br>[dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | typ. | max. | typ. | min. | typ. | min. | typ. | min. | typ. | min. | typ. | min. | typ. | min. | typ. | min. |
| 1 | 1,9 | 2,1 | 104 | 78 | 101 | 75 | 102 | 75,9 | 99 | 72,9 | 108 | 78 | 105 | 75 | 26 | 20 |
| 4 | 3,5 | 3,7 | 104 | 78 | 101 | 75 | 100 | 74,3 | 97 | 71,3 | 107 | 78 | 104 | 75 | 30 | 23 |
| 10 | 5,4 | 5,8 | 104 | 78 | 101 | 75 | 99 | 72,2 | 96 | 69,2 | 104 | 75,3 | 101 | 72,3 | 33 | 25 |
| 100 | 17,4 | 18,5 | 104 | 75,4 | 101 | 72,4 | 87 | 56,9 | 84 | 53,9 | 92 | 55,3 | 89 | 52,3 | 33 | 20,1 |
| 200 | 24,9 | 26,5 | 104 | 70,9 | 101 | 67,9 | 79 | 44,4 | 76 | 41,4 | 84 | 49,3 | 81 | 46,3 | 32 | 18 |
| 250 | 27,8 | 29,7 | 104 | 69,4 | 101 | 66,4 | 76 | 39,7 | 73 | 36,7 | 79 | 47,3 | 76 | 44,3 | 30 | 17,3 |
| 500 | 40,1 | 42,8 | 99 | 64,9 | 96 | 61,9 | 59 | 22,2 | 56 | 19,2 | 67 | 41,3 | 64 | 38,3 | 28 | 17,3 |
| 600 | 43,8 | 47,1 | 93 | 63,7 | 90 | 60,7 | 50 | 16,6 | 47 | 13,6 | 60 | 39,7 | 57 | 36,7 | 25 | 17,3 |
| 862 | 54,0 | 57,2 | 86 | 61,4 | 83 | 58,4 | 32 | 4,2 | 29 | 1,2 | 53 | 36,6 | 50 | 33,6 | 23 | 15,7 |
| 1000 | 58,0 | 61,9 | 84 | 60,4 | 81 | 57,4 | 26 | -1,5 | 23 | -4,5 | 43 | 35,3 | 40 | 32,3 | 20 | 15,1 |
| 1200 | 64 | - | 82 | - | 79 | - | 18 | - | 15 | - | 38 | - | 35 | - | 19 | - |

## Elektrische Charakteristik (LF) bei 20 °C
## Electrical characteristics (LF) at 20 °C

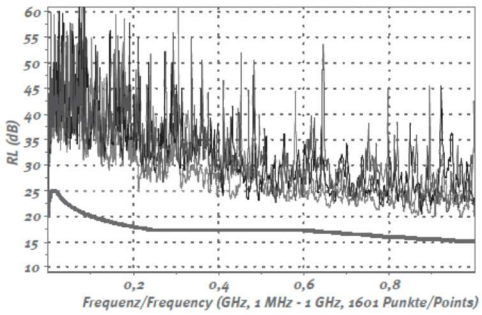
| | | |
|---|---|---|
| • DC Widerstand/resistance | max. | 68 Ω/km |
| • Ungenauigkeit/Inaccuracy | max. | 2 % |
| • Isolationswiderstand/Insulation resistance | min. | 2 G Ω x km |
| • Betriebskapazität/Mutual capacitance | nom. | 42 pF/m |
| • Kapazität/Capacity | max. | 1500 pF/km |
| • Wellenwiderstand/Characteristic impedance | @ 100 MHz | 100 ± 5 Ω |
| • Übertragungswiderstand/Transfer impedance | @ 1/10/30 MHz | 5/5/10 mΩ/m (Grade 1) |
| • Kopplungsdämpfung/Coupling attenuation | min. | 85 dB (Type 1) |
| • Ausbreitungsgeschwindigkeit/Velocity of propagation | approx. | 79 % |
| • Laufzeit/Propagation delay | nom. | 420 ns/100 m |
| • Verzögerung/Skew @ 100 MHz | nom. | 5 ns/100 m |
| • Testspannung/Testing voltage | | 1000 V |
| • Betriebsspannung/Operating voltage | max. | 125 V |




## Mechanische Charakteristik
## Mechanical characteristics

| | | |
|---|---|---|
| • Biegeradius/Bending radius | | |
| bei Installation/during installation | min. | 8 x D |
| installiert/as installed | min. | 4 x D |
| • Reißfestigkeit/Tensile strength | max. | 110 N (Sx), 220 N (Dx) |
| • Querdruckfestigkeit/Crush resistance | min. | 1000 N/10 cm |
| • Schlagfestigkeit/Impact strength | min. | 10 impacts |
| • Temperaturbereich/Temperature range | | |
| bei Installation/during installation | | 0 °C ~ +50 °C |
| in Betrieb/in operation | | -20 °C ~ +60 °C |




| Beschreibung<br>Description | Maße<br>Dimensions | Außendurchmesser<br>Outer dia.<br>[mm] | Kupferanteil<br>Cu content<br>[kg/km] | Kabelgewicht<br>Cable weight<br>[kg/km] | Brandlast<br>Fire load<br>[MJ/m] | [kWh/m] | Mantel - Farbe<br>Sheath - Color | | Verpackung<br>Packing<br>[m] |
|---|---|---|---|---|---|---|---|---|---|
| CAT 7A SOLID S/FTP LSZH | 4 x 2 x AWG 23 | 7,50 | 32 | 63 | 0,64 | 0,18 | FRNC/LSZH | (RAL 2003) | 500/1000 |
| CAT 7A SOLID S/FTP LSZH DUPLEX | 2 x (4 x 2 x AWG 23) | 7,50 x 15,8 | 64 | 126 | 1,28 | 0,36 | FRNC/LSZH | (RAL 2003) | 500 |