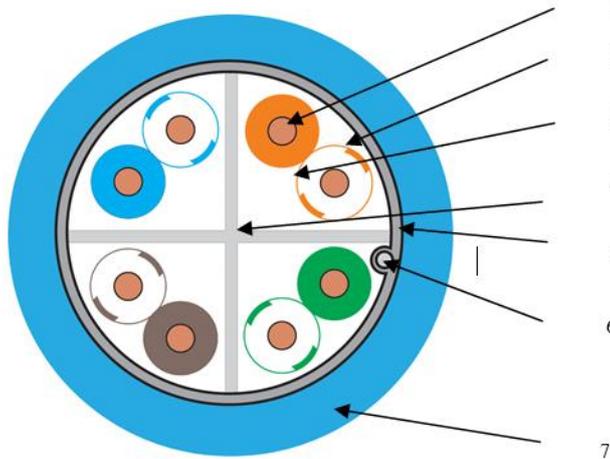


Type:	Installation cable	20.01.2024
	F/UTP Cat.6 4PR LSZH 500 MHz	REV: 2
Ref:	XQ100.116 XQ100.117	F

## Installation cable Cat.6 F/UTP 4PR LSZH CPR Class D<sub>CA</sub> 500 MHz



### CONSTRUCTION:

- 1 – Conductor**  
Material: solid bare annealed copper.  
Nominal diameter: 23 AWG.
- 2 – Insulation**  
Material: polyolefin.  
Nominal diameter: 1.1 mm.
- 3 – stranded wires**  
Pair: 2, twisted insulated conductors.  
Number of pairs: 4, all twisted together.
- 4 – Cross separator**
- 5 – Screen:** aluminum / polyester tape.
- 6 – Drain wire:** solid tinned annealed copper
- 7 – Outer sheath**  
Material: LSZH.  
Color: blue (RAL 5015)

### STANDARDS

ISO/IEC 11801  
EN 50173  
IEC 61156-5  
EN 50288-2-1  
IEC 60332-1-2  
IEC 60754-1/2  
IEC 61034-1/2

### SUPPORTED APPLICATIONS

10BASE-T (IEEE 802.3)  
100BASE-T (IEEE 802.3)  
1000BASE-T (Gigabit Ethernet)  
100BASE-VG-AnyLAN  
100 Mbps TP-PMD (ANSI X3T9.5)  
4/16 Mbps TOKEN RING (IEEE 802.5)  
PoE/PoE+

### ORDERING

**XQ100.116** – Reel 500m  
**XQ100.117** – Reel 1000m

### MECHANICAL CHARACTERISTICS

Min. bending radius in operation	25	mm
Min bending radius of terminated cable by FibrainDATA HD modules (XE200/XE210, XQ200/XQ210, XR200/210)	10	mm
Min. bending radius during installation	45	mm
Max. pulling tension	80	N
Nominal weight	45.0	kg/km
Nom. outer diameter	7.2	mm
Nom. wire diameter	23	AWG

### ELECTRICAL CHARACTERISTICS @ 20°C

Max. DC Resistance:	95.0	Ω/km
Nom. Mutual Capacity @1kHz	56	nF/km
NVP:	70	%
Mean input Impedance:	100 ± 5 @ 100MHz	Ω
Propagation delay @10MHz:	max. 518	ns
Delay Skew:	max. 40	ns/100m
Segregation class	c	-
Max.operating voltage (V dc):	80	V DC
Max. DC intensity per conductor	3.3	A/mm <sup>2</sup>

This document and the statements contained in it, are not intended for customers within the meaning of Civil Code. The information submitted in this document is to our knowledge and belief true at the time of issue, however, we do not assume any liability whatsoever for its accuracy, and completeness. This document is for informational purposes on an "as is" basis only, and Fibrain reserves the right to change its contents at any time without prior notice. The specification cannot in any case be considered an offer within the meaning of the Civil Code and is not contractually valid unless specifically authorized by Fibrain. Before using this product, its buyer and/or user has to make sure that it is suitable for the intended use. All liability issues related to this product are subjected to the seller's separate Terms of Sale or the terms and conditions agreed with the Fibrain representative or distributor.

Type:	Installation cable	20.01.2024
	F/UTP Cat.6 4PR LSZH 500 MHz	REV: 2
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### TEMPERATURE CHARACTERISTICS

Storage Temperature	-20 to +70	°C
Operating Temperature	-20 to +70	°C
During installation	-5° to +50	°C

### ENVIRONMENTAL CHARACTERISTICS

Jacket material	LSZH
Flammability	Acc. to IEC 60332-1-2; IEC 60754-1/2; IEC 61034-1/2
Calorific value	EN50575; <b>Dca-s2,d2,a1</b> 0.868 MJ/m

### TRANSMISSION CHARACTERISTICS

Frequency	Attenuation	NEXT	PS-NEXT	ELFEXT ACR-F	PS-ELFEXT PSACR-F	ACR	PS-ACR	RL
MHz	dB/100m (max.)	dB (min.)	dB (min.)	dB/100m (min.)	dB/100m (min.)	dB/100m (min.)	dB/100m (min.)	dB/100m (min.)
1*	2.1	75.3	72.3	68.0	65.0	73.2	70.2	20.0
4	3.8	66.3	63.3	58.0	55.0	62.5	59.5	23.0
8	5.2	61.8	58.8	51.9	48.9	56.5	53.5	24.5
10	5.9	60.3	57.3	50.0	47.0	54.4	51.4	25.0
16	7.4	57.2	54.2	45.9	42.9	49.9	46.9	25.0
25	9.2	54.3	51.3	42.0	39.0	45.0	42.0	24.3
31.25	10.3	52.9	49.9	40.1	37.1	42.6	39.6	23.6
62.5	14.5	48.4	45.4	34.1	31.1	33.8	30.8	21.5
100	18.4	45.3	42.3	30.0	27.0	26.9	23.9	20.1
155	22.9	42.4	39.4	26.2	23.2	19.5	16.5	18.8
200	26.1	40.8	37.8	24.0	21.0	14.7	11.7	18.0
250	29.2	39.3	36.3	22.0	19.0	10.1	7.1	17.3
300*	32.0	38.1	35.1	20.5	17.5	6.1	3.1	17.3
500*	34.7	37.1	34.1	19.1	16.1	2.5	1.0	17.3

\* For information only

### CABLE MARKING

FIBRAIN DATA CABLE CAT6 F/UTP 4PR 23 AWG 500MHZ NVP 70% LSZH CPR CLASS Dca ISO/IEC11801 EN50173 ANSI/TIA/568.2-D JJJJ XQ100.11P OFRRRRRRR . XXXXX M

Where:

**JJJJ:** production year  
**P:** 6 for 500m reel, 7 for 1000 reel  
**OFRRRRRR:** manufacturer order  
**XXXXX:** length

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