



DATA TRANSMISSION CABLES

F/UTP cat. 5e
4 x 2 x 24 AWG

ISO/IEC 11801, EN 50173-1, EIA/TIA 568B

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REVISION: 1

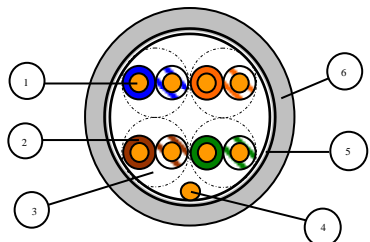
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CABLE DESCRIPTION – APPLICATIONS

Installation cables for structured horizontal cabling. These cables are ideal for LAN data transmission in all Ethernet (IEEE 802.3) applications up to 1000 Base-T.

CABLE DESIGN



Note: drawing is not to scale

1. **Conductor:** 100% copper solid wire.
2. **Insulation:** PE compound.
3. **Twisting:** 2 cores twisted in a pair.
4. **Earth wire:** tinned copper wire
5. **Screen:** overlapped laminated aluminium foil –(AL-PET)
6. **Outer jacket:** PVC/FR LSZH compound.

Cable type	Dimension	Sheath	Standard Sheath Colour ¹	Outer diameter ² (mm)	Cable weight ² (km/km)
Indoor	4 x 2 x 24 AWG	PVC	Grey	6.3	43
Indoor	4 x 2 x 24 AWG	FR LSZH	Grey	6.3	43

¹: available also in other colours if requested.

²: typical values.

OPERATING CONDITIONS

BASIC ELECTRICAL CHARACTERISTICS (20°C)

Temperature range	Static	Dynamic	DC Conductor Resistance	
Indoor	-20°C to +60°C	0°C to +50°C	Insulation Resistance	≤ 88 Ohm/km
			Mutual Capacitance	≥ 5000 MΩ·Km / 500 VDC
			Capacitance pair to ground	50±3 nF/km / 1.0 KHz
			Characteristic Impedance	≤ 500 pF/km / 1.0 KHz
			Velocity of Propagation	100 ± 15% Ω / 1-100 MHz; 100 ± 22% Ω / 1-200 MHz;
			Signal propagation time	ca 0.74c
			Delay difference	<480ns/100m
			Coupling Attenuation	<20ns/100m
			Test voltage	> 40dB (up to 100MHz)
				700V(AC)

³: can comply with IEC 60332-3-24 if special FR LSZH compound is requested.

BASIC TRANSMISSION CHARACTERISTICS (20°C) (typical values)

Frequency MHz	Attenuation dB/100m		NEXT dB		ELFEXT dB		Return loss dB	
	Cat 5e max.	CABLEL	Cat 5e min.	CABLEL	Cat 5e min.	CABLEL	Cat 5e min.	CABLEL
1	2.1	1.9	65	84	64	90	20.0	33
4	4.1	3.8	56	77	52	77	23.0	34
10	6.5	5.3	50	67	44	70	25.0	33
16	8.3	7.5	47	64	40	66	25.0	31
31.25	11.7	10.5	43	61	34	61	23.6	30
62.5	17.0	14.6	38	53	28	52	21.5	33
100	22.0	19.0	35	43	24	48	20.1	24
155	-	25.0	-	40	-	31	-	22
200	-	28.9	-	38	-	27	-	22

IDENTIFICATION COLOUR CODING

Pair 1		Pair 2		Pair 3		Pair 4	
Blue	White\ Blue	Orange	White\Orange	Green	White\Green	Brown	White\ Brown

SHEATH MARKING

“CABLEL F/UTP 4x2x24 AWG 100 MHz cat5e in accordance with ISO/IEC 11801 + IEC61156-5 + TIA/EIA 568B – Length m”.

PACKING

The cables are delivered in non-returnable carton boxes of 305m or on plywood bobbins of 500m or 1000m.

Any particular requirements about packing, drum marking, cable length per drum can be provided if requested.