

APPLICATION

PBX, V.11, X.21, ISDN, Ethernet (10Base-T), ATM-25/52/155 Mbit/s, 100VG-AnyLAN, Fast Ethernet (100BASE-TX), Token Ring 16/100 Mbit/s, Gigabit Ethernet (1000BASE-T), Firewire 100 Mbit/s

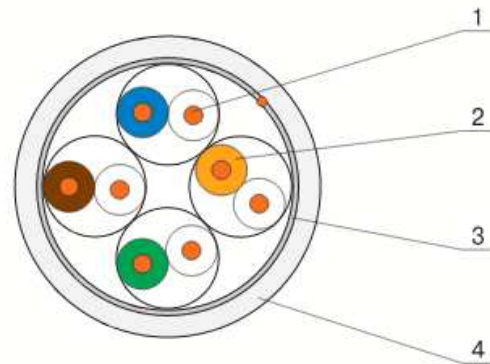
COMPLIANCE WITH THE REQUIREMENTS

- ISO/IEC 11801:2002
- EN 50173-1:2002
- ANSI/TIA/EIA-568-B.2-2001
- IEC 61156-5:2002
- TU U 31.3-05758730-020-200



DESIGN

- 1) Conductor: soft copper wire Diameter: 0.51 mm (24 AWG)
- 2) Insulation: polyethylene Conductor diameter: 1.07 mm Pair: two conductors twisted together
Colour identification of pairs:
pair 1: white-blue / blue
pair 2: white-orange / orange
pair 3: white-green / green
pair 4: white-brown / brown
Core: 4 pairs twisted together with a string
- 3) Pair shield: aluminum polymer foil (metal inside). Copper tinned contact wire Ø 0.4 mm is applied longitudinally under the shield.
- 4) Sheath: PVC or LSOH compound Sheath colour: white (PVC), orange or blue (LSOH) Maximum cable diameter: 6.6 mm



INSTALLATION AND OPERATION CONDITIONS

For stationary installation inside buildings, stations, structures and equipment in conditions of heightened electromagnetic impacts. Operated on frequencies up to 200 MHz

ELECTRICAL CHARACTERISTICS AT 20 °C

- Direct current resistance $\leq 96 \text{ Ohm/km}$
- Insulation resistance $\geq 5 \text{ Gohm/km}$
- Capacitance $\leq 56 \text{ pF/m}$
- Signal propagation velocity $\geq 0,68 \text{ s}$
- Propagation delay $\leq 534+36/\sqrt{f} \text{ ns/100 mc}$
- Delay shift on frequency: 100 MHz $\leq 45 \text{ ns/100 m}$
- Characteristic impedance in the frequency range: 1-100 MHz $100\pm 10 \text{ Ohm}$ 100-200 MHz $100\pm 15 \text{ Ohm}$
- Screening attenuation on: 30-200 MHz $\geq 40 \text{ dB}$
- Test voltage between cores, cores and shield (DC, 2 s) 2,5 kV
- Working voltage (DC) 72 V

SIGNAL TRANSMISSION PERFORMANCE AT 20 °C

Frequency (MHz)	Attenuation (dB/100 m)		NEXT (dB)		PS-NEXT (dB)		EL-FEXT (dB)		PS-ELFEXT (dB/100 m)		RL (dB)	
	max.*	nom.	min.*	nom.	min.*	nom.	min.*	nom.	min.*	nom.	min.*	nom.
1**	2,1	1,9	65,3	78,0	62,3	75,0	64,0	70,0	61,0	67,0	20,0	25,00
4	4,1	3,8	56,3	76,0	53,3	73,0	52,0	58,0	49,0	55,0	23,0	30,00
10	6,5	6,0	50,3	74,0	47,3	71,0	44,0	52,0	41,0	49,0	25,0	37,00
16	8,3	7,7	47,2	70,0	44,2	67,0	39,9	48,0	36,9	45,0	25,0	34,00
20	9,3	8,6	45,8	69,0	42,8	66,0	38,0	46,0	35,0	43,0	25,0	34,00
31,25	11,7	10,9	42,9	63,0	39,9	60,0	34,1	40,0	31,1	37,0	23,6	33,00
62,50	17,0	15,8	38,4	60,0	35,4	57,0	28,1	36,0	25,1	33,0	21,5	28,00
100	22,0	20,5	35,3	58,0	32,3	55,0	24,0	32,0	21,0	29,0	20,1	24,00
125	24,9	23,2	33,8	54,0	30,8	51,0	22,1	30,0	19,1	27,0	19,4	23,50
200	32,4	30,3	30,8	48,0	27,8	45,0	18,0	26,0	15,0	23,0	18,0	21,00

*IEC 61156-5:2002

**Values lower than 4 MHz are given for information only

MECHANICAL CHARACTERISTICS

Temperature range: During installation -10 °C ... +60 °C

After installation -20 °C ... +60 °C

Bending radius: During installation ≥ 8 cable diametersAfter installation ≥ 4 cable diametersTensile stress ≤ 85 N**PACKING**

Box with 305 m of cable.

Logo on the box : OPTRO-NET , blue color – see the box view below

Type marking on the each box : **F/UTP , 5e, PVC****MARKING**

On the FTP cat.5e: OPTRO-NET F/UTP cat 5e 4Pr 24AWG PVC NVP 68% ISO/IEC 1181<year of production> K 29 <metric mark>

Label on the box : standard of manufacturer with code of cable, without logo of manufacturer, without name of manufacturer and without any cyrillic letter

ORDER INFORMATION

Code	Cable type	Sheath	Packing	Weight, kg/km
49352	F/UTP cat 5e 4Pr 24AWG	PVC	Box 305 m	45.2