



APPLICATION :

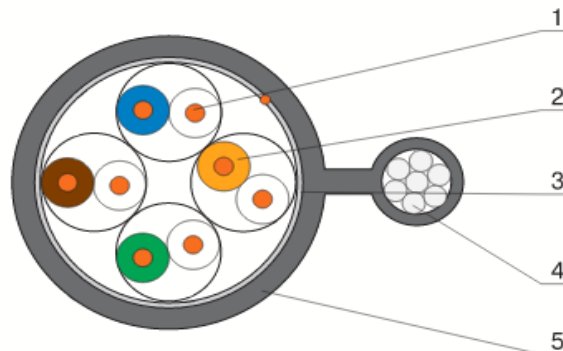
PBX, V.11, X.21, ISDN, Ethernet (10Base-T), ATM-25/52/155 Mbit/s, 100VG-AnyLAN, Fast Ethernet (100BASE-TX), Token Ring 16/100 Mbit/s, Gigabit Ethernet (1000BASE-T), Firewire 100 Mbit/s

COMPLIANCE WITH THE REQUIREMENTS

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

DESIGN

- 1) Conductor: soft copper wireDiameter: 0.51 mm (24 AWG)
- 2) Insulation: polyethyleneConductor diameter: 1.07 mmPair: two conductors twisted togetherColour identification of pairs:
 - pair 1: white-blue / blue
 - pair 2: white-orange / orange
 - pair 3: white-green / green
 - pair 4: white-brown / brownCore: 4 pairs twisted together with a string
- 3) Pair shield: aluminum polymer foil (metal inside).Copper tinned contact wire \varnothing 0.4 mm is appliedlongitudinally under the shield.
- 4) Strength member: steel ropeDiameter: 1.5 mm
- 5) Sheath: UV-stabilized polyethyleneSheath colour: blackMaximum cable dimentions: 7.4x12.9 mm



CABLES FOR INDOOR INSTALLATION INSTALLATION AND OPERATION CONDITIONS

For suspension on overhead communication lines. Operation in conditions of heightened electromagnetic impacts on frequencies up to 100 MHz

ELECTRICAL CHARACTERISTICS AT 20 °C

Direct current resistance ≤ 96 Ohm/km
Insulation resistance ≥ 5 Gohm/km
Capacitance ≤ 56 pF/m
Signal propagation velocity ≥ 0.68 s
Propagation delay $\leq 534+36/\sqrt{f}$ ns/100 m

MECHANICAL CHARACTERISTICS

Temperature range: During installation -15 °C ... $+60$ °C After installation -50 °C ... $+60$ °C
Bending radius: During installation ≥ 10 cable diameters After installation ≥ 4 cable diameters
Tensile stress $\leq 1,2$ kN

MARKING

OPTRO-NET <year of production> FTP outdoor CAT.5e 100 MHz 4Pr AWG24 NVP 68% ISO/IEC 11801 100 OHM K-29 <metric mark>

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

*IEC 61156-5:2002

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

ORDER INFORMATION

Code	Cable type	Sheath	Packing	Weight, kg/km
49312	FTP cat.5e (100) 4x2x0,51	PE	Coil 500 m	64,2