


**DESIGN**

- 1) Conductor: solid annealed copper
- 2) Insulation: solid PE
- 3) Pair: two conductors twisted together  
Color identification of pairs:
  - pair 1: white-blue / blue
  - pair 2: white-orange / orange
  - pair 3: white-green / green
  - pair 4: white-brown / brown
- 4) Core wrapping
- 5) Copper tinned contact wire  $\varnothing$  0,4 mm
- 6) Core shield: aluminum polymer foil (metal outside)
- 7) Jacket: PVC, color RAL 7035

**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, ATM LAN 1,2 Gbit/s

**COMPLIANCE WITH THE REQUIREMENTS**

Cable: IEC 61156-5 (cat.5e)  
Cabling: ISO/IEC 11801-1 & EN 50173-1 (class D), ANSI/TIA 568-C.2 (cat.5e)  
Fire safety: IEC 60332-1, CPR class Eca

**MECHANICAL CHARACTERISTICS**

Temperature range:

- During installation -10 °C ... +60 °C
- After installation -20 °C ... +60 °C

Bending radius:

- During installation  $\geq 8$  cable diameters
- After installation  $\geq 4$  cable diameters

Tensile stress  $\leq 85$  N

**ELECTRICAL CHARACTERISTICS AT 20 °C**

Parameter	Unit	Value
Capacitance	pF/m	$\leq 56$
Direct current resistance for conductors with $\varnothing$ :	Ohm/km	$\leq 92$
0,51 mm		$\leq 103$
0,48 mm		$\leq 112$
0,46 mm		$\leq 123$
Insulation resistance	GOhm*km	$\geq 5$
Resistance unbalance	%	2
Signal propagation velocity	s	0,69
Characteristic impedance in the frequency range of: 1-100 MHz	Ohm	100 $\pm$ 15
Test voltage between cores, (DC, 2 s)	kV	2,5

Frequency, MHz	1	4	10	16	20	31,25	62,5	100
Attenuation, dB, max; for max. cable lengths with conductor $\varnothing$ :	2,1	4,1	6,5	8,3	9,3	11,7	17,0	22,0
0,51 mm = 104 m								
0,48 mm = 92 m								
0,46 mm = 84 m								
0,44 mm = 77 m								
NEXT, dB, min	65,3	56,3	50,3	47,2	45,8	42,9	38,4	35,3
PS NEXT, dB, min	62,3	53,3	47,3	44,2	42,8	39,9	35,4	32,3
ELFEXT, dB, min	64	52	44	40	38	34	28	24
PS ELFEXT, dB, min	61	49	41	37	35	31	25	21
RL, dB, min	20,0	23,0	25,0	25,0	25,0	23,3	20,7	19,0

IEC 61156-5, values lower than 4 MHz are given for information only

**ORDER INFORMATION**

P/N	Cable name	Conductor $\varnothing$ , mm	Insulated conductor $\varnothing$ , mm	Outer cable $\varnothing$ , mm	Packing	Weight, kg/km
49352-15	KPVE-VP (200) 4x2x0,51 (F/UTP-cat.5E)	0,51	1,03	5,780	box, 305 m	37,135
49577-11	KPVE-VP (100) 4x2x0,48 (U/UTP-cat.5E-SL)	0,48	0,97	5,513	box, 305 m	34,074
49559-9	KPVE-VP (100) 4x2x0,46 (U/UTP-cat.5E-SL)	0,46	0,93	5,357	box, 305 m	32,186
49641-3	KPVE-VP (100) 4x2x0,44 (U/UTP-cat.5E-SL)	0,44	0,89	5,179	box, 305 m	30,316