

**UTP-H kat.5e 4x2x0,5 mm – 155 MHz****LOCAL AREA NETWORK CABLES**Operating voltage  
max 150 VTest voltage  
700 VTemp. range  
fixed installation  
from -20°C to +70°CTemp. range  
during installation  
from 0°C to +50°CBending radius  
4xDFlame retardant  
PN-EN 60332-1-2Indoor  
application

Halogen-free

Low smoke  
density

Non-toxic



Non-corrosive

**APPLICATIONS**

**UTP-H kat.5e 4x2x0,5 mm** cables are intended for multimedia computer networks (data, sound and HDTV transmission), including structural wiring of buildings, applied in industrial and other dedicated networks not sensitive to electromagnetic interferences.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

Halogen free material sheathed cable is applied in locations where, in case of fire, higher safety for human beings and property is required. The cable is flame retardant and its smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for fixed indoor installations.

**CONSTRUCTION**

- annealed copper single wire conductors of diameter 0.51 mm, 24 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable sheath made of halogen free compound (HFFR), orange, other colours also available.

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### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	DC loop resistance at 20°C, maximum	188 Ω/km
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Resistance unbalance of any pair of conductors, max.	2 %
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
Insulation resistance, minimum	5000 MΩ·km	Phase delay T	534+36/√f ns/100 m
Operating voltage	150 V	Corrosivity of emitted gases per pH appr.	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
Voltage test	700 V rms	conductivity appr.	6.8
Velocity of propagation	65 %	Smoke density	0.4 μS/mm
Return loss, minimum at f=4÷10 MHz	20+5lg(f) dB	light transmittance, minimum	PN-EN 61034-2, IEC 61034-2
Return loss, minimum at f=10÷20 MHz	25 dB	Operating temperature range during operation	70 %
Return loss, minimum at f=20÷155 MHz	25-7 lg(f/20) dB	during installation	from - 20 to + 70°C
		Minimum bending radius	from 0 to + 50°C
		Cable combustibility	4 x cable diameter
		Combustibility tests	flame retardant
		Reference standards	PN-EN 60332-1-2, IEC 60332-1-2
			PN-EN 50288-3-1, IEC 61156-5
			ISO/IEC 11801, TIA/EIA 568 A

#### Attenuation loss, maximum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
a	[dB/100 m]	2.1	4.3	5.9	6.6	8.2	9.2	10.5	11.8	17.1	22	28.1

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
NEXT	[dB]	65.3	56.3	51.8	50.3	47.3	45.8	44.3	42.9	38.4	35.3	32.5
PSNEXT	[dB]	62.3	53.3	48.8	47.3	44.3	42.8	41.3	39.9	35.4	32.3	29.5
ACR	[dB]	68.3	57.2	51.0	48.8	44.0	41.5	38.9	36.2	26.4	18.3	4.4

#### Far end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
ELFEXT	[dB]	63.8	51.7	45.7	43.8	39.7	37.7	35.8	33.9	27.8	23.8	19.9
PSELFEXT	[dB]	60.8	48.7	42.7	40.8	36.7	34.7	32.8	30.9	24.8	20.8	16.9

CE = the cable meets requirements of the low voltage directive 2014/35/EU

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0252 008	4 x 2 x 0,5	6.4	16.3	45

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