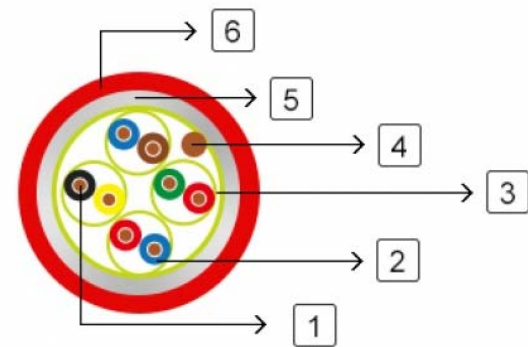


Fire Resistant UTP CAT5 Data Cables



FR-CAT5UTP4P24

Application: The cables are designed for structure wiring, compatible with all known connection systems according to EN 50173. Based on the design for structured wiring (found in IEC 61156 and BS EN 50288), this cable brings together high frequency data transmission and circuit integrity in four pair cable that will continue to transmit data even when being directly attacked by fire.

STANDARDS: Basic design to EN 50173

VOLTAGE RATING: 60V

FIRE PERFORMANCE

Circuit Integrity	IEC 60331-23; BS 6387 CWZ; DIN VDE 0472-814(FE180); CEI 20-36/2-1; SS229-1; NBN C 30-004 (cat. F3); NF C32-070-2.3(CR1)
System circuit integrity	DIN 4102-12, E30 depending on lay system
Flame Retardance (Single Vertical Wire Test)	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4
Halogen Free	IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1 ; BS 6425-1*
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2 ; BS 6425-2*
Minimum Smoke Emission	IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*
No Toxic gases	NES 02-713; NF C 20-454

Note: Asterisk * denotes superseded standard.

CABLE CONSTRUCTION

Conductors: Plain annealed copper wire, solid according to IEC(EN) 60228 class 1.
Insulation: PE wrapped with fire resistant silicone rubber compound type EI2 as per BS 7655-1.1.
Twisted Pairs: Insulated conductors are twisted into pairs with varying lay length to minimize crosstalk.
Cabling Elements: Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk. Two-pair cable had four cores laid in quad formation.
Cabling: Pairs are cabled together in concentric layers.
Outer Sheath: Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1 (Thermosetting LSZH compound type SW2-SW4 as per BS 7655-2.6 can be offered.)

Physical AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -5°C - +50°C
 Temperature range during installation (mobile state): -20°C - +90°C
 Minimum bending radius: 8 x Overall Diameter

Electrical Properties

Characteristic Impedance	100 Ohm±15%
Nominal Velocity of Propagation (NVP)	69%
Max. Dc Resistance	9.38 Ohm/100m
Max. Resistance Unbalance	5%
Max. Mutual Capacitance:	5.6 nF/100m

Maximum Capacitance Unbalance	330 pF/100m
Max. Propagation Delay Skew	30 ns/100m
Max. Propagation Delay	536 ns/100m@100 mhz
Max. Pulling Load	80N

Transmission Properties

FREQ (MHz)	NEXT(dB/100m) Minimum Value/Typical Value/ Standard Value	IL (dB/100m)	SRL (dB/100m) Minimum Value/Typical Value/ Standard Value
1	64.0/71.0/62.0	2.0	24.5/26.0/23.0
4	55.0/62.0/53.0	4.0	24.5/26.0/23.0
8	49.5/57.0/48.0	5.7	24.5/26.0/23.0
10	49.0/56.0/47.0	6.4	24.5/26.0/23.0
16	44.9/52.0/44.0	8.2	24.5/26.0/23.0
20	42.5/48.0/42.0	9.2	24.5/26.0/23.0
25	42.0/48.0/41.0	10.3	24.5/26.0/23.0
31.25	40.6/48.0/39.0	11.6	22.5/24.0/21.0
62.5	36.1/43.0/35.0	16.9	19.5/22.0/18.0
100	34.0/40.0/32.0	21.8	17.5/20.0/16.0

CONSTRUCTION PARAMETERS

Cable Code	Conductor Diameter	Nominal Insulation Thickness	Nominal Overall Diameter
	mm	mm	mm
FR-CAT5UTP4P24	0.5	0.25	5.3