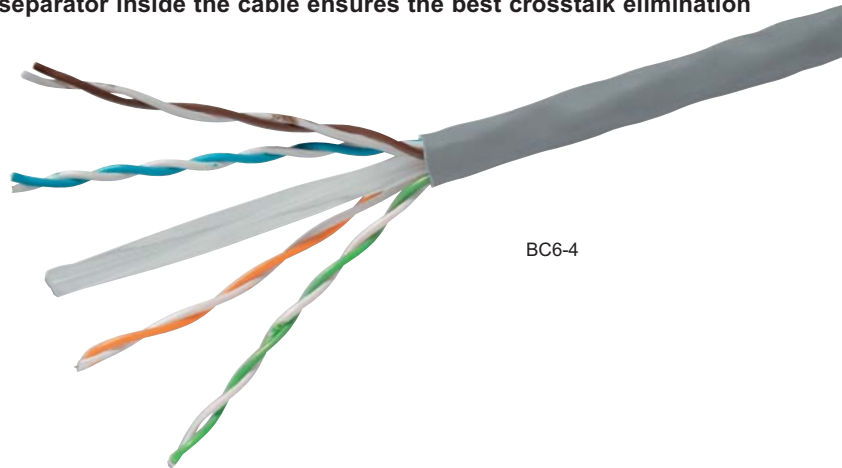


UTP Category 6 Installation Cable

Signamax Category 6 unshielded PVC and LSOH installation cables are designed to provide the highest level of transmission performance to meet the needs of today's most advanced voice and data networks. Category 6 cables support 10Base-T through 1000Base-T/TX protocols for data rates up to 1 Gb/s and exceed the requirements of TIA/EIA-568-B.2-1, ISO 11801:2002 and EN 50173-1 standards. The Signamax Category 6 cable conductor is AWG 23 bare copper wire with high density polyethylene insulation. The non-metallic cross separator inside the cable ensures the best crosstalk elimination between individual pairs.



Mechanical Properties

Bending radius	≥ 20 mm without load ≥ 40 mm with load
Temperature range, during operation	-20° up to +60°C
during installation	0° up to +50°C

Electrical Properties (at 20°C ± 5°C)

DC loop resistance	≤ 176 Ω/km
Resistance unbalance	≤ 2%
Insulation resistance (500 V)	≥ 5,000 MΩ *km
Capacitance at 800 Hz	nom. 48 nF/km
Capacitance unbalance (pair to ground)	≤ 1,500 pF/km
Characteristic impedance (1-100 MHz)	(100 ± 15) Ω
Characteristic impedance (1-100 MHz) (1-100 MHz)	(100 ± 15) Ω (100 ± 22) Ω
Nominal velocity of propagation	approx. 67%
Propagation delay	≤ 535 ns/100 m
Delay skew	≤ 20 ns/100 m
Test voltage (DC, 1 min)	
Core/Core and Core/Screen	1,000 V

Construction

Conductor	bare copper wire Ø 0.56 mm (AWG23)
Insulation	Polyethylene, Ø 1.0 mm
Twisting	2 cores to the pair
Sheath	non metallic cross separator (spline) PVC

Transmission characteristics acc. to CAT 6 (at 20°C)

f (MHz)	Attenuation (dB/100 m)		NEXT (dB)		ACR (dB/100 m)		Return loss (dB)
	max.	nom.	min.	nom.	min.	nom.	
1	2	2	74	90	71.8	88	23
4	3.8	3.8	65	89	61.2	85.2	23
10	6	6	59	89	53	82.8	23
16	7.6	7.6	56	86	48.4	78.1	23
20	8.5	8.5	55	84	46.5	75.8	23
31.2	10.7	10.7	52	81	41.3	70.7	23
62.5	15.5	15.1	47	77	31.5	61.8	23
100	19.9	19.1	44	74	24.1	54.7	23
125	22.5	21.3	43	72	20.5	51	21
155.5	25.4	23.8	42	71	16.6	47.1	21
175	27.1	25.3	41	70	13.9	44.9	21
200	29.2	27	40	69	10.8	42.3	21
250	33	32.6	38	68	5	35.2	19

Technical Data

Product code	Outer diameter	Fire load		Weight	Copper content	Tensile force
	mm	MJ/km	kWh/m			
BC6-4	6.2	358	0.099	39	18	80
BC6-4HF	6.2	329	0.091	40	18	80

UTP Category 6 Installation Cable

PART NO.	DESCRIPTION
BC6-4	Category 6 UTP Installation Cable, 500 m reels, PVC
BC6-4HF	Category 6 UTP Installation Cable, 500 m reels, LSOH