

124969

Cat.5e F/UTP DataGuard® (SWA) HDPE

Application

High speed data transmission functionality designed typically for use in horizontal cable installation of local computer networks. IEEE 802.3, IEE 802.5, FDDI, ATM, RNIS. These cables operate to the protocol supported by Class D as set out in ISO/IEC 11801 although they can transmit at frequencies of up to 200MHz. This cable utilises DataGuard armouring for use in harsh environments including direct burial, rodent and mechanical protection.



Cable Design

Conductor	Solid Bare copper wire (24awg) \approx 0,52mm
Insulation	Polyethylene (HDPE), $\varnothing \approx$ 0,96mm
Twisting	2 cores to the pair
Cable lay up	4 pairs cabled together
Screen	Overall Aluminium/polyester tape with solid TC drain wire
Inner Jacket	LSZH FireFighter® : \varnothing 6,0 mm \pm 10%
Armour	DataGuard® Steel Wire Armour (SWA)
Outer Jacket	HDPE - Polyethylene : \varnothing 10,0 mm \pm 10%

Pair Identification	Pair 1 : Blue + White/Blue
	Pair 2 : Orange + White/Orange
	Pair 3 : Green + White/Green
	Pair 4 : Brown + White/Brown

Standards

Applicable Standards	IEC 61156-5, EN 50288-3-1, IS 11801 ed.2, EN 50173-1, EIA/TIA 568, EN50174
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Electrical Data @ 20°C

Complete conductor resistance	≤ 190 Ω/km
Resistance unbalance	≤ 2 %
Dielectric strength (continuous current)	1 kV during 1 min=no breakdown
Insulation resistance (500V)	≥ 5000 MΩ . km
Capacitance unbalance Real-ground	≤ 1600 pF/km
Characteristic impedance at 100 MHz	100 ± 5 Ω
Nom. Velocity	78 %
Transfer Impedance	1 MHz ≤ 40 mΩ/m
	10 MHz ≤ 40 mΩ/m
	30 MHz ≤ 50 mΩ/m
	100 MHz ≤ 200 mΩ/m
Insulation Test Voltage	700 V AC

Frequency (MHz)		4	10	20	62.5	100	155**	200**
Max. Attenuation (dB/100m)	Typical value	3.8	6	8.5	15.2	19.5	25	28
	Cat. 5e* (max.)	4.1	6.5	9.3	17	22	-	-
Min. NEXT (dB)	Typical value	63	57	52	45	42	39	37
	Cat. 5e* (min.)	56.3	50.3	45.8	38.4	35.3	-	-
Min. ACR (dB)	Typical value	59.2	51	43.5	29.8	22.5	14	9
	Cat. 5e* (min.)	52.2	43.8	36.5	21.4	13.3	-	-
PS NEXT (dB)	Typical value	60	54	49	42	39	36	34
	Cat. 5e* (min.)	53.3	47.3	42.8	35.4	32.3	-	-
ELFEXT (dB/100m)	Typical value	63	55	48	39	35	31	29
	Cat. 5e* (min.)	52	44	38	28	24	-	-
PS ELFEXT (dB/100m)	Typical value	60	52	45	36	32	28	26
	Cat. 5e* (min.)	49	41	35	25	21	-	-
Return Loss (dB)	Typical value	25	25	25	23.8	23	22	21
	Cat. 5e* (min.)	23	25	25	21.5	20.1	-	-

* Category 5 acc. to IEC 61156-5 | ** For information only