

DATASHEET

ECOLAN® Cat.5e Installation Cable U/UTP 100MHz, PVC, CPR Eca



ECOLAN®

Cat.5E

PVC



Description

The unshielded ECOLAN® installation cable Cat.5e is constructed for transmissions up to 100MHz. Best suitable for cabling systems of the channel class D.

Mechanical characteristics

Bending radius (dynamic)	8 x OD
Bending radius (static)	4 x OD

Kabelaufbau

Cable structure	U/UTP
Category	5e
Conductor category	Kl.1 = single wire
Conductor material	CU, tinned
AWG-size/quantity of cores	24/1
Diameter conductor	0.49 mm
Screen over stranding	without
Stranding element	pairs
Screen over stranding element	without
Core insulation	foam-skin PE
Core identification	colour

Kabelmantel

Material outer sheath	PVC
Euro class	Eca
Flame retardant	acc. EN 60332-1

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Environmental conditions

Operating temperature, flexible	0 – 50 °C
Operating temperature, fix	-20 – 60 °C

Electrical characteristics

NVP value	67 %
Loop resistance	≤ 188 Ohm/km
Resistance unbalance	≤ 5 %
Insulation resistance (500V)	≥ 5000 MOhm/km
Test voltage DC, 1 min	700 V
Capacity to earth	nom. 50 nF/km
Impedance	100 ± 15 Ohm
Delay skew	≤ 45 ns/100m
Transfer impedance at 1MHz	20 mOhm/m
Transfer impedance at 10MHz	30 mOhm/m
Transfer impedance at 30MHz	40 mOhm/m
Transfer impedance at 100MHz	200 mOhm/m
Separation class acc. EN50174-2	B

Standards, approvals, certifications

Cabling standards	EN 50173;ISO/IEC 11801;TIA/EIA 568 B-2.1
Harmonised Standard	EN 50575
Transmission standards	IEEE 802.3 10Mbit to 10Gbit
Cable	IEC 61156-5;EN 50288-2

Available variants

Article no.	Title	Length	Colour outer sheath	RAL colour	Number of cores	Type	Outer diameter approx.
11930515-CPR	ECOLAN® CAT.5e AWG24, UTP 4P CPR Eca, PVC grey, 305m Box	305.0 m	grey	RAL7035	8	simplex	5.0 mm

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Technical drawings

Übertragungstechnische Eigenschaften (nominal) gemäß Cat.5e (bei 20°C)

Technical Performance (100m):

Frequency (MHz)	RL \geq dB	ATT \leq dB	NEXT \geq dB	Phase DELAY \leq ns	PSNEXT \geq dB	ELFEXT \geq dB	PSELFEXT \geq dB
1	20.0	2.0	65.3	570.00	62.3	63.8	60.8
4.0	23.0	4.1	56.3	552.00	53.3	51.8	48.8
8.0	24.5	5.8	51.8	546.73	48.8	45.7	42.7
10.0	25.0	6.5	50.3	545.38	47.3	43.8	40.8
16.0	25.0	8.2	47.2	543.00	44.4	39.7	36.7
20.0	25.0	9.3	45.8	542.05	42.8	37.8	34.8
25.0	24.3	10.4	44.3	541.20	41.3	35.8	32.8
31.25	23.6	11.7	42.9	540.44	39.9	33.9	30.9
62.5	21.5	17.0	38.4	538.55	35.4	27.9	24.9
100	20.1	22.0	35.3	537.60	32.3	23.8	20.8

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