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INFRALAN® Cat.7 Installation Cable S/FTP 1000 MHz, CPR Eca

Description

The INFRALAN® installation cable 99980.x-CPR is constructed for transmissions up to **1000 MHz** and exceeds the requirements of the category 7 with the electrical transmission properties. With this cable transmission rates up to 10 GBit according to IEEE 802.3 are possible.

Mechanical characteristics

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

Cable construction

Cable structure	S/FTP
Category	7
Conductor category	Kl.1 = single wire
Conductor material	Cu, blank
AWG-size/quantity of cores	23/1
Diameter conductor	0.56 mm
Nominal cross section conductor	0.26 mm²
Screen over stranding	braiding
Stranding element	pairs
Screen over stranding element	foil

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Cable construction	
Core insulation	foam-skin PE
Core identification	colour

Cable sheath	
Material outer sheath	FRNC
Euro class	Eca
Flame retardant	acc. EN 60332-1
Halogen free	acc. EN 60754-1/2
Low smoke	acc. EN 61034

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

Electrical characteristics	
PoE	yes;PoE+
NVP value	79 %
Loop resistance	154 Ohm/km
Resistance unbalance	≤ 2 %
Insulation resistance (500V)	≥ 2000 MOhm/km
Test voltage DC, 1 min	1000 V
Capacity to earth	nom. 43 nF/km
Impedance	100 ± 5 Ohm
Delay skew	≤ 12 ns/100m
Transfer impedance at 1MHz	12 mOhm/m
Transfer impedance at 10MHz	10 mOhm/m
Transfer impedance at 30MHz	30 mOhm/m
Separation class acc. EN50174-2	D
Coupling attenuation Type	Type 2
Coupling attenuation	80 dB
Max. Freuqency	1000 MHz

Standards, approvals, certifications	
Cabling standards	ISO/IEC 11801;EN 50173-1;EN 50288
Harmonised Standard	EN 50575
Transmission standards	IEEE 802.3 10Mbit to 10Gbit
Cable	IEC 61156-5;EN 50288-4-1

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Available variants

Article no.	Title	Length	Colour outer sheath	RAL colour	Number of cores	Type	Outer diameter approx.	Copper weight	Weight	Max. tractive force	Fire load
99980.100-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Eca orange, 100m	100.0 m	orange	RAL 2003	8	simplex	7.3 mm	26 kg/km	54.5 kg/km	110 N	590 MJ/km

Article no.	Title	Length	Colour outer sheath	RAL colour	Number of cores	Type	Outer diameter approx.	Copper weight	Weight	Max. tractive force	Fire load
99980.1-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Eca orange	1.0 m	orange	RAL 2003	8	simplex	7.3 mm	26 kg/km	54.5 kg/km	110 N	590 MJ/km

Article no.	Title	Length	Colour outer sheath	RAL colour	Number of cores	Type	Outer diameter approx.	Copper weight	Weight	Max. tractive force	Fire load
99980.250-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Eca orange, 250m	250.0 m	orange	RAL 2003	8	simplex	7.3 mm	26 kg/km	54.5 kg/km	110 N	590 MJ/km
99980.25-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Eca orange, 25m	25.0 m	orange	RAL 2003	8	simplex	7.3 mm	26 kg/km	54.5 kg/km	110 N	590 MJ/km
99980.500-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Eca orange, 500m	500.0 m	orange	RAL 2003	8	simplex	7.3 mm	26 kg/km	54.5 kg/km	110 N	590 MJ/km

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99980.50-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Eca orange, 50m	50.0 m	orange	RAL 2003	8	simplex	7.3 mm	26 kg/km	54.5 kg/km	110 N	590 MJ/km
99980DX.100-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 8P CPR Eca orange, 100m	100.0 m	orange	RAL 2003	2x8	duplex	7.2 x 15.0 mm	52 kg/km	109.2 kg/km	220 N	1190 MJ/km
99980DX.250-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 8P CPR Eca orange, 250m	250.0 m	orange	RAL 2003	2x8	duplex	7.2 x 15.0 mm	52 kg/km	109.2 kg/km	220 N	1190 MJ/km
99980DX.25-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 8P CPR Eca orange, 25m	25.0 m	orange	RAL 2003	2x8	duplex	7.2 x 15.0 mm	52 kg/km	109.2 kg/km	220 N	1190 MJ/km
99980DX.500-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 8P CPR Eca orange, 500m	500.0 m	orange	RAL 2003	2x8	duplex	7.2 x 15.0 mm	52 kg/km	109.2 kg/km	220 N	1190 MJ/km
99980DX.50-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 8P CPR Eca orange, 50m	50.0 m	orange	RAL 2003	2x8	duplex	7.2 x 15.0 mm	52 kg/km	109.2 kg/km	220 N	1190 MJ/km

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Technical drawings

Elektrische Daten (nominal) gem. Cat.7 (bei 20°C)

F (MHZ)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ACRF (dB/100m)	PS- ACRF (dB/100m)	Return loss (dB)
1,0	1,8	100	97	98	95	105	105	-
4,0	3,4	100	97	97	94	105	102	27
10,0	5,4	100	97	95	92	97	94	30
16,0	6,8	100	97	93	90	93	90	30
20,0	7,7	100	97	92	89	91	88	30
31,2	9,6	100	97	90	87	87	84	30
62,5	13,7	100	97	86	83	81	78	30
100,0	17,4	100	97	83	80	77	74	30
125,0	19,5	95	92	75	72	75	72	26
155,5	21,9	94	91	72	69	73	70	26
200,0	25,0	92	89	67	64	71	68	25
250,0	28,1	90	87	62	59	69	66	24
300,0	30,9	89	86	58	55	67	64	24
450,0	38,3	87	84	48	45	64	61	23
600,0	44,8	85	82	40	37	61	58	22
750,0	52,0	83	80	31	28	59	56	21
900,0	59,4	82	79	23	20	58	55	20
1000,0	63,1	80	77	17	14	57	54	20