

DATASHEET

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





Cat.7 FRNC-C



CE



Description

The INFRALAN® installation cable 99981.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. Additional this Cable is certified by GHMT PVP program in simplex version.

General data

Cable silicone free	yes
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Mechanical characteristics

Bending radius (dynamic)	≥ 60 mm
Bending radius (static)	≥ 30 mm

Cable construction

Cable structure	S/FTP
Category	7
Conductor category	Class 1 = solid
Conductor material	Cu, blank
AWG-size/quantity of cores	23/1

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Cable construction

Diameter conductor	0.56 mm
Nominal cross section conductor	0.26 mm ²
Screen over stranding	braiding
Stranding element	pairs
Screen over stranding element	foil
Core insulation	cellular PE
Core identification	colour

Cable sheath

Material outer sheath	FRNC
Euro class	Cca
Flame retardant	acc. EN 60332-3-24
Halogen free	yes
Low smoke	acc. EN 61034-2

Environmental conditions

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

Electrical characteristics

PoE	yes;PoE+
NVP value	78 %
Loop resistance	≤ 146 Ohm/km
Resistance unbalance	≤ 2 %
Dielectric strength DC	1 kV/1 min
Insulation resistance (500V)	≥ 5000 MOhm/km
Capacity to earth	≤ 1600 pF/km
Impedance	100 ± 5 Ohm
Transfer impedance at 1MHz	≤ 10 mOhm/m
Transfer impedance at 10MHz	≤ 10 mOhm/m
Transfer impedance at 30MHz	≤ 20 mOhm/m
Transfer impedance at 100MHz	≤ 30 mOhm/m
Separation class acc. EN50174-2	D
Coupling attenuation Type	Type 1b
Coupling attenuation	≥ 80 dB
Max. Frequency	1000 MHz

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Standards, approvals, certifications

Cabling standards	EN 50173-1;ISO/IEC 11801
Installation standard	EN 50174
Harmonised Standard	EN 50575
Directive/Regulation	RoHS 2011/65/UE;REACH 1907/2006/EC
Transmission standards	IEEE 802.3 10Mbit to 10Gbit
Cable	IEC 61156-5;EN 50288-4-1

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
99981.100-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Cca orange, 100m	100.0 m	orange	RAL2003	8	simplex	7.5 mm	28 kg/km	58 kg/km	95 N	0.57 MJ/m
99981.1-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Cca orange	1.0 m	orange	RAL2003	8	simplex	7.5 mm	28 kg/km	58 kg/km	95 N	0.57 MJ/m
99981.200-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Cca orange, 200m	200.0 m	orange	RAL2003	8	simplex	7.5 mm	28 kg/km	58 kg/km	95 N	0.57 MJ/m
99981.500-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Cca orange, 500	500.0 m	orange	RAL2003	8	simplex	7.5 mm	28 kg/km	58 kg/km	95 N	0.57 MJ/m

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99981DX.100-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 2x4P CPR Cca orange, 100m	100.0 m	orange	RAL2003	2x8	duplex	7.5 x 15.8 mm	56 kg/km	116 kg/km	190 N	1.14 MJ/m
99981DX.500-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 2x4P CPR Cca orange, 500m	500.0 m	orange	RAL2003	2x8	duplex	7.5 x 15.8 mm	56 kg/km	116 kg/km	190 N	1.14 MJ/m

Technical drawings

Übertragungseigenschaften bei 20°C

Frequenz (MHz)		4	10	20	62.5	100	250	300	600	1000**
Dämpfung (dB/100 m)	Typ. Wert	3.6	5.5	7.9	14.5	18.5	29.6	32.8	47.6	63.8
	Max. Wert*	3.7	5.9	8.3	14.9	19	31	34.2	50.1	-
NEXT (dB)	Typ. Wert	95	95	95	95	95	88	87	82	78
	Max. Wert*	78	78	78	75	72	66	65	61	-
PS NEXT (dB)	Typ. Wert	92	92	92	92	92	85	84	79	75
	Max. Wert*	75	75	75	72	69	63	62	58	-
ELFEXT (dB/100 m)	Typ. Wert	85	85	84	82	78	70	67	55	52
	Max. Wert*	78	74	68	58	54	46	44	38	-
PS ELFEXT (dB/100 m)	Typ. Wert	82	82	81	79	75	67	64	52	49
	Max. Wert*	75	71	65	55	51	43	41	35	-
Return Loss (dB)	Typ. Wert	26	26	26	26	24	22	21	19	18
	Max. Wert*	23	25	25	21.5	20.1	17.3	17.3	17.3	-

*Kategorie 7 gem. IEC 61156-5

**informative Werte