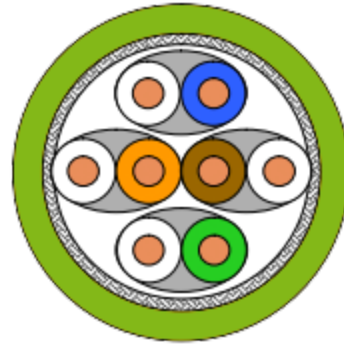


Loxone CAT7 cable

Art. Nr.: 200129

STANDARDS

- EN 50173-1; EN 50288-4-1
- ISO/IEC 11801; IEC 61156-5
- Reaction to fire: ECA



APPLICATION

- Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
- IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T
- IEEE 802.5 16 MB; ISDN; TPDDI; ATM

FLAME RESISTANCE

- LSHF: IEC 60332-1; IEC 60754-2; IEC 61034

CONSTRUCTION

Conductor	bare copper wire, Ø 0.56mm (AWG 23)
Insulation	Foamskin PE, Ø 1.38 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated plastic foil
Cable lay up	4 pairs (PiMF) to the core
Screen	copper braid, tinned (ca. 40 % coverage)
Sheath	LSHF or LSHF-FR, green

MECHANICAL PROPERTIES

Bending radius	without load	≥ 30 mm
	with load	≥ 60 mm
Temperature range	during operation	- 4°F to 140°F (-20°C to + 60°C)
	during installation	32°F to 122°F (0°C to + 50°C)

ELECTRICAL PROPERTIES

at 20°C±5°C

Loop resistance		≤ 165 Ω /km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 2000 MΩ *km
Mutual capacitance	bei 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Characteristic impedance	(1-100 MHz)	(100 ± 15) Ω
	(100 - 250) MHz (250 - 600) MHz	(100 ± 18) Ω (100 ± 25) Ω
Nominal velocity of propagation		ca. 79 %
Propagation delay		≤ 427 ns/100m
Delay skew		≤ 12 ns/100m
Test voltage	(DC, 1 min) core/core und core/screen	1000 V
Transfer impedance	bei 1 MHz	≤ 12 mΩ /m (Grade 2)
	bei 10 MHz	≤ 10 mΩ /m (Grade 2)
	bei 30 MHz	≤ 30 mΩ /m (Grade 2)
Coupling attenuation		> 80 dB (Type 2)
Segregation classification acc. EN 50174-2		"D"

ELECTRICAL DATA (nominal)

acc. ro Cat.7 (at 20°C)

F (MHZ)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (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	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	17,5	100	97	93	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
175,0	23,3	93	90	70	67	72	69	25
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