Data Sheet

HUBER+SUHNER

Flexible RF cable
RADOX_RF_214 Item: 85023731

Description

RADOX RF: Highly flame retardant LSFH alternatives to RG cables

RG214 LSFH, 50 Ohm, 6 GHz, 105°C, ø11.1 mm, RADOX® jacket, Flame retardant, Railway qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Strand-07	2.25 mm
Dielectric	PEX (Polyethylene cross-linked)		7.28 mm
Outer conductor	Copper, Silver plated	Braid, 93%	8 mm
Outer conductor	Copper, Silver plated	Braid, 95 %	8.6 mm
Jacket	RADOX EM104	RAL 9005 - bk	11.1 mm +/- 0.1

Print: HUBER+SUHNER RADOX_RF_214 50 Ohm (production order number)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		6 GHz
Capacitance		101.4 pF/m
Velocity of signal propagation		66 %
Signal delay		5.03 ns/m
Screening effectiveness		≥ 81 dB (up to 6 GHz)
Operating voltage		≤ 5 kV_{rms} (at sea level)
Test voltage		10 kV_{rms} (50 Hz/1 min)

Mechanical Data

Weight		20.3 kg/100 m
Min. bending radius	static	50 mm
	repeated (for ≤ 50 bendings)	110 mm
	dynamic	170 mm

Environmental Data

Temperature range	-40 °C ... +105 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	EN 60332-1-2, IEC 60332-3-25
Smoke density test	EN 61034-2
Halogen test	IEC 60754
Halogen free	Yes
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant
2000/53/EC (ELV)	compliant
2012/19/EU (WEEE)	no special marking needed

Additional Information

EN 45545 compliant Hazard level for indoor cables: HL3 NFPA-130 compliant An operating temperature of -55°C is feasible for static applications.

Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

Suitable Connectors

Cable group	U43 7 mm / 50 Ohm

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Matrix typical Attenuation [formula: (a*f^0.5 + b*f)] and maximum Power CW [formula: (p/f^0.5)]
Coefficients:

a = 0.2203	b = 0.0874	f_{max} = 6	P at 1GHz = 560

Frequency	Nom. attenuation	Nom. attenuation	Max. CW power
(GHz)	(dB / m)	(dB / ft)	(W)
	sea level 25° C ambient temperature	sea level 25° C ambient temperature	sea level 40° C ambient temperature
0,3	0,15	0,045	1022
0,6	0,22	0,068	723
0,9	0,29	0,088	590
1,2	0,35	0,106	511
1,5	0,4	0,122	457
1,8	0,45	0,138	417
2,1	0,5	0,153	386
2,4	0,55	0,168	361
2,7	0,6	0,182	341
3,0	0,64	0,196	323
3,3	0,69	0,210	308
3,6	0,73	0,223	295
3,9	0,78	0,236	284
4,2	0,82	0,249	273
4,5	0,86	0,262	264
4,8	0,9	0,275	256
5,1	0,94	0,287	248
5,4	0,98	0,300	241
5,7	1,02	0,312	235
6,0	1,06	0,324	229

Waiver: Fact and figures herein are for information only and do not represent any warranty of any kind.