Data Sheet

HUBER+SUHNER

Flexible RF cable
RADOX_RF_179 Item: 85023705

Description

RADOX RF: Highly flame retardant LSFH alternatives to RG cables

RG179 LSFH, 75 Ohm, 3 GHz, 105°C, ø2.8 mm, RADOX® jacket, Flame retardant, Railway qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Strand-07	0.305 mm
Dielectric	SPEX (Crosslink Foam PE)		1.55 mm
Outer conductor	Copper, Silver plated	Braid, 94%	2 mm
Jacket	RADOX EM104	RAL 9005 - bk	2.8 mm +/- 0.1

Print: HUBER+SUHNER RADOX_RF_179 75 Ohm (production order number)

Electrical Data

Impedance		75 Ω +/- 3
Operating Frequency		3 GHz
Capacitance		63 pF/m
Velocity of signal propagation		69.7 %
Signal delay		4.78 ns/m
Screening effectiveness		≥ 40 dB (up to 1 GHz)
Operating voltage		≤ 1 kV_{rms} (at sea level)
Test voltage		2 kV_{rms} (50 Hz/1 min)

Mechanical Data

Weight		1.3 kg/100 m
Min. bending radius	static	5 mm
	repeated (for ≤ 50 bendings)	25 mm

Environmental Data

Temperature range	-40 °C ... +105 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	EN 60332-1-2, EN 50305, 9.1.2, IEC 60332-3-24, UL 1581 § 1100
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	U5 2 mm / 75 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 =	0.8288	b =	0.0725	f_{max} =	3	P at 1GHz =	45

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
0,15	0,33	0,101	116
0,3	0,48	0,145	82
0,45	0,59	0,179	67
0,6	0,69	0,209	58
0,75	0,77	0,235	52
0,9	0,85	0,260	47
1,05	0,93	0,282	44
1,2	0,99	0,303	41
1,35	1,06	0,323	39
1,5	1,12	0,343	37
1,65	1,18	0,361	35
1,8	1,24	0,379	34
1,95	1,3	0,396	32
2,1	1,35	0,412	31
2,25	1,41	0,429	30
2,4	1,46	0,444	29
2,55	1,51	0,460	28
2,7	1,56	0,475	27
2,85	1,61	0,489	27
3,0	1,65	0,504	26

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