

Flexible RF cable RADOX_RF_400

Description

RADOX RF: Highly flame retardant LSFH alternatives to RG cables

RG400 LSFH, 50 Ohm, 6 GHz, 105°C, ø5.34 mm, RADOX® jacket, Flame retardant, Railway qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Strand-19	1 mm
Dielectric	SPEX (Crosslink Foam PE)		2.98 mm
Outer conductor	Copper, Silver plated	Braid, 96%	3.61 mm
Outer conductor	Copper, Silver plated	Braid, 94 %	4.2 mm
Jacket	RADOX EM104	RAL 9005 - bk	5.34 mm +/- 0.06

Print: HUBER+SUHNER RADOX_RF_400 50 Ohm (PA no.)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	6 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	70.3 %
Signal delay	4.74 ns/m
Insulation resistance	≥ 1 x 10 ⁷ MΩm
Min. screening effectiveness	≥ 70 dB (up to 6 GHz)
Max. operating voltage	≤ 2.5 kV _{rms} (at sea level)
Test voltage	5 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight		5.6 kg/100 m
Min. bending radius	static	10 mm
	repeated (for ≤ 50 bendings)	40 mm
	dynamic	40 mm

Environmental Data

Temperature range	-40 °C... +105 °C
Installation temperature	-20 °C... +60 °C
Flammability	EN 60332-1-2, EN 50305, 9.1.2, IEC 60332-3-24
Smoke density	EN 61034-2
Halogen test	IEC 60754
2011/65/EU (RoHS)	compliant

Additional Information

EN 45545 compliant
 Hazard level for indoor cables: HL3
 NFPA-130 compliant

Ordering Information

Order as RADOX_RF_400

Remarks

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

Suitable Connectors

Cable group U41 3 mm / 50 Ohm

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Matrix typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

Coefficients:

a = 0.402

b = 0.142

$f_{\max} = 6$

P at 1GHz = 225

Frequency (GHz)	Nom. attenuation (dB / m) sea level 25° C ambient temperature	Nom. attenuation (dB / ft) sea level 25° C ambient temperature	Max. CW power (watt) sea level 40° C ambient temperature
0,3	0,26	0,080	411
0,6	0,4	0,121	290
0,9	0,51	0,155	237
1,2	0,61	0,186	205
1,5	0,71	0,215	184
1,8	0,79	0,242	168
2,1	0,88	0,268	155
2,4	0,96	0,294	145
2,7	1,04	0,318	137
3,0	1,12	0,342	130
3,3	1,2	0,365	124
3,6	1,27	0,388	119
3,9	1,35	0,411	114
4,2	1,42	0,433	110
4,5	1,49	0,455	106
4,8	1,56	0,476	103
5,1	1,63	0,497	100
5,4	1,7	0,518	97
5,7	1,77	0,539	94
6,0	1,84	0,560	92