

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

RADOX_RF_400

Properties

- Halogen free alternative to RG_400
- Low smoke
- Ozone, UV and weathering resistance
- Railway qualified
- HUBER+SUHNER RADOX® jacket material



Construction			
Component	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 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 6 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	70.3 %
Signal delay	4.74 ns/m
Screening effectiveness	≥ 70 dB at frequency 0.001 GHz ... 6GHz
Insulation resistance	10000000 MΩ*m
Operating Voltage (at sea level)	≤ 2.5 kVrms
Test voltage (50 Hz/1 min)	≤ 5 kVrms

Mechanical data	
Weight	approx. 56 g/m
Static bending radius	≥ 10 mm
Repeated bending radius	40 mm
Dynamic bending radius	< 40 mm

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Environmental data	
Operation temperature	-40 °C ... 105 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	EN 60332-1-2 EN 50305, 9.1.2
Fire characteristics	free of halogenes, acc. standard IEC 60754
Smoke test	EN 61034-2
UV resistance	ISO 4892-2A

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.

Suitable connectors

Cable group	U41
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Ordering information

Item number	Item description	Available as assembly only
85023720	RADOX_RF_400	No

Power Matrix

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

a coefficient typical =	0.402	b coefficient typical =	0.142
fmax =	6	P at 1 GHz =	225
Frequency GHz	Nom. attenuation (dB/m)	Nom. attenuation (dB/ft)	CW power (W)
	sea level 25°C ambient temperature	sea level 25°C ambient temperature	sea level 40°C ambient temperature
0.10	0.141	0.043	712
0.20	0.208	0.063	503
0.30	0.263	0.080	411
0.40	0.311	0.095	356
0.60	0.397	0.121	290
0.80	0.473	0.144	252
1.00	0.544	0.166	225
1.20	0.611	0.186	205
1.40	0.674	0.206	190
1.60	0.736	0.224	178
1.80	0.795	0.242	168
2.00	0.853	0.260	159
2.50	0.991	0.302	142
3.00	1.122	0.342	130
3.50	1.249	0.381	120
4.00	1.372	0.418	112
5.00	1.609	0.490	101
6.00	1.837	0.560	92

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