

RG316D LSFH, 50 Ohm, 8 GHz, 105°C, ø3.2 mm, RADOX® jacket

RADOX_RF_316_D

Properties

- Halogen free alternative to RG_316
- Suitable for use in applications up to 8 GHz
- Low smoke
- Ozone, UV and weathering resistance
- Railway qualified
- HUBER+SUHNER RADOX® jacket material



Construction			
Component	Material	Detail	Diameter
Centre conductor	Steel, Copper + Silver plated	Strand-07	0.54 mm
Dielectric	SPEX (Crosslink Foam PE)		1.53 mm
Outer conductor	Copper, Silver plated	Braid, 96%	1.99 mm
Outer conductor	Copper, Silver plated	Braid, 90%	2.44 mm
Jacket	RADOX EM104	RAL 9005 - bk	3.2 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 8 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	70.1 %
Signal delay	4.72 ns/m
Screening effectiveness	≥ 70 dB at frequency 0 GHz ... 6GHz
Insulation resistance	< 10000000 MΩ*m
Operating Voltage (at sea level)	≤ 1.5 kVrms
Voltage Rating UL	300 V
Test voltage (50 Hz/1 min)	≤ 3 kVrms

Mechanical data	
Weight	approx. 20 g/m
Static bending radius	≥ 5 mm
Repeated bending radius	30 mm (bendings, up to 50)

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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
	UL 1581 § 1100
	CFR/JAR/CS Part 25 Appendix F
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	U4
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Ordering information

Item number	Item description
85023719	RADOX_RF_316_D

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 =	0.7648	b coefficient typical =	0.1301
fmax =	8	P at 1 GHz =	110
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	0.255	0.078	348
0.20	0.368	0.112	246
0.30	0.458	0.140	201
0.40	0.536	0.163	174
0.60	0.670	0.204	142
0.80	0.788	0.240	123
1.00	0.895	0.273	110
1.20	0.994	0.303	100
1.40	1.087	0.331	93
1.60	1.176	0.358	87
1.80	1.260	0.384	82
2.00	1.342	0.409	78
2.50	1.535	0.468	70
3.00	1.715	0.523	64
3.50	1.886	0.575	59
4.00	2.050	0.625	55
5.00	2.361	0.720	49
6.00	2.654	0.809	45
7.00	2.934	0.894	42
8.00	3.204	0.977	39

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