

RG316 LSFH, 50 Ohm, 3 GHz, 105°C, ø2.54 mm, RADOX®jacket, ENVIROFLEX_316-03

Properties

- Halogen free alternative to RG cables
- Ozone, UV and weathering resistance
- UL AWM style 3651



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, 99%	1.99 mm
Jacket	RADOX	RAL 9005 - bk	2.54 mm +/- 0.07 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 3 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	70.7 %
Signal delay	4.71 ns/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. 16 g/m
Static bending radius	≥ 5 mm
Repeated bending radius	25 mm (bendings, up to 3000)
Dynamic bending radius	≤ 30 mm

Environmental data	
Operation temperature	-40 °C ... 105 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	UL 1581 § 1100
Fire characteristics	free of halogenes, acc. standard IEC 60754
Ageing test	MIL-C-17 § 4.8.16

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Environmental data	
Cold bend test	MIL-C-17 § 4.8.19
UV resistance	IEC 60068-2-5, proc. C

Suitable connectors	
Cable group	U2

Ordering information		
Item number	Item description	Available as assembly only
84027942	ENVIROFLEX_316-03	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 =	0.7264	b coefficient typical =	0.17
fmax =	3	P at 1 GHz =	90
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	0.247	0.075	285
0.20	0.359	0.109	201
0.30	0.449	0.137	164
0.40	0.527	0.161	142
0.60	0.665	0.203	116
0.80	0.786	0.239	101
1.00	0.896	0.273	90
1.20	1.000	0.305	82
1.40	1.097	0.335	76
1.60	1.191	0.363	71
1.80	1.281	0.390	67
2.00	1.367	0.417	64
2.50	1.574	0.480	57
3.00	1.768	0.539	52

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