

RG316D LSFH type, 50 Ohm, 6 GHz, 85°C, ø3.16 mm, LSFH jacket

Enviroflex_B316_D

Properties

- Halogen free alternative to RG cables
- Low smoke
- Ozone, UV and weathering resistance



Construction			
Component	Material	Detail	Diameter
Centre conductor	Steel, Copper + Silver plated	Strand-07	0.54 mm
Dielectric	SPE (Foamed Polyethylene)		1.5 mm
Outer conductor	Copper, Tin plated	Braid, 95%	2 mm
Outer conductor	Copper, Tin plated	Braid, 85%	2.4 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	3.16 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 6 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	71 %
Signal delay	4.7 ns/m
Screening effectiveness	60 dB at frequency 1 GHz ... 6GHz
Insulation resistance	10000000 MΩ*m
Inner conductor resistance	269 Ω/km
Operating Voltage (at sea level)	≤ 1.3 kVrms
Test voltage (50 Hz/1 min)	≤ 3 kVrms

Mechanical data	
Weight	approx. 19 g/m
Static bending radius	≥ 5 mm
Repeated bending radius	30 mm
Dynamic bending radius	< 30 mm

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Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-1
Fire characteristics	free of halogenes
Cold bend test	MIL-C-17 § 4.8.19
Thermal stress test	IEC 61196-1 § 10.9

Suitable connectors	
Cable group	U4

Ordering information		
Item number	Item description	Available as assembly only
85087103	ENVIROFLEX_B316_D	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 =	0.7648	b coefficient typical =	0.1301
fmax =	6	P at 1 GHz =	70
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	221
0.20	0.368	0.112	157
0.40	0.536	0.163	111
0.60	0.670	0.204	90
1.00	0.895	0.273	70
1.50	1.132	0.345	57
2.00	1.342	0.409	49
6.00	2.654	0.809	29

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