Data Sheet

Flexible RF cable
Enviroflex_B316_D

Description

Enviroflex: LSFH alternatives to RG cables

RG316D/RD316 LSFH basic type, 50 Ohm, 6 GHz, 85°C, ø3.16 mm, LSFH jacket, Flame retardant

Technical Data

Construction

	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

Print: HUBER+SUHNER ENVIROFLEX B316 D 50 OHM (production order number)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		6 GHz
Capacitance		94.5 pF/m
Velocity of signal propagation		71 %
Signal delay		4.7 ns/m
Screening effectiveness		≥ 60 dB (up to 6 GHz)
Operating voltage		≤ 1.3 kV_{rms} (at sea level)
Test voltage		3 kV_{rms} (50 Hz/1 min)

Mechanical Data

Weight		1.9 kg/100 m
Min. bending radius	static	5 mm
	repeated (for ≤ 30000 bendings)	30 mm
	dynamic	30 mm

Environmental Data

Temperature range	-40 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Cold bend test	MIL-C-17 § 4.8.19
Thermal stress test	IEC 61196-1 § 10.9
Flame propagation test	IEC 60332-1,
Halogen free	Yes
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant

Additional Information

Ordering Information

Order as	Enviroflex_B316_D

Remarks

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

Suitable Connectors

Cable group	U4 2 mm / 50 Ohm

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Matrix typical Attenuation [formula: (a*f^0.5 + b*f)] and maximum Power CW [formula: (p/f^0.5)]
Coefficients:

a =	0.7648	b =	0.1301	f_{max} =	6	P at 1GHz =	70

Frequency	Nom. attenuation	Nom. attenuation	Max. CW power
(GHz)	(dB / m)	(dB / ft)	(W)
	sea level 25° C ambient temperature	sea level 25° C ambient temperature	sea level 40° C ambient temperature
0,3	0,46	0,140	128
0,6	0,67	0,204	90
0,9	0,84	0,257	74
1,2	0,99	0,303	64
1,5	1,13	0,345	57
1,8	1,26	0,384	52
2,1	1,38	0,421	48
2,4	1,5	0,456	45
2,7	1,61	0,490	43
3,0	1,71	0,523	40
3,3	1,82	0,554	39
3,6	1,92	0,585	37
3,9	2,02	0,615	35
4,2	2,11	0,644	34
4,5	2,21	0,673	33
4,8	2,3	0,701	32
5,1	2,39	0,729	31
5,4	2,48	0,756	30
5,7	2,57	0,783	29
6,0	2,65	0,809	29