

RG400 LSFH, 50 Ohm, 6 GHz, 105°C, RADOX® jacket

ENVIROFLEX_400-01

Properties

- Ozone, UV and weathering resistance
- UL AWM style 3651
- 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	RAL 9005 - bk	4.97 mm - 0.1 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 6 GHz
Capacitance	94 pF/m
Velocity of signal propagation	70.3 %
Signal delay	4.74 ns/m
Screening effectiveness	70 dB at frequency 0.001 GHz ... 5GHz
Insulation resistance	10000000 MΩ*m
Inner conductor resistance	29.45 Ω/km
Outer conductor resistance	7.6 Ω/km
Operating Voltage (at sea level)	≤ 2.5 kVrms
Voltage Rating UL	300 V
Phase vs temperature	10000 ppm within the temperature range -40 ... 100 °C
Phase vs bending	0.5 °/GHz
Test voltage (50 Hz/1 min)	≤ 5 kVrms

Mechanical data	
Weight	approx. 60 g/m
Static bending radius	≥ 10 mm
Repeated bending radius	40 mm
Dynamic bending radius	< 40 mm

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Mechanical data	
Abrasion test	MIL-T-81490 - §4.7.19 - prod. II - modified

Environmental data	
Operation temperature	-40 °C ... 105 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-1
	UL 1581 § 1100
	IEC 60332-2
Fire characteristics	free of halogenes, acc. standard IEC 60754
Smoke test	DIN EN 50268-2
Ageing test	MIL-C-17 § 4.8.16
Cold bend test	MIL-C-17 § 4.8.19
UV resistance	IEC 60068-2-5, proc. C
Thermal stress test	IEC 61196-1 § 10.9

Material compliance			
Item number	Directive / Regulation	Rating	Exemptions / Details
84008746	RoHS 2011/65/EU and (EU) 2015/863	Compliant without exemption	

Suitable connectors	
Cable group	U11

Ordering information		
Item number	Item description	Available as assembly only
84008746	ENVIROFLEX_400-01	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

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Power Matrix			
5.00	1.609	0.490	101
6.00	1.837	0.560	92

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