

RG400 LSFH, 50 Ohm, 6 GHz, 105°C, ø5 mm, RADOX® jacket

ENVIROFLEX_400

Properties

- Ozone, UV and weathering resistance
- UL AWM style 3651
- CPR qualified



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	black/bl line	5 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 ... 6GHz
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
CPR class	Eca
Flame propagation standard	EN 60332-1-2
	UL 1581 § 1100
	IEC 60332-1
Fire characteristics	free of halogenes, acc. standard IEC 60754
Smoke test	EN 61034-2
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
Toxicity test	NF X 70-100

Material compliance			
Item number	Directive / Regulation	Rating	Exemptions / Details
22512280	RoHS 2011/65/EU and (EU) 2015/863	Compliant without exemption	

Additional Information
Railway certificates discontinued by end of 2017. Replacement type for railway: RADOX_RF_400.

Suitable connectors	
Cable group	U11

Ordering information		
Item number	Item description	Available as assembly only
22512280	ENVIROFLEX_400	No

Power Matrix			
Calculation: typical Attenuation [formula: (a*f^0.5 + b*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

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Power Matrix			
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
5.00	1.609	0.490	101
6.00	1.837	0.560	92

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