

RG179 LSFH, 75 Ohm, 3 GHz, 105°C, ø2.54 mm, RADOX® jacket

ENVIROFLEX_179

Properties

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



Construction			
Component	Material	Detail	Diameter
Centre conductor	Steel, Copper + Silver plated	Strand-07	0.305 mm
Dielectric	SPEX (Crosslink Foam PE)		1.55 mm
Outer conductor	Copper, Silver plated	Braid, 94%	2 mm
Jacket	RADOX	RAL 5015 - bl	2.54 mm +/- 0.07 mm

Electrical data	
Impedance	75 Ω +/- 3Ω
Operating frequency	≤ 3 GHz
Capacitance	63 pF/m
Velocity of signal propagation	70 %
Signal delay	4.78 ns/m
Screening effectiveness	40 dB at frequency 0.01 GHz ... 1GHz
Insulation resistance	10000000 MΩ*m
Inner conductor resistance	747 Ω/km
Outer conductor resistance	37 Ω/km
Operating Voltage (at sea level)	≤ 1 kVrms
Voltage Rating UL	300 V
Phase vs temperature	8400 ppm within the temperature range -40 ... 100 °C
Phase vs bending	0.7 °/GHz
Test voltage (50 Hz/1 min)	≤ 2 kVrms

Mechanical data	
Weight	approx. 11.1 g/m
Static bending radius	≥ 5 mm
Repeated bending radius	25 mm (bendings, up to 50)

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Environmental data	
Operation temperature	-40 °C ... 105 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	UL 1581 § 1100
	IEC 60332-2
	EN 60332-1-2
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
Solar radiation	IEC 60068-2-5, proc. C

Material compliance			
Item number	Directive / Regulation	Rating	Exemptions / Details
23019104	RoHS 2011/65/EU and (EU) 2015/863	Compliant without exemption	
	REACH 1907/2006 Article 33 SVHC	Free of SVHC >0,1%	

Additional Information
Railway certificates discontinued by end of 2017. Replacement type for railway: RADOX_RF_179.

Suitable connectors	
Cable group	U5

Ordering information		
Item number	Item description	Available as assembly only
23019104	ENVIROFLEX_179	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 =	0.8288	b coefficient typical =	0.0725
fmax =	3	P at 1 GHz =	45
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	0.269	0.082	142
0.20	0.385	0.117	101
0.30	0.476	0.145	82
0.40	0.553	0.169	71
0.60	0.685	0.209	58
0.80	0.799	0.244	50
1.00	0.901	0.275	45
1.20	0.995	0.303	41
1.40	1.082	0.330	38
1.60	1.164	0.355	36
1.80	1.242	0.379	34
2.00	1.317	0.401	32
2.50	1.492	0.455	28

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Power Matrix			
3.00	1.653	0.504	26

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