

RG393 LSFH, 50 Ohm, 6 GHz, 105°C, ø10.05 mm, RADOX® jacket

ENVIROFLEX_393

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	Copper, Silver plated	Strand-07	2.46 mm
Dielectric	SPEX (Crosslink Foam PE)		7.25 mm
Outer conductor	Copper, Silver plated	Braid, 92%	8 mm
Outer conductor	Copper, Silver plated	Braid, 99%	8.68 mm
Jacket	RADOX	black/bl line	10.05 mm +/- 0.15 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 6 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	70.7 %
Signal delay	4.71 ns/m
Screening effectiveness	78 dB at frequency 0.001 GHz ... 3GHz
Insulation resistance	10000000 MΩ*m
Inner conductor resistance	4.75 Ω/km
Operating Voltage (at sea level)	≤ 5 kVrms
Voltage Rating UL	300 V
Phase vs temperature	2800 ppm at temperature -40 ... 100°C
Phase vs bending	1.6 °/GHz
Test voltage (50 Hz/1 min)	≤ 10 kVrms

Mechanical data	
Weight	approx. 180 g/m
Static bending radius	≥ 30 mm
Repeated bending radius	100 mm
Abrasion test	MIL-T-81490 - §4.7.19 - prod. II - modified

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Environmental data	
Operation temperature	-40 °C ... 105 °C
Installation temperature	-20 °C ... 60°C
Flame propagation standard	IEC 60332-2
	UL 1581 § 1080 (VW-1)
	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
Thermal stress test	IEC 61196-1 § 10.9

Additional Information

Railway certificates discontinued by end of 2017. No replacement type.

Suitable connectors

Cable group	U33
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Ordering information

Item number	Item description	Available as assembly only
22512282	ENVIROFLEX_393	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 =	0.1704	b coefficient typical =	0.1153
fmax =	6.0	P at 1 GHz =	495.0

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	0.065	0.020	1565
0.20	0.099	0.030	1107
0.30	0.128	0.039	904
0.40	0.154	0.047	783
0.60	0.201	0.061	639
0.80	0.245	0.075	553
1.00	0.286	0.087	495
1.20	0.325	0.099	452
1.40	0.363	0.111	418
1.60	0.400	0.122	391
1.80	0.436	0.133	369
2.00	0.472	0.144	350
2.50	0.558	0.170	313
3.00	0.641	0.195	286
3.50	0.722	0.220	265
4.00	0.802	0.244	248
5.00	0.958	0.292	221
6.00	1.109	0.338	202

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