Data Sheet

Flexible RF cable
ENVIROFLEX_179

Description

Enviroflex: LSFH alternatives to RG cables

RG179 LSFH, 75 Ohm, 3 GHz, 105°C, ø2.54 mm, RADOX® jacket, Flame retardant, UL AWM style 3651

Technical Data

Construction

	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

Print: HUBER+SUHNER ENVIROFLEX 179 75 Ohm (UL logo) AWM Style 3651 (PA no.)

Electrical Data

Impedance		75 Ω +/- 3
Operating Frequency		3 GHz
Capacitance		63 pF/m
Velocity of signal propagation		70 %
Signal delay		4.78 ns/m
Screening effectiveness		≥ 40 dB (up to 1 GHz)
Operating voltage		≤ 1 kV_{rms} (at sea level)
Test voltage		2 kV_{rms} (50 Hz/1 min)
Voltage Rating UL		300 V
Phase vs Temperature	-40°C... + 100°C	8400 ppm
Phase vs Bending		0.7 °/GHz

Mechanical Data

Weight		1.11 kg/100 m
Min. bending radius	static	5 mm
	repeated (for ≤ 50 bendings)	25 mm

Environmental Data

Temperature range	-40 °C ... +105 °C
Temperature rating UL	105 °C
Installation temperature	-20 °C... +60 °C
Cold bend test	MIL-C-17 § 4.8.19
Ageing test	MIL-C-17 § 4.8.16
Solar radiation test	IEC 60068-2-5, proc. C
Uv resistance test	IEC 60068-2-5, proc. C
Flame propagation test	UL 1581 § 1100, IEC 60332-2, EN 60332-1-2
Smoke density test	EN 61034-2
Halogen test	IEC 60754
Halogen free	Yes
2011/65/EU (RoHS)	compliant
2006/1907/EC (REACH)	compliant
2000/53/EC (ELV)	compliant
2012/19/EU (WEEE)	no special marking needed

Additional Information

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

Ordering Information

Order as	ENVIROFLEX_179

Remarks

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

Suitable Connectors

Cable group	U5 2 mm / 75 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 = 0.8288	b = 0.0725	f_{max} = 3	P at 1GHz = 45

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
0,15	0,33	0,101	116
0,3	0,48	0,145	82
0,45	0,59	0,179	67
0,6	0,69	0,209	58
0,75	0,77	0,235	52
0,9	0,85	0,260	47
1,05	0,93	0,282	44
1,2	0,99	0,303	41
1,35	1,06	0,323	39
1,5	1,12	0,343	37
1,65	1,18	0,361	35
1,8	1,24	0,379	34
1,95	1,3	0,396	32
2,1	1,35	0,412	31
2,25	1,41	0,429	30
2,4	1,46	0,444	29
2,55	1,51	0,460	28
2,7	1,56	0,475	27
2,85	1,61	0,489	27
3,0	1,65	0,504	26