Data Sheet

Flexible RF cable
ENVIROFLEX_142

Description

Enviroflex: LSFH alternatives to RG cables

RG142 LSFH, 50 Ohm, 6 GHz, 105°C, ø5 mm, RADOX® jacket, Flame retardant, UL AWM style 3651



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Wire	0.95 mm
Dielectric	SPEX (Crosslink Foam PE)		2.95 mm
Outer conductor	Copper, Silver plated	Braid, 97%	3.58 mm
Outer conductor	Copper, Silver plated	Braid, 95 %	4.16 mm
Jacket	RADOX	black/bl line	5 mm +/- 0.1

Print: HUBER+SUHNER ENVIROFLEX 142 50 Ohm (UL logo) AWM Style 3651 (PA no.)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		6 GHz
Capacitance		94.5 pF/m
Velocity of signal propagation		70.9 %
Signal delay		4.7 ns/m
Screening effectiveness		≥ 75 dB (up to 5 GHz)
Operating voltage		≤ 2.5 kV_{rms} (at sea level)
Test voltage		5 kV_{rms} (50 Hz/1 min)
Voltage Rating UL		300 V
Phase vs Temperature	-40°C... + 100°C	9000 ppm

Mechanical Data

Weight		6 kg/100 m
Min. bending radius	static	30 mm
	repeated (for ≤ 3000 bendings)	50 mm
Abrasion test	MIL-T-81490 - §4.7.19 - prod. II - modified	

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
Thermal stress test	IEC 61196-1 § 10.9
Uv resistance test	IEC 60068-2-5, proc. C
Flame propagation test	EN 60332-1-2, UL 1581 § 1100, IEC 60332-2, EN 50305, 9.1.2
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_142.

Ordering Information

Order as	ENVIROFLEX_142

Remarks

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

Suitable Connectors

Cable group	U9 3 mm / 50 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 = 0.365	b = 0.142	f_{max} = 6	P at 1GHz = 225

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
0,3	0,24	0,074	411
0,6	0,37	0,112	290
0,9	0,47	0,144	237
1,2	0,57	0,174	205
1,5	0,66	0,201	184
1,8	0,75	0,227	168
2,1	0,83	0,252	155
2,4	0,91	0,276	145
2,7	0,98	0,300	137
3,0	1,06	0,323	130
3,3	1,13	0,345	124
3,6	1,2	0,367	119
3,9	1,27	0,388	114
4,2	1,34	0,410	110
4,5	1,41	0,431	106
4,8	1,48	0,451	103
5,1	1,55	0,472	100
5,4	1,61	0,492	97
5,7	1,68	0,512	94
6,0	1,75	0,532	92

Waiver: Fact and figures herein are for information only and do not represent any warranty of any kind.