

Flexible RF cable ENVIROFLEX_400

Description

Enviroflex: LSFH alternatives to RG cables

RG400 LSFH, 50 Ohm, 6 GHz, 105°C, ø5 mm, RADOX® jacket,
Flame retardant, UL AWM style 3651, CPR qualified



Technical Data

Construction

	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

Print: HUBER+SUHNER ENVIROFLEX 400 50 Ohm (UL logo) AWM Style 3651 Eca (PA no.)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		6 GHz
Capacitance		94 pF/m
Velocity of signal propagation		70.3 %
Signal delay		4.74 ns/m
Insulation resistance		≥ 1 x 10 ⁷ MΩm
Min. screening effectiveness		≥ 70 dB (up to 6 GHz)
Max. 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	10000 ppm
Phase vs Bending		0.5 °/GHz

Mechanical Data

Weight		6 kg/100 m
Min. bending radius	static	10 mm
	repeated (for ≤ 50 bendings)	40 mm
	dynamic	40 mm

Environmental Data

Temperature range	-40 °C... +105 °C
Temperature Rating UL	105 °C
Installation temperature	-20 °C... +60 °C
Flammability	EN 60332-1-2, UL 1581 § 1100, IEC 60332-1
Smoke density	EN 61034-2
Halogen test	IEC 60754
Uv resistance test	IEC 60068-2-5, proc. C
Toxic fume	NF X 70-100
Abraison test	MIL-T-81490 - §4.7.19 - prod. II - modified
Thermal stress test	IEC 61196-1 § 10.9
2011/65/EU (RoHS)	compliant
2011/305/EU (CPR)	compliant, Eca

Additional Information

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

Ordering Information

Order as ENVIROFLEX_400

Remarks

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

Suitable Connectors

Cable group U11 3 mm / 50 Ohm

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Matrix typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

Coefficients:

a = 0.402

b = 0.142

$f_{max} = 6$

P at 1GHz = 225

Frequency (GHz)	Nom. attenuation (dB / m) sea level 25° C ambient temperature	Nom. attenuation (dB / ft) sea level 25° C ambient temperature	Max. CW power (watt) sea level 40° C ambient temperature
0,3	0,26	0,080	411
0,6	0,4	0,121	290
0,9	0,51	0,155	237
1,2	0,61	0,186	205
1,5	0,71	0,215	184
1,8	0,79	0,242	168
2,1	0,88	0,268	155
2,4	0,96	0,294	145
2,7	1,04	0,318	137
3,0	1,12	0,342	130
3,3	1,2	0,365	124
3,6	1,27	0,388	119
3,9	1,35	0,411	114
4,2	1,42	0,433	110
4,5	1,49	0,455	106
4,8	1,56	0,476	103
5,1	1,63	0,497	100
5,4	1,7	0,518	97
5,7	1,77	0,539	94
6,0	1,84	0,560	92