Data Sheet

Coaxial Cable
ENVIROFLEX_142

Description

PE Foam cross-linked - 50 Ohm - double screen (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
Insulation resistance		≥ 1 x 10^7 MΩm
Min. screening effectiveness		≥ 75 dB (up to 5 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	9000 ppm

Mechanical Data

Weight		6 kg/100 m
Min. bending radius	static	30 mm
	repeated (for ≤ 50 bendings)	50 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 60332-2
Smoke density	EN 61034-2
Halogen test	IEC 60754
Uv resistance test	IEC 60068-2-5, proc. C
Abraison test	MIL-T-81490 - §4.7.19 - prod. II - modified
Thermal stress test	IEC 61196-1 § 10.9
2011/95/EC (RoHS)	compliant

Additional Information

DIN 5510-2 compliant
EN 45545 compliant hazard level for indoor cables: HL3
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)	(watt)
	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