Data Sheet

Coaxial Cable
S_10172_B-11

Description

PE Foam - 50 Ohm - high screened

Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Aluminium / Copper	Wire	3.8 mm
Dielectric	SPE (Foamed Polyethylene)		9.9 mm
Outer conductor	Copper	longitudinal Foil, 100%	10 mm
Outer conductor	Copper	Braid, 80 %	10.8 mm
Jacket	PE (Polyethylene)	RAL 9005 - bk	12.9 mm +/- 0.2

Print: HUBER+SUHNER S 10172 B-11 50 Ohm (PA no.)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		7.5 GHz
Capacitance		77 pF/m
Velocity of signal propagation		87 %
Signal delay		3.85 ns/m
Insulation resistance		≥ 1 x 10^8 MΩm
Min. screening effectiveness		≥ 90 dB (up to 7.5 GHz)
Max. operating voltage		≤ 1.5 kV_{rms} (at sea level)
Test voltage		3 kV_{rms} (50 Hz/1 min)
Phase vs Temperature	-40°C... + 70°C	3000 ppm
Phase vs Bending		2 °/GHz

Mechanical Data

Weight		15 kg/100 m
Min. bending radius	static	100 mm
	repeated (for ≤ 50 bendings)	200 mm

Environmental Data

Temperature range	-40 °C... +85 °C
Installation temperature	-20 °C... +60 °C
Halogen test	IEC 60754
2011/95/EC (RoHS)	compliant

Additional Information

Ordering Information

Order as	S_10172_B-11

Remarks

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

Suitable Connectors

Cable group	S39 10 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 =	0.0826	b =	0.0129	f_{max} =	7.5	P at 1GHz =	700

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
0.38	0.06	0.017	1136
0.75	0.08	0.025	808
1.12	0.1	0.031	661
1.5	0.12	0.037	572
1.88	0.14	0.042	511
2.25	0.15	0.047	467
2.62	0.17	0.051	432
3.0	0.18	0.055	404
3.38	0.2	0.060	381
3.75	0.21	0.063	361
4.12	0.22	0.067	345
4.5	0.23	0.071	330
4.88	0.25	0.075	317
5.25	0.26	0.078	306
5.62	0.27	0.082	295
6.0	0.28	0.085	286
6.38	0.29	0.089	277
6.75	0.3	0.092	269
7.12	0.31	0.095	262
7.5	0.32	0.098	256