

Coaxial Cable SUCOFEED_1_1/4_FR

Description

Copper outer conductor, 50 Ohm, 3.5 GHz, 80°C, ø39.5 mm,
LSFH jacket, Flame retardant



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper	Tube	typ. 13.1 mm
Dielectric	SPE (Foamed Polyethylene)		typ. 32.4 mm
Outer conductor	Copper	Tube, corrugated100%	typ. 35.8 mm
Jacket	LSFH (modified polyethylene)	RAL 9011 - graphite black	39.5 mm +/- 0.6

Print: HUBER+SUHNER_SUCOFEED_1_1/4_FR_#batch-number#_#metric-length#

Electrical Data

Impedance	50 Ω +/- 1
Operating Frequency	≤ 3.5 GHz
Capacitance	typ. 76.5 pF/m
Inductance	typ. 0.2 μH/m
Velocity of signal propagation	typ. 88 %
Signal delay	typ. 3.8 ns/m
Insulation resistance	≥ 5 x 10 ⁶ MΩm
Screening effectiveness	≥ 120 dB
Operating voltage	≤ 4.2 kVrms (at sea level)
Test voltage	8 kVrms (50 Hz/1 min) _{rms}
Outer conductor resistance DC	≤ 0.62 Ω/km
Inner conductor resistance DC	≤ 0.76 Ω/km

Mechanical Data

Weight	≤ 110 kg/100 m
Bending Radius	static
Bending Radius	repeated (for ≤ 15 bendings)
Tensile strength	≥ 200 mm
Bending force moment	≥ 380 mm
	≤ 1700 N
	≤ 90 Nm

Environmental Data

Temperature range	-40 °C... +80 °C
Installation temperature	-20 °C... +60 °C
Flammability	IEC 60332-1, IEC 60332-3 (A),
Smoke density	IEC 61034
Halogen test	IEC 60754-2
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant

Additional Information

Remarks

(For details contact your nearest HUBER+SUHNER partner)

Suitable Connectors

Cable group	M32 32 mm / 50 Ohm
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Suitable Tools

Cable tool	74_Z-0-32-14
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Suitable Grounding Kit

Cable grounding kit	9076.99.N114 9076.99.P114
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Coaxial Cable

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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 = 0.024840854 typ.

b = 0.00459146 typ.

f_{max.} = 3.5

P ≤ at 1GHz = 3320

Frequency (GHz)	Nom. attenuation (dB / 100 m)	Nom. attenuation (dB / 100 ft)	Max. CW power (watt)
	sea level 20° C ambient temperature	sea level 20° C ambient temperature	sea level 40° C ambient temperature
0,100	0,83	0,25	10499
0,150	1,03	0,31	8572
0,200	1,20	0,37	7424
0,400	1,75	0,53	5249
0,450	1,87	0,57	4949
0,500	1,99	0,61	4695
0,700	2,40	0,73	3968
0,800	2,59	0,79	3712
0,900	2,77	0,84	3500
1,000	2,94	0,90	3320
1,500	3,73	1,14	2711
1,700	4,02	1,23	2546
1,800	4,16	1,27	2475
2,000	4,43	1,35	2348
2,200	4,69	1,43	2238
2,500	5,08	1,55	2100
2,800	5,44	1,66	1984
3,300	6,03	1,84	1828
3,500	6,25	1,91	1775

Matrix typical Return Loss

Frequency Range (MHz)	Frequency Range (MHz)	Frequency Range (MHz)	Frequency Range (MHz)
380 to 470	806 to 960	1710 to 2200	5 to 3000
typ. 28.5 dB	typ. 26.9 dB	typ. 25.6 dB	typ. 20 dB