Data Sheet

Flexible RF cable
SPUMA_400-FR-75

Description

Spuma: Flexible, low-loss RF cables (LMR* alternatives)

75 Ohm, 3 GHz, 85°C, ø10.25 mm, LSFH jacket, Flame retardant, Railway qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper	Wire	1.65 mm
Dielectric	SPE (Foamed Polyethylene)		7.24 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	7.4 mm
Outer conductor	Copper, Tin plated	Braid, 78 %	8.15 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	10.25 mm +/- 0.1

Print: HUBER+SUHNER SPUMA 400-FR-75 75 Ohm (PA no.)

Electrical Data

Impedance		75 Ω +/- 3
Operating Frequency		3 GHz
Capacitance		53 pF/m
Velocity of signal propagation		84 %
Signal delay		3.9 ns/m
Screening effectiveness		≥ 90 dB (up to 3 GHz)
Operating voltage		≤ 1.6 kV_{rms} (at sea level)
Test voltage		3 kV_{rms} (50 Hz/1 min)

Mechanical Data

Weight		12 kg/100 m
Min. bending radius	static	25 mm
	repeated	100 mm

Environmental Data

Temperature range	-40 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Uv resistance test	ISO 4892-2A
Flame propagation test	EN 60332-1-2, IEC 60332-3-25
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

EN 45545-2 compliant hazard level for indoor cables: HL3 NFPA-130 compliant An operating temperature of -55°C is feasible for static applications. *) LMR is a registered trademark of Times Microwave Inc.

Ordering Information

Order as	SPUMA_400-FR-75

Remarks

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

Suitable Connectors

Cable group	X33 7 mm / 75 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 =	0.119	b =	0.015	f_{max} =	3	P at 1GHz =	400

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
0,15	0,05	0,015	1033
0,3	0,07	0,021	730
0,45	0,09	0,026	596
0,6	0,1	0,031	516
0,75	0,11	0,035	462
0,9	0,13	0,039	422
1,05	0,14	0,042	390
1,2	0,15	0,045	365
1,35	0,16	0,048	344
1,5	0,17	0,051	327
1,65	0,18	0,054	311
1,8	0,19	0,057	298
1,95	0,2	0,060	286
2,1	0,2	0,062	276
2,25	0,21	0,065	267
2,4	0,22	0,067	258
2,55	0,23	0,070	250
2,7	0,24	0,072	243
2,85	0,24	0,074	237
3,0	0,25	0,077	231

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