

Flexible RF cable

SX_04172_B-60 Item: 84026748

Description

SX: Low loss RF cables with cross-linked foam PE dielectrics

50 Ohm, 8 GHz, 105°C, ø5.5 mm, RADOX® jacket, Flame retardant, UL AWM style 1354, Railway qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Wire	1.4 mm
Dielectric	SPEX (Crosslink Foam PE)		3.8 mm
Outer conductor	Aluminum / PES	longitudinal Foil	4.2 mm
	Copper, Tin plated	Braid, 86 %	4.6 mm
Jacket	RADOX	RAL 9005 - bk	5.5 mm +/- 0.1

Print: HUBER+SUHNER SX04172B-60 50Ohm (UL logo) AWM Style1354 IEC60332-3-22 (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	8 GHz
Capacitance	80.3 pF/m
Velocity of signal propagation	83 %
Signal delay	4.01 ns/m
Screening effectiveness	≥ 80 dB (up to 2.2 GHz)
Operating voltage	≤ 0.7 kV _{rms} (at sea level)
Test voltage	1.4 kV _{rms} (50 Hz/1 min)
Voltage Rating UL	30 V

Mechanical Data

Weight	4.78 kg/100 m
Min. bending radius	static 25 mm 90 mm

Environmental Data

Temperature range	-40 °C ... +105 °C
Temperature rating UL	80 °C
Flame propagation test	EN 60332-1-2, IEC 60332-3-22, EN 50305, 9.1.2, EN 50266-2-2, NF C 32-070 C2, NF C 32-070 C1
Smoke density test	EN 61034-2
Toxicity test	NF X 70-100
Halogen test	IEC 60754
Halogen free	Yes
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/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.

Remarks

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

Suitable Connectors

Cable group	X9 4 mm / 50 Ohm
-------------	------------------

Flexible RF cable

SX_04172_B-60 Item: 84026748

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

Coefficients:

a = 0.2375

b = 0.0438

f_{max} = 8

P at 1GHz = 198

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
0,4	0,17	0,051	313
0,8	0,25	0,075	221
1,2	0,31	0,095	181
1,6	0,37	0,113	157
2,0	0,42	0,129	140
2,4	0,47	0,144	128
2,8	0,52	0,159	118
3,2	0,57	0,172	111
3,6	0,61	0,185	104
4,0	0,65	0,198	99
4,4	0,69	0,211	94
4,8	0,73	0,223	90
5,2	0,77	0,234	87
5,6	0,81	0,246	84
6,0	0,84	0,257	81
6,4	0,88	0,269	78
6,8	0,92	0,280	76
7,2	0,95	0,290	74
7,6	0,99	0,301	72
8,0	1,02	0,312	70