Data Sheet

HUBER+SUHNER

Flexible RF cable
RADOX_RF_59 Item: 85023729

Description

RADOX RF: Highly flame retardant LSFH alternatives to RG cables

RG59 LSFH, 75 Ohm, 1 GHz, 105°C, ø6.24 mm, RADOX® jacket, Flame retardant, Railway qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper, Tin plated	Strand-07	0.66 mm
Dielectric	PEX (Polyethylene cross-linked)		3.83 mm
Outer conductor	Copper, Tin plated	Braid, 94%	4.42 mm
Jacket	RADOX EM104	RAL 9005 - bk	6.24 mm +/- 0.06

Print: HUBER+SUHNER RADOX_RF_59 75 OHM (production order number)

Electrical Data

Impedance		75 Ω +/- 3
Operating Frequency		1 GHz
Capacitance		68 pF/m
Velocity of signal propagation		66.1 %
Signal delay		5.05 ns/m
Screening effectiveness		≥ 40 dB (up to 1 GHz)
Operating voltage		≤ 3 kV_{rms} (at sea level)
Test voltage		5 kV_{rms} (50 Hz/1 min)

Mechanical Data

Weight		5.5 kg/100 m
Min. bending radius	static	35 mm
	dynamic	60 mm

Environmental Data

Temperature range	-40 °C ... +105 °C
Installation temperature	-20 °C... +60 °C
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 - 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 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	U16 4 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 = 0.325	b = 0.163	f_{max} = 1	P at 1GHz = 93

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
0,05	0,08	0,025	416
0,1	0,12	0,036	294
0,15	0,15	0,046	240
0,2	0,18	0,054	208
0,25	0,2	0,062	186
0,3	0,23	0,069	170
0,35	0,25	0,076	157
0,4	0,27	0,083	147
0,45	0,29	0,089	139
0,5	0,31	0,095	132
0,55	0,33	0,101	125
0,6	0,35	0,107	120
0,65	0,37	0,112	115
0,7	0,39	0,118	111
0,75	0,4	0,123	107
0,8	0,42	0,128	104
0,85	0,44	0,134	101
0,9	0,46	0,139	98
0,95	0,47	0,144	95
1,0	0,49	0,149	93

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