

## Flexible RF cable RADOX\_RF\_400

### Description

RADOX RF: Highly flame retardant LSFH alternatives to RG cables

RG400 LSFH, 50 Ohm, 6 GHz, 105 °C, ø5.34 mm, RADOX® jacket, Flame retardant, Railway qualified



### Technical Data

#### Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Strand-19	1 mm
Dielectric	SPEX (Crosslink Foam PE)		2.98 mm
Outer conductor	Copper, Silver plated	Braid, 96%	3.61 mm
Outer conductor	Copper, Silver plated	Braid, 94 %	4.2 mm
Jacket	RADOX EM104	RAL 9005 - bk	5.34 mm +/- 0.06

Print: HUBER+SUHNER RADOX\_RF\_400 50 Ohm (PA no.)

#### Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	6 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	70.3 %
Signal delay	4.74 ns/m
Screening effectiveness	≥ 70 dB (up to 6 GHz)
Operating voltage	≤ 2.5 kV <sub>rms</sub> (at sea level)
Test voltage	5 kV <sub>rms</sub> (50 Hz/1 min)

#### Mechanical Data

Weight		5.6 kg/100 m
Min. bending radius	static	10 mm
	repeated (for ≤ 30000 bendings)	40 mm
	dynamic	40 mm

#### Environmental Data

Temperature range	-40 °C ... +105 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	EN 60332-1-2, EN 50305, 9.1.2, IEC 60332-3-24
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 compliant Hazard level for indoor cables: HL3 NFPA-130 compliant An operating temperature of -55°C is feasible for static applications.

#### Ordering Information

Order as RADOX\_RF\_400

#### Remarks

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

#### Suitable Connectors

Cable group U41 3 mm / 50 Ohm

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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 = 0.402

b = 0.142

$f_{\max} = 6$

P at 1GHz = 225

Frequency (GHz)	Nom. attenuation (dB / m) sea level 25° C ambient temperature	Nom. attenuation (dB / ft) sea level 25° C ambient temperature	Max. CW power (W) sea level 40° C ambient temperature
0,3	0,26	0,080	411
0,6	0,4	0,121	290
0,9	0,51	0,155	237
1,2	0,61	0,186	205
1,5	0,71	0,215	184
1,8	0,79	0,242	168
2,1	0,88	0,268	155
2,4	0,96	0,294	145
2,7	1,04	0,318	137
3,0	1,12	0,342	130
3,3	1,2	0,365	124
3,6	1,27	0,388	119
3,9	1,35	0,411	114
4,2	1,42	0,433	110
4,5	1,49	0,455	106
4,8	1,56	0,476	103
5,1	1,63	0,497	100
5,4	1,7	0,518	97
5,7	1,77	0,539	94
6,0	1,84	0,560	92