

## Flexible RF cable RADOX OFL RF 142

Item: 85182100

### Description

RADOX OFL RF: Oil&Gas flexible and lightweight RF cable, highly flame retardant

RG142 LSFH, 50 Ohm, 8 GHz, 105°C, ø5.34 mm, RADOX® jacket, Flame retardant, Oil&Gas qualified



### Technical Data

#### Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Wire	0.95 mm
Dielectric	PE foam, eBeam Crosslink		2.98 mm
Outer conductor	Copper, Silver plated	Braid, 97%	3.58 mm
Outer conductor	Copper, Silver plated	Braid, 95 %	4.18 mm
Jacket	RADOX EM104	RAL 9005 - bk	5.34 mm +/- 0.06

Print: HUBER+SUHNER RADOX OFL RF 142 50 Ohm (production order number)

#### Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	8 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	70.9 %
Signal delay	4.7 ns/m
Screening effectiveness	≥ 75 dB (up to 5 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		5.7 kg/100 m
Min. bending radius	static	30 mm
	repeated (for ≤ 3000 bendings)	50 mm

#### Environmental Data

Temperature range	-40 °C ... +105 °C
Installation temperature	-20 °C... +60 °C
Oil and mud resistance test	IEC 60092-360, NEK TS 606: 2016 (cat. a/b/c, cat. d on request) <sup>1</sup>
Halogen test	IEC 60754
Halogen free	Yes
Flame propagation (acc. construction)	EN 60332-1-2, EN 50305-9.1.2
Smoke density (acc. construction)	EN 61034-2
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

An operating temperature of -55°C is feasible for applications without mechanical loads.

#### Remarks

<sup>1</sup> Tested with BASEC (UK)

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

#### Suitable Connectors

Cable group U9 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 = 0.365

b = 0.142

$f_{\max} = 8$

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
0.4	0.29	0.088	356
0.8	0.44	0.134	252
1.2	0.57	0.174	205
1.6	0.69	0.210	178
2.0	0.8	0.244	159
2.4	0.91	0.276	145
2.8	1.01	0.307	134
3.2	1.11	0.337	126
3.6	1.2	0.367	119
4.0	1.3	0.396	113
4.4	1.39	0.424	107
4.8	1.48	0.451	103
5.2	1.57	0.479	99
5.6	1.66	0.506	95
6.0	1.75	0.532	92
6.4	1.83	0.558	89
6.8	1.92	0.584	86
7.2	2.0	0.610	84
7.6	2.09	0.636	82
8.0	2.17	0.661	80