

## Flexible RF cable RADOX OFL RF 316 D

Item: 85182099

### Description

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

RG316D/RD316 LSFH, 50 Ohm, 8 GHz, 105°C, ø3.2 mm,  
RADOX® jacket, Flame retardant, Oil&Gas qualified



### Technical Data

#### Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Strand-07	0.54 mm
Dielectric	PE foam, eBeam Crosslink		1.53 mm
Outer conductor	Copper, Silver plated	Braid, 96%	1.99 mm
Outer conductor	Copper, Silver plated	Braid, 90 %	2.44 mm
Jacket	RADOX EM104	RAL 9005 - bk	3.2 mm +/- 0.1

Print: HUBER+SUHNER RADOX OFL RF 316 D 50 Ohm (production order number)

#### Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	8 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	70.1 %
Signal delay	4.72 ns/m
Screening effectiveness	≥ 70 dB (up to 6 GHz)
Operating voltage	≤ 1.5 kV <sub>rms</sub> (at sea level)
Test voltage	3 kV <sub>rms</sub> (50 Hz/1 min)
Voltage Rating UL	300 V

#### Mechanical Data

Weight		2 kg/100 m
Min. bending radius	static	5 mm
	repeated (for ≤ 50 bendings)	30 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 U4 2 mm / 50 Ohm

## Flexible RF cable RADOX OFL RF 316 D

Item: 85182099

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

Coefficients:

a = 0.7648

b = 0.1301

f<sub>max</sub> = 8

P at 1GHz = 110

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	0.54	0.163	174
0.8	0.79	0.240	123
1.2	0.99	0.303	100
1.6	1.18	0.358	87
2.0	1.34	0.409	78
2.4	1.5	0.456	71
2.8	1.64	0.501	66
3.2	1.78	0.544	61
3.6	1.92	0.585	58
4.0	2.05	0.625	55
4.4	2.18	0.663	52
4.8	2.3	0.701	50
5.2	2.42	0.738	48
5.6	2.54	0.774	46
6.0	2.65	0.809	45
6.4	2.77	0.843	43
6.8	2.88	0.877	42
7.2	2.99	0.911	41
7.6	3.1	0.944	40
8.0	3.2	0.977	39