

RADOX OFL - RG214 LSFH, 50 Ohm, 6 GHz, 105°C, ø11.1 mm, RADOX® jacket

RADOX OFL RF 214

Properties

- Flexible and lightweight
- Suitable for use in applications up to 6 GHz
- Flame retardant
- Oil and mud resistance
- Oil and gas qualified
- HUBER+SUHNER RADOX® jacket material



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Strand-07	2.25 mm
Dielectric	SPEX (Crosslink Foam PE)		7.28 mm
Outer conductor	Copper, Silver plated	Braid, 93%	8 mm
Outer conductor	Copper, Silver plated	Braid, 95%	8.6 mm
Jacket	RADOX EM104	RAL 9005 - bk	11.1 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 6 GHz
Capacitance	101.4 pF/m
Velocity of signal propagation	66 %
Signal delay	5.03 ns/m
Screening effectiveness	81 dB at frequency 0.01 GHz ... 6GHz
Insulation resistance	10000000 MΩ*m
Operating Voltage (at sea level)	≤ 5 kVrms
Test voltage (50 Hz/1 min)	≤ 10 kVrms

Mechanical data	
Weight	approx. 203 g/m
Static bending radius	≥ 50 mm
Repeated bending radius	110 mm (bendings, up to 50)

Environmental data	
Operation temperature	-40 °C ... 105 °C
Installation temperature	-20 °C ... 60 °C
Oil and mud resistance	IEC 60092-360 NEK TS 606: 2016 (cat. a/b/c, cat. d on request)*

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Environmental data	
Flame propagation standard	(acc. construction) EN 60332-1-2 (acc. construction) EN 50305, 9.1.2
Fire characteristics	free of halogenes, acc. standard IEC 60754
Smoke test	(acc. construction) EN 61034-2
UV resistance	ISO 4892-2A

Material compliance			
Item number	Directive / Regulation	Rating	Exemptions / Details
85182102	RoHS 2011/65/EU and (EU) 2015/863	Compliant without exemption	
	REACH 1907/2006 Article 33 SVHC	Free of SVHC >0,1%	

Additional Information

* Tested with BASEC (UK).

Flame propagation tested according to IEC 60079-1:2014 (Equipment protection by flameproof enclosures "d") with CCG A2F, gland size 0, part no. 054100, passed IIB/IIC gas test.

Suitable connectors	
Cable group	U43

Ordering information		
Item number	Item description	Available as assembly only
85182102	RADOX OFL RF 214	No

Power Matrix			
Calculation: typical Attenuation [formula: (a*f^0.5 + b*f)] and maximum Power CW [formula: (p/f^0.5)]			
a coefficient typical =	0.2203	b coefficient typical =	0.0874
fmax =	6	P at 1 GHz =	560
Frequency GHz	Nom. attenuation (dB/m)	Nom. attenuation (dB/ft)	CW power (W)
	sea level 25°C ambient temperature	sea level 25°C ambient temperature	sea level 40°C ambient temperature
0.10	0.078	0.024	1771
0.20	0.116	0.035	1252
0.30	0.147	0.045	1022
0.40	0.174	0.053	885
0.60	0.223	0.068	723
0.80	0.267	0.081	626
1.00	0.308	0.094	560
1.20	0.346	0.106	511
1.40	0.383	0.117	473
1.60	0.418	0.128	443
1.80	0.453	0.138	417
2.00	0.486	0.148	396
2.50	0.567	0.173	354
3.00	0.644	0.196	323
3.50	0.718	0.219	299
4.00	0.790	0.241	280
5.00	0.930	0.283	250

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Power Matrix			
6.00	1.064	0.324	229

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