DATA SHEET

RG400 LSFH, 50 Ohm, 6 GHz, 105°C, ø5 mm, RADOX® jacket

ENVIROFLEX_400

Properties

- - ozone, UV and weathering resistance
- UL AWM style 3651
- CPR qualified

Construction			
Component	**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	black/bl line	5 mm - 0.1 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 6 GHz
Capacitance	94 pF/m
Velocity of signal propagation	70.3 %
Signal delay	4.74 ns/m
Screening effectiveness	70 dB at frequency 0.001 GHz ... 6GHz
Insulation resistance	10000000 MΩ*m
Inner conductor resistance	29.45 Ω/km
Operating Voltage (at sea level)	≤ 2.5 kVrms
Voltage Rating UL	300 V
Phase vs temperature	10000 ppm at temperature -40 ... 100°C
Phaase vs bending	0.5 °/GHz
Test voltage (50 Hz/1 min)	≤ 5 kVrms

Mechanical data	
Weight	approx. 6 g/m
Static bending radius	≥ 10 mm
Repeated bending radius	40 mm
Dynamic bending radius	< 40 mm

RG400 LSFH, 50 Ohm, 6 GHz, 105°C, ø5 mm, RADOX® jacket

ENVIROFLEX_400

Mechanical data	
Abrasion test	MIL-T-81490 - §4.7.19 - prod. II - modified

Environmental data	
Operation temperature	-40 °C ... 105 °C
Installation temperature	-20 °C ... 60°C
CPR class	Eca
Flame propagation standard	EN 60332-1-2 UL 1581 § 1100 IEC 60332-1
Fire characteristics	free of halogenes, acc. standard IEC 60754
Smoke test	EN 61034-2
Ageing test	MIL-C-17 § 4.8.16
Cold bend test	MIL-C-17 § 4.8.19
UV resistance	IEC 60068-2-5, proc. C
Thermal stress test	IEC 61196-1 § 10.9
Toxicity test	NF X 70-100

Additional Information
Railway certificates discontinued by end of 2017. Replacement type for railway: RADOX_RF_400.

Suitable connectors	
Cable group	U11

Ordering information		
Item number	Item description	Available as assembly only
22512280	ENVIROFLEX_400	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 =	**0.402**	b coefficient typical =	**0.142**
fmax =	**6.0**	P at 1 GHz =	**225.0**
Frequency	**Nom. attenuation**	**Nom. attenuation**	**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
0.10	0.141	0.043	712
0.20	0.208	0.063	503
0.30	0.263	0.080	411
0.40	0.311	0.095	356
0.60	0.397	0.121	290
0.80	0.473	0.144	252
1.00	0.544	0.166	225
1.20	0.611	0.186	205
1.40	0.674	0.205	190
1.60	0.736	0.224	178
1.80	0.795	0.242	168
2.00	0.853	0.260	159
2.50	0.991	0.302	142
3.00	1.122	0.342	130
3.50	1.249	0.381	120

RG400 LSFH, 50 Ohm, 6 GHz, 105°C, ø5 mm, RADOX® jacket

ENVIROFLEX_400

Power Matrix			
4.00	1.372	0.418	112
5.00	1.609	0.490	101
6.00	1.837	0.560	92

DOCUMENT PIM-P1117 / Date of publication: 26.02.2024 / uncontrolled copy