

RG316D LSFH, 50 Ohm, 8 GHz, 105°C, ø3.16 mm, RADOX® jacket

ENVIROFLEX_316_D-AM

Properties

- Halogen free alternative to RG cables
- Ozone, UV and weathering resistance
- Bus qualified



Construction			
Component	Material	Detail	Diameter
Centre conductor	Steel, Copper + Silver plated	Strand-07	0.54 mm +/- 0.009 mm
Dielectric	SPEX (Crosslink Foam PE)		1.53 mm +/- 0.025 mm
Outer conductor	Copper, Silver plated	Braid, 96%	1.99 mm +/- 0.04 mm
Outer conductor	Copper, Silver plated	90%	2.44 mm +/- 0.06 mm
Jacket	RADOX	RAL 9005 - bk	3.16 mm +/- 0.08 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 8 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	70.1 %
Signal delay	4.72 ns/m
Screening effectiveness	70dB
Insulation resistance	10000000 MΩ*m
Inner conductor resistance	269 Ω/km
Outer conductor resistance	17 Ω/km
Operating Voltage (at sea level)	≤ 1.3 kVrms
Test voltage (50 Hz/1 min)	≤ 3 kVrms

Mechanical data	
Weight	approx. 21 g/m
Static bending radius	≥ 5 mm
Repeated bending radius	30 mm (bendings, up to 3000)
Dynamic bending radius	≥ 30 mm

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Environmental data			
Operation temperature		-40 °C ... 105 °C	
Installation temperature		-20 °C ... 60 °C	
Fire characteristics		free of halogenes, acc. standard IEC 60754	
Material compliance			
Item number	Directive / Regulation	Rating	Exemptions / Details
85070084	RoHS 2011/65/EU and (EU) 2015/863	Compliant without exemption	
	REACH 1907/2006 Article 33 SVHC	Free of SVHC >0,1%	
Additional Information			
ISO 6722-1 5.22 (UN ECE-R 118.01) compliant.			
Suitable connectors			
Cable group		U4	
Ordering information			
Item number	Item description		Available as assembly only
85070084	ENVIROFLEX_316_D-AM		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 =	0.7648	b coefficient typical =	0.1301
fmax =	8	P at 1 GHz =	110
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	0.255	0.078	348
0.20	0.368	0.112	246
0.30	0.458	0.140	201
0.40	0.536	0.163	174
0.60	0.670	0.204	142
0.80	0.788	0.240	123
1.00	0.895	0.273	110
1.20	0.994	0.303	100
1.40	1.087	0.331	93
1.60	1.176	0.358	87
1.80	1.260	0.384	82
2.00	1.342	0.409	78
2.50	1.535	0.468	70
3.00	1.715	0.523	64
3.50	1.886	0.575	59
4.00	2.050	0.625	55
5.00	2.361	0.720	49
6.00	2.654	0.809	45
7.00	2.934	0.894	42
8.00	3.204	0.977	39

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DOCUMENT PIM-P27710 / Date of publication: 28.11.2025 / uncontrolled copy