

RG316D/RD316, 50 Ohm, 6 GHz, 200°C, ø3 mm, FEP jacket

K_02252_D

Properties

- Custom alternative to RG_316
- Suitable for use in applications up to 6 GHz
- Extended temperature range
- double shielded for better RF screening effectiveness



Construction			
Component	Material	Detail	Diameter
Centre conductor	Steel, Copper + Silver plated	Strand-07	0.54 mm
Dielectric	PTFE (Polytetrafluoroethylene)		1.55 mm
Outer conductor	Copper, Silver plated	Braid, 96%	2 mm
Outer conductor	Copper, Silver plated	Braid, 91%	2.5 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 8015 - br	3 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 6 GHz
Capacitance	97 pF/m
Velocity of signal propagation	69 %
Signal delay	4.86 ns/m
Screening effectiveness	80 dB at frequency 0.05 GHz ... 6GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	235 Ω/km
Operating Voltage (at sea level)	≤ 0.85 kVrms
Test voltage (50 Hz/1 min)	≤ 1.7 kVrms

Mechanical data	
Weight	approx. 24 g/m
Static bending radius	≥ 18 mm
Repeated bending radius	30 mm
Dynamic bending radius	< 45 mm

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Environmental data	
Operation temperature	-65 °C ... 200 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-3
Fire characteristics	IEC 60332-1-2 contains halogene

Suitable connectors	
Cable group	U4

Ordering information		
Item number	Item description	Available as assembly only
22510218	K_02252_D	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 =	6	P at 1 GHz =	149
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
0.20	0.368	0.112	333
0.40	0.536	0.163	236
0.60	0.670	0.204	192
0.80	0.788	0.240	167
1.00	0.895	0.273	149
1.20	0.994	0.303	136
1.40	1.087	0.331	126
1.60	1.176	0.358	118
1.80	1.260	0.384	111
2.00	1.342	0.409	105
4.00	2.050	0.625	74
6.00	2.654	0.809	61

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DOCUMENT PIM-P1038 / Date of publication: 03.04.2024 / uncontrolled copy