

**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



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

<b>Electrical data</b>	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 6 GHz
Capacitance	97 pF
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 kV
Test voltage (50 Hz/1 min)	≤ 1.7 kV

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

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

K\_02252\_D

Environmental data	
Operation temperature	-65 °C ... 200°C
Installation temperature	-20 °C ... 60°C
Flame propagation standard	IEC 60332-3
Fire characteristics	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 =	<b>0.7648</b>	b coefficient typical =	<b>0.1301</b>
fmax =	<b>6.0</b>	P at 1 GHz =	<b>149.0</b>
<b>Frequency</b>	<b>Nom. attenuation</b>	<b>Nom. attenuation Max.</b>	<b>CW power</b>
<b>GHz</b>	<b>(dB/m)</b>	<b>(dB/ft)</b>	<b>(W)</b>
	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

HUBER+SUHNER is certified by ISO 9001, ISO 14001, ISO 45001, IATF 16949, AS/EN 9100 and ISO/TS 22163-IRIS. Waiver: Facts and figures herein are for information only and do not represent any warranty of any kind.  
DOCUMENT PIM-P1038 / Date of publication: 27.10.2023 / uncontrolled copy