Data Sheet

HUBER+SUHNER

Flexible RF cable
K_02252_D Item: 22510218

Description

K: RF cables with PTFE/FEP/PFA dielectrics

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

Technical Data

Construction

	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

Print: HUBER+SUHNER K 02252 D 50 Ohm (production order number)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		6 GHz
Capacitance		97 pF/m
Velocity of signal propagation		69 %
Signal delay		4.86 ns/m
Screening effectiveness		≥ 80 dB (up to 6 GHz)
Operating voltage		≤ 0.85 kV_{rms} (at sea level)
Test voltage		1.7 kV_{rms} (50 Hz/1 min)

Mechanical Data

Weight		2.4 kg/100 m
Min. bending radius	static	18 mm
		30 mm
	dynamic	45 mm

Environmental Data

Temperature range	-65 °C ... +200 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	IEC 60332-3,
Halogen free	No
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant
2000/53/EC (ELV)	compliant
2012/19/EU (WEEE)	no special marking needed

Additional Information

Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

Suitable Connectors

Cable group	U4 2 mm / 50 Ohm

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Matrix typical Attenuation [formula: (a*f^0.5 + b*f)] and maximum Power CW [formula: (p/f^0.5)]
Coefficients:

a =	0.7648	b =	0.1301	f_{max} =	6	P at 1GHz =	149

Frequency	Nom. attenuation	Nom. attenuation	Max. 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
0,3	0,46	0,140	272
0,6	0,67	0,204	192
0,9	0,84	0,257	157
1,2	0,99	0,303	136
1,5	1,13	0,345	122
1,8	1,26	0,384	111
2,1	1,38	0,421	103
2,4	1,5	0,456	96
2,7	1,61	0,490	91
3,0	1,71	0,523	86
3,3	1,82	0,554	82
3,6	1,92	0,585	79
3,9	2,02	0,615	75
4,2	2,11	0,644	73
4,5	2,21	0,673	70
4,8	2,3	0,701	68
5,1	2,39	0,729	66
5,4	2,48	0,756	64
5,7	2,57	0,783	62
6,0	2,65	0,809	61