

Flexible RF cable RG_316_/U

Description

RG: RG type RF cables

RG316, 50 Ohm, 3 GHz, 200°C, ø2.5 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, 95%	2 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 8015 - br	2.5 mm +/- 0.1

Print: HUBER+SUHNER RG 316 U 50 Ohm (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	3 GHz
Capacitance	97 pF/m
Velocity of signal propagation	69 %
Signal delay	4.86 ns/m
Screening effectiveness	≥ 38 dB (up to 1 GHz)
Operating voltage	≤ 1.5 kV _{rms} (at sea level)
Test voltage	3 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight		1.6 kg/100 m
Min. bending radius	static	15 mm
	dynamic	25 mm
		37.5 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

Additional Information

MIL reference: M17/113-RG316

Ordering Information

Order as RG_316_/U

Remarks

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

Suitable Connectors

Cable group U2 2 mm / 50 Ohm

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Matrix typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

Coefficients:

a = 0.7727

b = 0.0972

f_{max} = 3

P at 1GHz = 135

Frequency (GHz)	Nom. attenuation (dB / m) sea level 25° C ambient temperature	Nom. attenuation (dB / ft) sea level 25° C ambient temperature	Max. CW power (W) sea level 40° C ambient temperature
0,15	0,31	0,096	349
0,3	0,45	0,138	246
0,45	0,56	0,171	201
0,6	0,66	0,200	174
0,75	0,74	0,226	156
0,9	0,82	0,250	142
1,05	0,89	0,272	132
1,2	0,96	0,294	123
1,35	1,03	0,314	116
1,5	1,09	0,333	110
1,65	1,15	0,351	105
1,8	1,21	0,369	101
1,95	1,27	0,387	97
2,1	1,32	0,403	93
2,25	1,38	0,420	90
2,4	1,43	0,436	87
2,55	1,48	0,452	85
2,7	1,53	0,467	82
2,85	1,58	0,482	80
3,0	1,63	0,497	78