

# HUBER+SUHNER® DATA SHEET

## Coaxial Cable: RG\_316\_/U



### Description

PTFE - 50 Ohm - single screen

### Technical Data

#### Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Strand-07	0.54 mm
Dielectric	PTFE		1.55 mm
Outer conductor	Copper, Silver plated	Braid, 95 %	2 mm
Jacket	FEP	RAL 8015 - br	2.5 mm +/- 0.1
Print	HUBER+SUHNER RG 316 U 50 Ohm (PA no.)		

#### Electrical Data

Impedance	50 $\Omega$ +/- 2
Max. operating frequency	3 GHz
Capacitance	97 pF/m
Velocity of signal propagation	69 %
Signal delay	4.86 ns/m
Insulation resistance	$\geq 1 \times 10^8 \text{ M}\Omega\text{m}$
Min. screening effectiveness	>38 dB (up to 1 GHz)
Max. operating voltage	0.85 kV <sub>rms</sub> (at sea level)
Test voltage	1.7 kV <sub>rms</sub> (50 Hz/1 min)

#### Mechanical Data

Weight	1.6 kg/100 m
Min. bending radius	static 15 mm
	repeated (for max. 50 bendings)
	dynamic 25 mm
	37.5 mm

#### Environmental Data

Temperature range	-20 °C... + 60 °C	-65 °C... + 165 °C
Installation temperature		
Flammability	IEC 60332-3	
2002/95/EC (RoHS)	compliant	

#### Ordering Information

Order as RG\_316\_/U

#### Additional Information

##### Remarks

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

**Cable group** U2 2 mm / 50 Ohm

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

Coefficients:

a=	0.7727	b=	0.0972	f <sub>max.</sub> =	3	p <sub>at</sub> 1GHz =	135
	<b>Frequency</b>		<b>Nom. attenuation</b>		<b>Nom. attenuation</b>		<b>Max. CW power</b>
	<b>(GHz)</b>		<b>(dB / m)</b>		<b>(dB / ft)</b>		<b>(watt)</b>
			sea level 25° C ambient temperature		sea level 25° C ambient temperature		sea level 40° C ambient temperature
	0.2		0.37		0.113		302
	0.3		0.45		0.137		246
	0.5		0.59		0.180		191
	0.6		0.66		0.201		174
	0.8		0.77		0.235		151
	0.9		0.82		0.250		142
	1.1		0.92		0.280		129
	1.2		0.96		0.293		123
	1.4		1.05		0.320		114
	1.5		1.09		0.332		110
	1.7		1.17		0.357		104
	1.8		1.21		0.369		101
	2.0		1.29		0.393		95
	2.1		1.32		0.402		93
	2.3		1.40		0.427		89
	2.4		1.43		0.436		87
	2.6		1.50		0.457		84
	2.7		1.53		0.466		82
	2.9		1.60		0.488		79
	3.0		1.63		0.497		78

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

**WAIVER!**

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.



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