

Technical Specification

Cable Type: M17/113-RG-316 50 Ohm High-Temp Coaxial Cable (SRL)

Western Wire Part Number: WRG31601

Revision: 08/12 Date: 11 March 2013



Physical Description

Inner conductor	Stranded Silver Coated Copper-Clad Steel (SCCS), 7x0.17±0.002mm, 0.51±0.025mm OD.
Dielectric	Solid extruded PTFE, 1.52±0.10 mm OD.
Outer conductor	Single silver plated copper (SPC) braid, 16x5x0.10mm, 95.2% coverage, 1.92±0.10 mm OD. Lay: 17mm.
Outer jacket material	FEP.
Outer jacket thickness	0.27 mm nominal.
Outer Jacket color	Brown tint.
Overall Diameter	2.50±0.10 mm OD
Surface Marking	WESTERN WIRE WRG31601 M17/113-RG316 50 OHM COAXIAL CABLE CE 2011/65/EU (RoHS)
Note	1. Marking shall be clear and legible and will not be erased after 5 finger rubbing. 2. Marking may be done by a printed tape, made of flame-retardant material, inserted under the jacket. The jacket shall be transparent enough to permit the reading of marking tape through the jacket.

Mechanical Properties

Minimum Bend Radius	13 mm
Elongation of center conductor	10% min.
Tensile strength of inner conductor	345 N/mm ² min.
Inner conductor adhesion to core	8.8N min. 35N max.
Operating temperature	-55 to +200C
Cold bend	-55C
Flame test	VW-1
Total Weight	16 Kg/Km nom.

Electrical Properties & Transmission Properties @20C

Characteristic Impedance	50±2 Ohm
Operating frequency	3 GHz max.
Capacitance	95.8 pF/m nom. 105 pF/m max. @ 1 KHz
Velocity of Propagation	69.5% nom.
DC Resistance of inner conductor	275 Ohm/Km max. @ 20C
Continuous working voltage	900 V rms max. @ 20C
Insulation resistance	3 GOhm•Km min.
Dielectric strength	2000 V rms.
Spark test	2000 V rms.
Corona extinction	1200 V rms min.

Sweep tested properties from 50MHz to 3GHz @ 20C

Frequency MHz	Nom. Attenuation dB/100m	Max. Attenuation dB/100m	Min. SRL dB
50	18	24	30
100	26	34	30
400	53	68	23
1000	86	124	21
3000	153	190	17

This cable fully conforms to EU Directive 2011/65/EU (RoHS)