

Technical Specification

Cable Type: M17/172-00001 (RG-316) 50 Ohm High-Temp Coaxial Cable

Western Wire Part Number: WRG31600

Revision: 07/11 Date: 27 April 2011



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	White.
Overall Diameter	2.50±0.10 mm OD
Surface Marking	WESTERN WIRE WRG31601 M17/172-00001 (RG316) 50 OHM COAXIAL CABLE CE 2002/95/EC (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.
Storage Temperature	-50 to +120C
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.
Continuous working voltage	900 V rms max.
Insulation resistance	3 GOhm•Km min.
Dielectric strength	2000 V rms.
Spark test	2000 V rms.
Corona extinction	1200 V rms min.
SRL	NS
Attenuation	68.9 dB/100m max. @ 400MHz

This cable fully conforms to EU Directive 2002/95/EC (RoHS)