

### Technical Specification

Cable Type: MIL-DTL-17 M17/29-RG59 (96%) HFFR

Western Wire Part Number: WRG05903

Revision: 5/12 Date: 27 January 2012



### Physical Properties

Inner Conductor	Solid 0.574±0.02 mm bare copper covered steel (CCS) 23#
Dielectric	Solid LDPE, 3.70±0.10 mm OD
Dielectric thickness	1.56 mm nom. 1.40 mm min.
Outer Conductor	Single bare copper (BC) braid, 96% coverage, 24x5x0.16 mm bare copper wires, 4.85 mm max. OD.
Outer Jacket	Flame retardant Low-Smoke Zero-Halogen compound (LS0H, HFFR).
Outer Jacket color	Black RAL 9005.
Jacket thickness	0.90 mm nom. 0.74 mm min.
Overall Diameter	6.15±0.20 mm
Surface Marking	WESTERN WIRE WRG05903 TYPE MIL-DTL-17 M17/29-RG59 FSHC FR IEC 60332-1 LS0H COAXIAL CABLE CE 2002/95/EC (RoHS) [Month, Year] [Batch Number]

### Mechanical Properties

Minimum Bend Radius	120 mm
Storage Temperature	-20 to +60C
Operating temperature	-40 to +80C
Center conductor elongation	1% min.
Center conductor tensile strength	560 N/mm <sup>2</sup> min.
Cold bend	5 wraps, 60mm mandrel after 4 hours @ -20C.
Flame Test	IEC 60332-1 (Fire), IEC 60754 (gas) & IEC 61034 (smoke).
Jacket tensile properties before aging	Tensile strength: 1.0 MPa min. Elongation: 200% min.
Jacket tensile properties after aging 100C x 168 Hours	Tensile strength: 85% min. retention. Elongation: 50% min. retention.
Total Weight	55 Kg/Km nom.
Jacket strip-ability @100mm/min	50mm Length: 10N min. 30N max.

### Electrical Properties @ 20C

Characteristic Impedance	75±3 Ohm @ 5-1000 MHz
Capacitance	65.6 pF/m max. @ 1 KHz
Velocity of Propagation	66% min.
DC Resistance of inner conductor	157.5 Ohm/Km max.
DC Resistance of outer conductor	9.0 Ohm/Km max.
Continuous working voltage	1.7KV rms max.
Corona extinction	2.3 KV rms min.
Dielectric strength (conductor to shield)	7 KV rms min.
Jacket spark-test	5 KV rms min.
Jacket dielectric test after cold bend	5 KV rms min.

Frequency MHz	Max. Attenuation dB/100m	Frequency MHz	Max. Attenuation dB/100m
1	2.0	400	25.0
10	3.6	700	34.0
50	8.5	800	37.0
100	12.0	900	40.0
200	17.5	1000	45.0

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