

Technical Specification

Cable Type: 1x3x16# PVC Insulated and Jacketed Foil Shielded 300V MB Instrumentation Cable

Western Wire Part Number: DZ503J10

Revision: 3/11 Date: 30 May 2011



Physical Description

Power-Limited Tray Cable conforming to UL Subject 13 and NEC Article 725 Class 2 Circuits.

The cable is rated at 90C and 300V and can be used for instrument interconnections in process plant for LF control applications.

Conductors	Stranded 16AWG bare annealed copper 7x0.49 mm nom., Class B ASTM B-8.
Insulation type	Flame retardant PVC compound.
Insulation thickness	0.4 mm nom.
Insulation OD	2.35 mm nom.
Total number of conductors	3
Color code	Black x White x Red.
Conductor arrangement	The 3 conductors are twisted together with a lay length of 60mm max.
Core warp	Polyester tape, providing 100% coverage.
Drain wire	Stranded 20AWG annealed tinned copper 7x0.32 mm nom.
Overall shield	Polyester-aluminum tape, foil face in, providing 100% coverage.
Rip cord	PA stranded rip-cord laid under the jacket for easy jacket removal.
Inner Jacket	Heavy-duty Flame-retardant PVC compound, colored black.
Inner Jacket thickness	0.5 mm nom.
Inner jacket OD	6.0 mm nom.
Rip cord	PA stranded rip-cord laid under the jacket for easy jacket removal.
Moisture barrier	200µ aluminum tape, copolymer coated (both sides), bonded to itself and to the outer jacket.
Overall Jacket	Heavy-duty Flame-retardant PE compound, UV resistant.
Jacket thickness	0.8 mm nom.
Overall Diameter	9.0 mm nom.
Color	Black, RAL 9005.
Surface Marking	WESTERN WIRE DZ503J10 1x3x16AWG SHIELDED 300V INSTRUMENT CABLE MB FR IEC 60332-1 UL 1581 VW-1 CE 2002/95/EC (RoHS) [Month, Year] [Batch Number] [Sequential Meter Mark] METER

Physical Properties

Minimum Bend Radius	110 mm
Operating temperature	-30 to +90C
Flame test	IEC 60332-1 & UL 1581 VW-1
Total Weight	115 Kg/Km nom.

Electrical Properties @ 20C

DC Resistance of conductors	13.9 Ohm /Km max.
Continuous working voltage	300 V rms max.
Insulation resistance	200 MOhm/Km min.
Insulation Dielectric strength	2000 V rms min/ 1 minute between conductors and between conductors & shield.
Jacket Dielectric strength	5000 V rms min/ 1 minute (shield to water)
Mutual capacitance	150 pF/m nom. @ 1 KHz
Inductance	0.25 µH/m nom.
Velocity of propagation	55% nom. @ 1 KHz

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