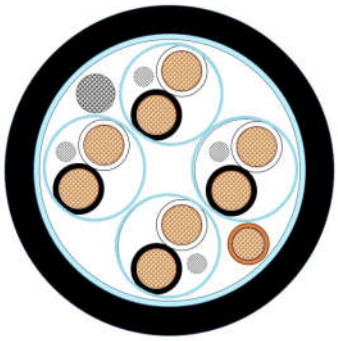
WesternWire

Technical Specification

Cable Type: 4x2x16# PVC Insulated and Jacketed Individual and Overall Foil Shielded 60V Instrumentation Cable

Western Wire Part Number: DD604J1V

Revision: 03/23 Date: 06 March 2023



Cable construction

Basic Wires	**Signal wires**	**Communication wire**
conductors	Stranded bare annealed copper, 7x0.49 mm nom. (16 AWG)	Stranded bare annealed copper, 7x0.23 mm nom. (22 AWG)
Insulation type	FR-PVC compound	FR-PVC compound
Insulation thickness	0.4 mm nom.	0.4 mm nom.
Insulation OD	2.3 mm nom.	1.55 mm nom.
Total number of conductors	8	1
Total number of twisted pairs	4	N/A
Color code	Black x White (All pairs)	Orange

Pair identification	Printed numbers on the white wire with black ink
Pair construction	The 2 wires are cabled together in a lay length of 50mm max. Adjacent pairs are twisted with different lays
Individual pair shield	23 mic. polyester-aluminum tape, foil face in, providing 100% coverage, laid in close contact with a tin-plated, 20 AWG stranded (7x0.32 mm) drain-wire
Core cabling	The 4 pairs are cabled together with the communication wire
Core warp	Polyester tape, providing 100% coverage
Drain wire	Stranded annealed tinned copper, 7x0.49 mm nom. (16 AWG)
Overall shield	Polyester-aluminum tape, foil face in, providing 100% coverage
Outer jacket	UV-Resistant FR-PVC compound
Jacket thickness	1.3 mm nom.
Overall diameter	12.7 ± 0.5 mm
Jacket color	Black, RAL 9005
Surface marking	WESTERN WIRE DD604J1V 4x2x16 AWG SHIELDED 60V INSTRUMENTATION CABLE FR IEC 60332-1 CE 2011/65/EU (RoHS-2) [Month, Year] [Batch Number] [Sequential Meter Mark] METER

Physical Properties

Minimum bend radius	6 x D
Storage temperature	-20 to +60°C
Operating temperature	-30 to +90°C
Flame test	IEC 60332-1
Total weight	258 kg/km nom.
Note:	All dimensional & weight values are calculated values and may vary

Electrical Properties @ 20°C

DC Resistance - 16#	13.9 Ω /km max.
DC Resistance - 22#	73.8 Ω /km max.
Continuous working voltage	60V rms max.
Insulation Dielectric strength	2000 V rms min/ 1 minute (between conductors)
Jacket Dielectric strength	5000 V rms min/ 1 minute (shield to water)
Velocity of propagation	55% nom. @ 1 kHz

This cable fully conforms to EU Directive 2011/65/EU (RoHS-2)