

9954 Multi-Conductor - Communication and Instrumentation Cable



Description:

16 AWG stranded (19x29) tinned copper conductors, conductors cabled, nylon skin over insulation, PVC insulation, tinned copper braid shield (90% coverage), PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
4	16	19x29	TC - Tinned Copper

Insulation

Insulation Material:

Layer #	Insulation Material	Wall Thickness (in.)
1	PVC - Polyvinyl Chloride	.012
2	Nylon	.004

Insulation Resistance:

500 megohms/1000 ft. @ 500 VDC

Outer Shield

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	TC - Tinned Copper	90

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	.027

Overall Cabling

Overall Cabling Lay Length & Direction:

Length (in.)	Twists (ft.)
2.75	4.3

Overall Cabling Color Code Chart:

Number	Color
1	White
2	Black
3	Red
4	Green

Overall Nominal Diameter:

0.291 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +105°C

UL Temperature Rating: 105°C

Bulk Cable Weight: 64.800 lbs/1000 ft.

Max. Recommended Pulling Tension: 121.600 lbs.

Min. Bend Radius (Install)/Minor Axis: 2.750 in.

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Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	10/01/2005
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Military Specification:	MIL-W-16878E/17 (insulated conductor)

Flame Test

UL Flame Test:	UL1685 UL Loading, VW-1
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Plenum/Non-Plenum

Plenum (Y/N):	No
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Electrical Characteristics (Overall)

Nom. Inductance:

Inductance (µH/ft)

.108

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)

49

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)

94

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

4.4

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

4.4

Max. Operating Voltage - UL:

Voltage

600 V RMS

Max. Recommended Current:

Current

6.5 Amps per conductor @ 25°C

Put Ups and Colors:




Item #	Putup	Ship Weight	Color	Notes	Item Desc
9954 009100	100 FT	7.700 LB	WHITE		4 #16 PVC/NY SHLD PVC
9954 0091000	1,000 FT	73.000 LB	WHITE	C	4 #16 PVC/NY SHLD PVC
9954 009500	500 FT	34.500 LB	WHITE	C	4 #16 PVC/NY SHLD PVC

Notes:

C = CRATE REEL PUT-UP.

Overall Braid Shield

MIL-W-16878 (Type B) Conductors, Shielded and Jacketed[†]
Communication and Instrumentation Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Nominal Capacitance			
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	pF/ Ft.	pF/ m	pF/ Ft.	pF/ m
22 AWG Stranded (19x34) TC Conductors • .003" (.76mm) Clear Nylon Skin over Insulation • Tinned Copper Braid Shield (90% Coverage)																		
PVC Insulation • White PVC Jacket																		
600V RMS 105°C VW-1	9965	—	1	White	1000	304.8	10.0	4.5	.010	.25	.010	.25	.100	2.54	—	—	100	328
					500	152.4	10.5	4.8	.010	.25	.020	.51	.176	4.47	52	171	87	285
	9966	—	2	White, Black	100	30.5	2.9	1.3	.010	.25	.020	.51	.176	4.47	52	171	87	285
					500	152.4	10.5	4.8	.010	.25	.020	.51	.176	4.47	52	171	87	285
					1000	304.8	19.0	8.7	.010	.25	.020	.51	.176	4.47	52	171	87	285
	9967	—	3 ^{††}	White, Black, Red	100	30.5	3.4	1.5	.010	.25	.020	.51	.184	4.67	45	148	88	289
					500	152.4	13.0	5.9	.010	.25	.020	.51	.184	4.67	45	148	88	289
					1000	304.8	24.0	10.9	.010	.25	.020	.51	.184	4.67	45	148	88	289
	9968	—	4 ^{††}	White, Black, Red, Green	100	30.5	3.9	1.8	.010	.25	.020	.51	.200	5.08	42	138	69	226
					500	152.4	14.5	6.6	.010	.25	.020	.51	.200	5.08	42	138	69	226
					1000	304.8	29.0	13.2	.010	.25	.020	.51	.200	5.08	42	138	69	226
20 AWG Stranded (19x32) Tinned Copper Conductors • .004" (.10mm) Clear Nylon Skin over Insulation • TC Braid Shield (90% Coverage)																		
PVC Insulation • White PVC Jacket																		
600V RMS 105°C VW-1	9961	—	1	White	500	152.4	4.5	2.0	.011	.27	.010	.25	.109	2.77	—	—	103	338
					1000	304.8	9.0	4.1	.011	.27	.020	.51	.192	4.88	53	174	91	299
	9962	—	2 ^{††}	White, Black	100	30.5	3.3	1.5	.011	.27	.020	.51	.192	4.88	53	174	91	299
					500	152.4	11.0	5.0	.011	.27	.020	.51	.192	4.88	53	174	91	299
					1000	304.8	22.0	10.0	.011	.27	.020	.51	.192	4.88	53	174	91	299
	9963	—	3 ^{††}	White, Black, Red	100	30.5	3.9	1.8	.011	.27	.025	.64	.210	5.33	49	161	84	276
					500	152.4	14.5	6.6	.011	.27	.025	.64	.210	5.33	49	161	84	276
					1000	304.8	29.0	13.2	.011	.27	.025	.64	.210	5.33	49	161	84	276
	9964	—	4 ^{††}	White, Black, Red, Green	100	30.5	4.6	2.1	.011	.27	.025	.64	.226	5.74	40	131	100	328
					500	152.4	18.0	8.2	.011	.27	.025	.64	.226	5.74	40	131	100	328
					1000	304.8	39.0	17.7	.011	.27	.025	.64	.226	5.74	40	131	100	328
16 AWG Stranded (19x29) Tinned Copper Conductors • .004" (.10mm) Clear Nylon Skin over Insulation • TC Braid Shield (90% Coverage)																		
PVC Insulation • White PVC Jacket																		
600V RMS 105°C VW-1	9951	—	1	White	1000	304.8	20.0	9.1	.012	.30	.016	.41	.143	3.63	—	—	138	453
					500	152.4	19.0	8.7	.012	.30	.025	.64	.250	6.35	57	187	95	312
	9952	—	2 ^{††}	White, Black	100	30.5	4.6	2.1	.012	.30	.025	.64	.250	6.35	57	187	95	312
					500	152.4	19.0	8.7	.012	.30	.025	.64	.250	6.35	57	187	95	312
					1000	304.8	42.0	19.1	.012	.30	.025	.64	.250	6.35	57	187	95	312
	9953	—	3 ^{††}	White, Black, Red	100	30.5	5.2	2.4	.012	.30	.025	.64	.264	6.71	58	190	101	331
					500	152.4	26.0	11.9	.012	.30	.025	.64	.264	6.71	58	190	101	331
					1000	304.8	56.0	25.5	.012	.30	.025	.64	.264	6.71	58	190	101	331
	9954	—	4 ^{††}	White, Black, Red, Green	100	30.5	7.7	3.5	.012	.30	.027	.69	.291	7.39	49	161	94	308
					500	152.4	34.5	15.7	.012	.30	.027	.69	.291	7.39	49	161	94	308
					1000	304.8	73.0	33.1	.012	.30	.027	.69	.291	7.39	49	161	94	308

TC = Tinned Copper

* Capacitance between conductors.

** Capacitance between one conductor and other conductors connected to shield.

† Manufactured to Government specifications: MIL-W-16878 Rev. D.

†† Conductors cabled.