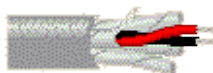


## 9877 Multi-Conductor - Audio, Control and Instrumentation Cable



### Description:

20 AWG stranded (7x28) TC conductors, polypropylene insulation, twisted pairs, individually shielded w/Beldfoil® (100% coverage), 22 AWG stranded TC drain wire, overall PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
12	20	7x28	TC - Tinned Copper

#### Insulation

Insulation Material:

Insulation Material
PP - Polypropylene

#### Inner Shield

Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
Beldfoil® (Z-Fold®)	Tape	Aluminum Foil-Polyester Tape	100

Inner Shield Drain Wire AWG:

AWG
22

Inner Shield Drain Wire Stranding: 19x34

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

#### Overall Cabling

Overall Nominal Diameter: 0.617 in.

#### Pair

Pair Color Code Chart:

Number	Color
1	Black & Red
2	Black & White
3	Black & Green
4	Black & Blue
5	Black & Yellow
6	Black & Brown
7	Black & Orange
8	Red & White
9	Red & Green
10	Red & Blue
11	Red & Yellow
12	Red & Brown

Pair Lay Length & Direction:

## 9877 Multi-Conductor - Audio, Control and Instrumentation Cable

Lay Length (in.)	Twists/ft. (twist/ft)
1.750	6.850

### Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +80°C
UL Temperature Rating:	80°C (UL AWM Style 2919)
Bulk Cable Weight:	196.340 lbs/1000 ft.
Max. Recommended Pulling Tension:	440 lbs.
Min. Bend Radius (Install)/Minor Axis:	6 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CM
CEC/C(UL) Specification:	CM
AWM Specification:	UL Style 2919 (30 V 80°C)
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):	01/01/2004
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

#### Flame Test

UL Flame Test:	UL1685 UL Loading
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#### Plenum/Non-Plenum

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

#### Nom. Characteristic Impedance:

Impedance (Ohm)
50

#### Nom. Inductance:

Inductance (µH/ft)
0.18

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
30

#### Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)
55

#### Nominal Velocity of Propagation:

VP (%)
66

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
10.5

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C:	11.300 Ohm/1000 ft
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## 9877 Multi-Conductor - Audio, Control and Instrumentation Cable

**Max. Operating Voltage - UL:**

Voltage
30 V RMS (UL AWM Style 2919)
300 V RMS (CM)

**Max. Recommended Current:**

Current
2.0 Amps per conductor @ 25°C

### Put Ups and Colors:

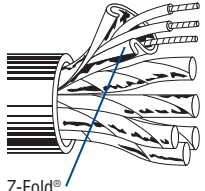
Item #	Putup	Ship Weight	Color	Notes	Item Desc
9877 060100	100 FT	24.100 LB	CHROME	C	12 #20 FS PR PP PVC
9877 0601000	1,000 FT	237.000 LB	CHROME	C	12 #20 FS PR PP PVC
9877 060500	500 FT	119.000 LB	CHROME	C	12 #20 FS PR PP PVC

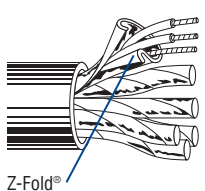
**Notes:**

C = CRATE REEL PUT-UP.

# Individually Shielded

## Audio, Control and Instrumentation Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Nom. DCR		Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nom. Capacitance			
					Ft.	m	Lbs.	kg	Cond.	Shield	Inch	mm			* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m
<b>20 AWG Stranded (7x28) TC Conductors • Twisted Pairs • Individually Shielded w/Beldfoil® (100% Coverage) • 22 AWG Stranded TC Drain Wire</b>																		
<b>Polypropylene Insulation • Overall Chrome PVC Jacket</b>																		
 <p>Z-Fold®</p>	9873	NEC:	3	See Chart 3	100	30.5	6.6	3.0	10.5Ω/M'	14.0Ω/M'	.341	8.66	50	66%	30	98	55	180
		CM			250	76.2	14.5	6.6	34.4Ω/km	45.9Ω/km								
		CEC:			(Tech Info	500	152.4	32.5	14.8									
		CM			Section)	1000	304.8	58.0	26.3									
	9874	NEC:	6	See Chart 3	100	30.5	10.3	4.7	10.5Ω/M'	11.3Ω/M'	.445	11.30	50	66%	30	98	55	180
		CM			250	76.2	29.0	13.2	34.4Ω/km	37.1Ω/km								
		CEC:			(Tech Info	500	152.4	56.5	25.7									
		CM			Section)	1000	304.8	113.0	51.3									
	9875	NEC:	9	See Chart 3	100	30.5	17.7	8.1	10.5Ω/M'	11.3Ω/M'	.555	14.10	50	66%	30	98	55	180
		CM			500	152.4	97.0	44.0	34.4Ω/km	37.1Ω/km								
CEC:		(Tech Info			1000	304.8	187.0	88.4										
CM		Section)																
9876	NEC:	11	See Chart 3	1000	304.8	220.0	100.0	10.5Ω/M'	11.3Ω/M'	.600	15.24	50	66%	30	98	55	180	
	CM						34.4Ω/km	37.1Ω/km										
	CEC:			(Tech Info														
	CM			Section)														
9877	NEC:	12	See Chart 3	100	30.5	22.1	10.1	10.5Ω/M'	11.3Ω/M'	.617	15.67	50	66%	30	98	55	180	
	CM			500	152.4	119.0	54.1	34.4Ω/km	37.1Ω/km									
	CEC:			(Tech Info	1000	304.8	237.0	107.7										
	CM			Section)														
9879	NEC:	15	See Chart 3	500	152.4	146.0	66.4	10.5Ω/M'	11.3Ω/M'	.689	17.50	50	66%	30	98	55	180	
	CM			1000	304.8	296.0	134.5	34.4Ω/km	37.1Ω/km									
	CEC:			(Tech Info														
	CM			Section)														

<b>18 AWG Stranded (19x30) TC Conductors • Twisted Pairs • Individually Shielded w/Beldfoil (100% Coverage) • 20 AWG Stranded TC Drain Wire</b>																		
<b>Polypropylene Insulation • Chrome PVC Jacket</b>																		
 <p>Z-Fold®</p>	9773	NEC:	3	See Chart 3	100	30.5	10.8	4.9	6.4Ω/M'	8.3Ω/M'	.404	10.26	50	66%	30	98	55	180
		CM			500	152.4	52.5	23.8	21.0Ω/km	27.2Ω/km								
		CEC:			(Tech Info	1000	304.8	107.0	48.6									
		CM			Section)													
	9774	NEC:	6	See Chart 3	100	30.5	16.1	7.3	6.4Ω/M'	8.3Ω/M'	.560	14.22	50	66%	30	98	55	180
		CM			500	152.4	89.5	40.9	21.0Ω/km	27.2Ω/km								
		CEC:			(Tech Info	1000	304.8	176.0	80.8									
		CM			Section)													
	9775	NEC:	9	See Chart 3	100	30.5	25.8	11.7	6.4Ω/M'	8.3Ω/M'	.655	16.64	50	66%	30	98	55	180
		CM			500	152.4	123.0	55.8	21.0Ω/km	27.2Ω/km								
CEC:		(Tech Info			1000	304.8	241.0	109.4										
CM		Section)																
9776	NEC:	12	See Chart 3	100	30.5	31.6	14.4	6.4Ω/M'	8.3Ω/M'	.735	18.67	50	66%	30	98	55	180	
	CM			500	152.4	151.5	69.0	21.0Ω/km	27.2Ω/km									
	CEC:			(Tech Info	1000	304.8	307.0	139.4										
	CM			Section)														
9777	NEC:	15	See Chart 3	100	30.5	38.8	17.6	6.4Ω/M'	8.3Ω/M'	.819	20.80	50	66%	30	98	55	180	
	CM			500	152.4	194.0	88.1	21.0Ω/km	27.2Ω/km									
	CEC:			(Tech Info	1000	304.8	421.0	191.1										
	CM			Section)														

DCR = DC Resistance • TC = Tinned Copper

\*Capacitance between conductors.

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