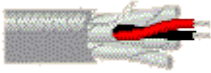


## 9879 Multi-Conductor - Audio, Control and Instrumentation Cable



### 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 |
|---------|-----|-----------|--------------------|
| 15      | 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: 0.689 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    |
| 13     | Red & Orange   |
| 14     | Green & White  |

## 9879 Multi-Conductor - Audio, Control and Instrumentation Cable

|    |              |
|----|--------------|
| 15 | Green & Blue |
|----|--------------|

**Pair Lay Length & Direction:**

| 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:                     | 241.370 lbs/1000 ft.     |
| Max. Recommended Pulling Tension:      | 460 lbs.                 |
| Min. Bend Radius (Install)/Minor Axis: | 6.550 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 |
|----------------|-------------------|

**Plenum/Non-Plenum**

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

### 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                     |

## 9879 Multi-Conductor - Audio, Control and Instrumentation Cable

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 11.300 Ohm/1000 ft

### 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:

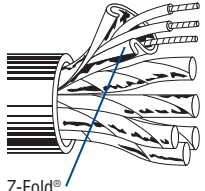
| Item #       | Putup    | Ship Weight | Color  | Notes | Item Desc           |
|--------------|----------|-------------|--------|-------|---------------------|
| 9879 0601000 | 1,000 FT | 296.000 LB  | CHROME | C     | 15 FS PR #20 PP PVC |
| 9879 060500  | 500 FT   | 146.000 LB  | CHROME | C     | 15 FS PR #20 PP PVC |

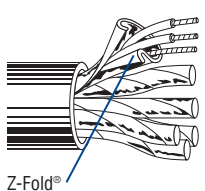
#### Notes:

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.