



Description:

22 AWG stranded (7x30) TC conductor, polypropylene insulation, twisted pairs individually shielded with Beldfoil® (100% coverage), overall PVC jacket and 22 AWG stranded TC drain wire.

Physical Characteristics (Overall)

Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material | Dia. (in.) |
|---------|-----|-----------|--------------------|------------|
| 19 | 22 | 7x30 | TC - Tinned Copper | .030 |

Insulation

Insulation Material:

| Insulation Material | Dia. (in.) |
|---------------------|------------|
| PP - Polypropylene | .050 |

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: Stranded

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: 0.601 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 |

| | |
|----|----------------|
| 15 | Green & Blue |
| 16 | Green & Yellow |
| 17 | Green & Brown |
| 18 | Green & Orange |
| 19 | White & 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: | 232.800 lbs/1000 ft. |
| Max. Recommended Pulling Tension: | 443 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 |
|----------------|-------------------|

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) |
|--------------------------|
| 15 |

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 10.600 Ohm/1000 ft

Max. Operating Voltage - UL:

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

Max. Recommended Current:

| Current |
|----------------------------|
| 1 Amp per conductor @ 25°C |

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|--------------|----------|-------------|--------|-------|-----------------------|
| 8769 060100 | 100 FT | 25.300 LB | CHROME | C | 19 FS PR #22 HDPE PVC |
| 8769 0601000 | 1,000 FT | 248.000 LB | CHROME | C | 19 FS PR #22 HDPE PVC |
| 8769 060500 | 500 FT | 125.000 LB | CHROME | C | 19 FS PR #22 HDPE PVC |

Notes:
C = CRATE REEL PUT-UP.

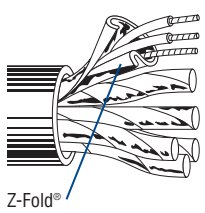
Individually Shielded

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 |

22 AWG Stranded (7x30) TC Conductors • Twisted Pairs • Individually Shielded w/Beldfoil® (100% Coverage) • 22 AWG Stranded TC Drain Wire

Polypropylene Insulation • Chrome PVC Jacket

| | | | | | | | | | | | | | | | | | | | | |
|---|--|------|---|------------|-------|---------|---------|-------|----------|----------|------|------|----|-----|----|----|----|-----|--|--|
|  <p>Z-Fold®</p> | 8777 UL AWM Style 2919 (30V 80°C) | NEC: | 3 | See | 100 | 30.5 | 4.7 | 2.1 | 15.0Ω/M' | 10.6Ω/M' | .273 | 6.93 | 50 | 66% | 30 | 98 | 55 | 180 | | |
| | | CM | | Chart 3 | 250 | 76.2 | 10.0 | 4.5 | 49.2Ω/km | 34.8Ω/km | | | | | | | | | | |
| | | CEC: | | (Tech Info | U-500 | U-152.4 | 21.0 | 9.5 | | | | | | | | | | | | |
| | | CM | | Section) | 500 | 152.4 | 20.0 | 9.1 | | | | | | | | | | | | |
| | | | | | | U-1000 | U-304.8 | 41.0 | 18.6 | | | | | | | | | | | |
| | | | | | | 1000 | 304.8 | 44.0 | 20.0 | | | | | | | | | | | |
| | | | | | | 1640 | 499.9 | 70.5 | 32.0 | | | | | | | | | | | |
| | | | | | | 3280 | 999.7 | 141.0 | 64.0 | | | | | | | | | | | |
| | | | | | | 5000 | 1524.0 | 215.0 | 97.6 | | | | | | | | | | | |
| | | | | | | 10000†† | 3048.0 | 460.0 | 208.8 | | | | | | | | | | | |

For Plenum versions of 8777, see 88777, 87777 or 82777.

| | | | | | | | | | | | | | | | | | |
|-------------|------|---|------------|------|-------|------|------|----------|----------|------|------|----|-----|----|----|----|-----|
| 8778 | NEC: | 6 | See | 100 | 30.5 | 8.4 | 3.8 | 15.0Ω/M' | 10.6Ω/M' | .362 | 9.19 | 50 | 66% | 30 | 98 | 55 | 180 |
| | CM | | Chart 3 | 250 | 76.2 | 19.0 | 8.6 | 49.2Ω/km | 34.8Ω/km | | | | | | | | |
| | CEC: | | (Tech Info | 500 | 152.4 | 43.0 | 19.5 | | | | | | | | | | |
| | CM | | Section) | 1000 | 304.8 | 83.0 | 37.7 | | | | | | | | | | |

For Plenum versions of 8778, see 88778, 87778 or 82778.

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|-------------|------|---|------------|------|-------|-------|------|----------|----------|------|-------|----|-----|----|----|----|-----|
| 8774 | NEC: | 9 | See | 100 | 30.5 | 11.5 | 5.2 | 15.0Ω/M' | 10.6Ω/M' | .417 | 10.59 | 50 | 66% | 30 | 98 | 55 | 180 |
| | CM | | Chart 3 | 250 | 76.2 | 29.5 | 13.4 | 49.2Ω/km | 34.8Ω/km | | | | | | | | |
| | CEC: | | (Tech Info | 500 | 152.4 | 57.5 | 26.1 | | | | | | | | | | |
| | CM | | Section) | 1000 | 304.8 | 113.0 | 51.3 | | | | | | | | | | |

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|-------------|------|----|------------|------|-------|-------|------|----------|----------|------|-------|----|-----|----|----|----|-----|
| 8775 | NEC: | 11 | See | 100 | 30.5 | 12.1 | 5.5 | 15.0Ω/M' | 10.6Ω/M' | .464 | 11.79 | 50 | 66% | 30 | 98 | 55 | 180 |
| | CM | | Chart 3 | 500 | 152.4 | 65.5 | 29.7 | 49.2Ω/km | 34.8Ω/km | | | | | | | | |
| | CEC: | | (Tech Info | 1000 | 304.8 | 130.0 | 59.0 | | | | | | | | | | |
| | CM | | Section) | | | | | | | | | | | | | | |

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|-------------|------|----|------------|------|-------|-------|------|----------|----------|------|-------|----|-----|----|----|----|-----|
| 9768 | NEC: | 12 | See | 100 | 30.5 | 13.2 | 6.0 | 15.0Ω/M' | 10.6Ω/M' | .464 | 11.79 | 50 | 66% | 30 | 98 | 55 | 180 |
| | CM | | Chart 3 | 250 | 76.2 | 36.5 | 16.5 | 49.2Ω/km | 34.8Ω/km | | | | | | | | |
| | CEC: | | (Tech Info | 500 | 152.4 | 73.5 | 33.4 | | | | | | | | | | |
| | CM | | Section) | 1000 | 304.8 | 143.0 | 65.0 | | | | | | | | | | |

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|-------------|------|----|------------|------|-------|-------|------|----------|----------|------|-------|----|-----|----|----|----|-----|
| 8776 | NEC: | 15 | See | 100 | 30.5 | 17.8 | 8.1 | 15.0Ω/M' | 10.6Ω/M' | .548 | 13.92 | 50 | 66% | 30 | 98 | 55 | 180 |
| | CM | | Chart 3 | 250 | 76.2 | 49.5 | 22.5 | 49.2Ω/km | 34.8Ω/km | | | | | | | | |
| | CEC: | | (Tech Info | 500 | 152.4 | 98.0 | 44.5 | | | | | | | | | | |
| | CM | | Section) | 1000 | 304.8 | 197.0 | 89.5 | | | | | | | | | | |

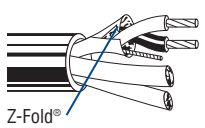
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|-------------|------|----|------------|------|-------|-------|------|----------|----------|------|-------|----|-----|----|----|----|-----|
| 9769 | NEC: | 17 | See | 100 | 30.5 | 20.0 | 9.1 | 15.0Ω/M' | 10.6Ω/M' | .577 | 14.66 | 50 | 66% | 30 | 98 | 55 | 180 |
| | CM | | Chart 3 | 500 | 152.4 | 109.0 | 49.5 | 49.2Ω/km | 34.8Ω/km | | | | | | | | |
| | CEC: | | (Tech Info | 1000 | 304.8 | 215.0 | 97.7 | | | | | | | | | | |
| | CM | | Section) | | | | | | | | | | | | | | |

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|-------------|------|----|------------|------|-------|-------|-------|----------|----------|------|-------|----|-----|----|----|----|-----|
| 8769 | NEC: | 19 | See | 100 | 30.5 | 22.9 | 10.4 | 15.0Ω/M' | 10.6Ω/M' | .603 | 15.32 | 50 | 66% | 30 | 98 | 55 | 180 |
| | CM | | Chart 3 | 500 | 152.4 | 123.0 | 55.8 | 49.2Ω/km | 34.8Ω/km | | | | | | | | |
| | CEC: | | (Tech Info | 1000 | 304.8 | 244.0 | 110.8 | | | | | | | | | | |
| | CM | | Section) | | | | | | | | | | | | | | |

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|-------------|------|----|------------|------|-------|-------|-------|----------|----------|------|-------|----|-----|----|----|----|-----|
| 8773 | NEC: | 27 | See | 100 | 30.5 | 33.9 | 15.4 | 15.0Ω/M' | 10.6Ω/M' | .709 | 18.00 | 50 | 66% | 30 | 98 | 55 | 180 |
| | CM | | Chart 3 | 250† | 76.2 | 83.8 | 38.0 | 49.2Ω/km | 34.8Ω/km | | | | | | | | |
| | CEC: | | (Tech Info | 500 | 152.4 | 163.0 | 74.0 | | | | | | | | | | |
| | CM | | Section) | 1000 | 304.8 | 341.0 | 154.8 | | | | | | | | | | |

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|-------------|------|----|------------|-------|-------|-------|-------|----------|----------|------|-------|----|-----|----|----|----|-----|
| 9767 | NEC: | 37 | See | 500† | 152.4 | 224.0 | 101.8 | 15.0Ω/M' | 10.6Ω/M' | .800 | 20.32 | 50 | 66% | 30 | 98 | 55 | 180 |
| | CM | | Chart 3 | 1000† | 304.8 | 481.0 | 218.6 | 49.2Ω/km | 34.8Ω/km | | | | | | | | |
| | CEC: | | (Tech Info | | | | | | | | | | | | | | |
| | CM | | Section) | | | | | | | | | | | | | | |

Polypropylene Insulation • Black Low-Smoke, Zero-Halogen Jacket

| | | | | | | | | | | | | | | | | | | |
|---|---|-----------------------------|---|------------|--------|---------|------|------|----------|----------|------|------|----|-----|----|----|----|-----|
|  <p>Z-Fold®</p> | 8777SB U300V RMS, Non-conduit | NEC: | 3 | See | U-500† | U-152.4 | 19.5 | 8.9 | 15.0Ω/M' | 10.6Ω/M' | .273 | 6.93 | 50 | 66% | 30 | 98 | 55 | 180 |
| | | CMG-LS | | Chart 3 | U-1000 | U-304.8 | 38.0 | 17.3 | 49.2Ω/km | 34.8Ω/km | | | | | | | | |
| | | CEC: | | (Tech Info | 1000† | 304.8 | 39.0 | 17.7 | | | | | | | | | | |
| | | CMG-LS FT4 Limited Smoke | | Section) | | | | | | | | | | | | | | |

DCR = DC Resistance • TC = Tinned Copper

*Capacitance between conductors.

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

† Spools are one piece, but length may vary -0 to +20% from length shown.

†† Final put-up length may vary -10% to +20% from length shown. May contain 2 pieces. Minimum length of any one piece is 1500 ft.