

8622 Multi-Conductor - Audio, Control and Instrumentation Cable



Description:

16 AWG stranded (19x29) tinned copper conductors, conductors cabled, PVC insulation, PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

| # Conductors | AWG | Stranding | Conductor Material |
|--------------|-----|-----------|--------------------|
| 12 | 16 | 19x29 | TC - Tinned Copper |

Insulation

Insulation Material:

| Insulation Material | Wall Thickness (in.) |
|--------------------------|----------------------|
| PVC - Polyvinyl Chloride | .031 |

Insulation Resistance: 500 Megaohms/1000 ft.

Outer Shield

Outer Shield Material:

| Outer Shield Material |
|-----------------------|
| Unshielded |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material | Nom. Wall Thickness (in.) |
|--------------------------|---------------------------|
| PVC - Polyvinyl Chloride | .060 |

Overall Cabling

Overall Cabling Lay Length & Direction:

| Length (in.) | Twists (ft.) |
|--------------|--------------|
| 9.11 | 1.3 |

Overall Cabling Color Code Chart:

| Number | Color |
|--------|--------------|
| 1 | Black |
| 2 | White |
| 3 | Red |
| 4 | Green |
| 5 | Orange |
| 6 | Blue |
| 7 | White/Black |
| 8 | Red/Black |
| 9 | Green/Black |
| 10 | Orange/Black |
| 11 | Blue/Black |
| 12 | Black/White |

Overall Nominal Diameter: 0.627 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +80°C

UL Temperature Rating: 80°C

8622 Multi-Conductor - Audio, Control and Instrumentation Cable

| | |
|---|----------------------|
| Bulk Cable Weight: | 229.700 lbs/1000 ft. |
| Max. Recommended Pulling Tension: | 364 lbs. |
| Min. Bend Radius (Install)/Minor Axis: | 6 in. |

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 |

Flame Test

| | |
|--------------------------|-----------|
| Other Flame Test: | VW-1, FT1 |
|--------------------------|-----------|

Electrical Characteristics (Overall)

Nom. Capacitance Conductor to Conductor:

| |
|----------------------------|
| Capacitance (pF/ft) |
| 19.5 |

Nom. Conductor DC Resistance:

| |
|---------------------------------|
| DCR @ 20°C (Ohm/1000 ft) |
| 4.4 |

Max. Operating Voltage - UL:

| |
|----------------|
| Voltage |
| 600 V RMS |

Max. Recommended Current:

| |
|-----------------------------|
| Current |
| 5 Amps per conductor @ 25°C |

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|--------------|----------|-------------|--------|-------|------------------|
| 8622 060100 | 100 FT | 27.000 LB | CHROME | | 12 #16 PVC FRPVC |
| 8622 0601000 | 1,000 FT | 251.000 LB | CHROME | C | 12 #16 PVC FRPVC |
| 8622 060500 | 500 FT | 126.500 LB | CHROME | C | 12 #16 PVC FRPVC |

Notes:

C = CRATE REEL PUT-UP.

Introduction

Belden® multi-conductor cables are manufactured in a wide variety of gage sizes, dimensions, insulation materials, shielding configurations, and jacketing materials including Plenum and High-Temperature versions. These cables meet the technical requirements of many different types of systems. In fact, Belden offers one of the broadest lines of UL Listed, NEC and CEC multi-conductor cables available from any single source.

Applications for multi-conductor cables include computers, communications, instrumentation, sound, control, audio, and data transmission. Each of these cables is designed to protect signal integrity under critical conditions by reducing hum, noise, and crosstalk.

To assist you in selecting the proper cable for your application, both the suggested working voltages and the maximum temperature ratings are indicated for each applicable product in this section.

Most of our multi-conductor cables are available from stock. Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find a multi-conductor cable in this catalog section that meets your technical requirements, contact Technical Support at 1-800-BELDEN-1.

Multi-Conductor Cables Packaging

Belden's unique UnReel® cable dispenser is available for many of the multi-conductor products listed in this section. The letter "U" before the specified put-up length denotes UnReel packaging.

Selection Guide

Shielded Multi-Conductor Computer Cables for RS-232 Applications

| Specifications | | Cable Series* | | | |
|---------------------------------|--------------------|---------------|------|------|------|
| | | 9925 | 9608 | 9533 | 9939 |
| Conductor Size: (AWG) | 28 | | | | |
| | 24 | ✓ | ✓ | ✓ | |
| | 22 | | | | ✓ |
| | 20 | | | | |
| | 18 | | | | |
| Page No. | | 4.18 | 4.17 | 4.11 | 4.19 |
| Insulation: | S-R PVC | | ✓ | ✓ | ✓ |
| | Polyethylene | | | | |
| | Polypropylene | | | | |
| | Datalene®† | ✓ | | | |
| Shield: | Overall Foil | | | ✓ | |
| | Drain Wire | ✓ | | ✓ | |
| | Overall Foil/Braid | ✓ | ✓ | | ✓ |
| | Braid Coverage | 65% | 65% | | 65% |
| Drain Wire Overall: | | Yes | No | Yes | No |
| No. of Cond. Available: | 1 | | | | |
| | 2 | | | | |
| | 3 | ✓ | ✓ | ✓ | ✓ |
| | 4 | ✓ | ✓ | ✓ | ✓ |
| | 5 | ✓ | ✓ | ✓ | ✓ |
| | 6 | ✓ | ✓ | ✓ | ✓ |
| | 7 | ✓ | ✓ | ✓ | ✓ |
| | 8 | ✓ | ✓ | ✓ | ✓ |
| | 9 | ✓ | ✓ | ✓ | ✓ |
| | 10 | ✓ | ✓ | ✓ | ✓ |
| | 11 | | | | |
| | 12 | | | | |
| | 13 | | | | |
| | 15 | ✓ | ✓ | ✓ | ✓ |
| | 17 | | | | |
| | 18 | | | | |
| | 19 | | | | |
| | 20 | | | ✓ | |
| | 25 | ✓ | ✓ | ✓ | ✓ |
| | 27 | | | | |
| 30 | | | ✓ | | |
| 31 | | | | | |
| 37 | ✓ | ✓ | | ✓ | |
| 40 | | | ✓ | | |
| 50 | | ✓ | ✓ | ✓ | |
| Capacitance ** (pF/ft.) | | 12.0 | 30.0 | 30.0 | 35.0 |

*All cables are UL-listed.

**Capacitance may vary on some cables.

† Foam high density polyethylene.

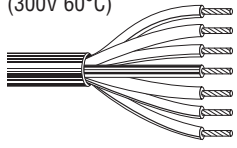
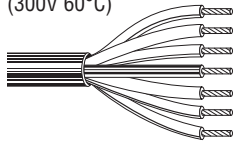
Unshielded

Audio, Control and Instrumentation Cables Plenum-Rated and Non-Plenum

| 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 | |
|-------------|----------|------------------------------|--------------------|---------------|------------------|---|-------------------------|----|-------------------------|----|---------------------|----|------------|----|
| | | | | | Ft. | m | Lbs. | kg | Inch | mm | Inch | mm | Inch | mm |

18 AWG Stranded (19x30) Tinned Copper Conductors • Conductors Cabled *(continued)*

PVC Insulation • Chrome PVC Jacket

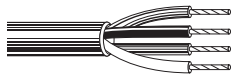
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|--|-------------|----------------------------------|------------------------|------------------------|-------|-------|-------|-------|------|-----|------|------|------|-------|
|  | 8619 | UL AWM Style 2598 (300V 60°C) | NEC: 19 | See | 100 | 30.5 | 20.3 | 9.2 | .017 | .43 | .045 | 1.14 | .490 | 12.45 |
| | | CMG | Chart 2R | 500 | 152.4 | 101.0 | 45.9 | | | | | | | |
| | | CEC: CMG FT4 | (Tech Info Section) | 1000 | 304.8 | 198.0 | 90.0 | | | | | | | |
|  | 9626 | | NEC: 25 | See | 100 | 30.5 | 29.1 | 13.2 | .017 | .43 | .060 | 1.52 | .612 | 15.54 |
| | | | CMG | Chart 2R | 500 | 152.4 | 139.5 | 63.3 | | | | | | |
| | | | CEC: CMG FT4 | (Tech Info Section) | 1000 | 304.8 | 277.0 | 125.8 | | | | | | |

Plenum • FEP Insulation • Red FEP Jacket

| | | | | | | | | | | | | | | |
|--|--------------|----------|-----------------|-----------------------------------|-------------------|-------|------|------|------|-----|------|-----|------|------|
|  | 88489 | 300V RMS | NEC: 4 | Black, White, Red, Green | 500 [†] | 152.4 | 14.5 | 6.6 | .007 | .18 | .009 | .23 | .161 | 4.09 |
| | | | CMP | | 1000 [†] | 304.8 | 29.0 | 13.2 | | | | | | |
| | | | CEC: CMP FT6 | | | | | | | | | | | |


Suitable for Outdoor and Direct Burial applications.

Plenum • FEP Insulation • Natural Flamarrest® Jacket

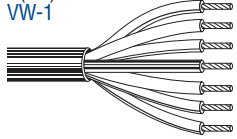
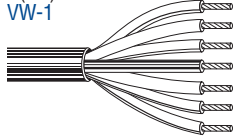
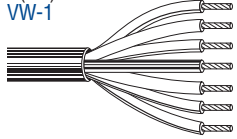
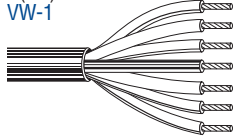
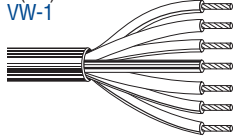
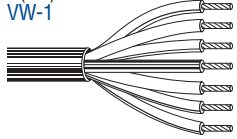
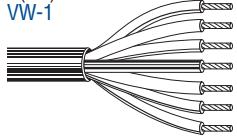
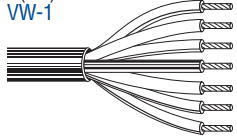
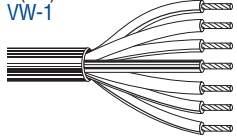
| | | | | | | | | | | | | | | |
|--|--------------|----------|-----------------|-----------------------------------|---------------------|---------|------|------|------|-----|------|-----|------|------|
|  | 82489 | 300V RMS | NEC: 4 | Black, White, Red, Green | U-1000 [†] | U-304.8 | 31.0 | 14.1 | .007 | .18 | .014 | .36 | .170 | 4.32 |
| | | | CMP | | 1000 [†] | 304.8 | 29.0 | 13.2 | | | | | | |
| | | | CEC: CMP FT6 | | | | | | | | | | | |

16 AWG Stranded (19x29) Tinned Copper Conductors • Conductors Cabled

PVC Insulation • Cabled Wire (No Jacket)

| | | | | | | | | | | | | | | | |
|--|-------------|--|---|---|--|------|-------|------|------|------|-----|---|---|------|------|
|  | 9498 | UL AWM Style 1007 (300V 80°C) VV-1 | — | 3 | Orange, Black, Orange w/ Black Stripe | 1000 | 304.8 | 42.0 | 19.1 | .027 | .69 | — | — | .243 | 6.17 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

PVC Insulation • Chrome PVC Jacket

| | | | | | | | | | | | | | | | |
|--|-------------|------------------------------------|---|----|--|------|-------|-------|-------|------|-----|------|------|------|-------|
|  | 8620 | 600V RMS 80°C C(UL) FT4 VV-1 | — | 4 | See Chart 2 (Tech Info Section) | 100 | 30.5 | 8.9 | 4.0 | .031 | .79 | .042 | 1.07 | .376 | 9.55 |
| | | | | | | 500 | 152.4 | 44.0 | 20.0 | | | | | | |
| | | | | | | 1000 | 304.8 | 88.0 | 40.0 | | | | | | |
|  | 9620 | | — | 5 | See Chart 2 (Tech Info Section) | 100 | 30.5 | 11.0 | 5.0 | .031 | .79 | .042 | 1.07 | .411 | 10.44 |
| | | | | | | 500 | 152.4 | 53.5 | 24.3 | | | | | | |
| | | | | | | 1000 | 304.8 | 109.0 | 49.5 | | | | | | |
|  | 8621 | | — | 7 | See Chart 2R (Tech Info Section) | 100 | 30.5 | 13.2 | 6.0 | .031 | .79 | .045 | 1.14 | .458 | 11.63 |
| | | | | | | 500 | 152.4 | 73.5 | 33.4 | | | | | | |
| | | | | | | 1000 | 304.8 | 143.0 | 65.0 | | | | | | |
|  | 9721 | | — | 8 | See Chart 2R (Tech Info Section) | 100 | 30.5 | 27.3 | 12.4 | .031 | .79 | .045 | 1.14 | .496 | 12.60 |
| | | | | | | 500 | 152.4 | 136.5 | 62.0 | | | | | | |
| | | | | | | 1000 | 304.8 | 269.0 | 122.1 | | | | | | |
|  | 9621 | | — | 9 | See Chart 2R (Tech Info Section) | 100 | 30.5 | 17.0 | 7.8 | .031 | .79 | .045 | 1.14 | .533 | 13.54 |
| | | | | | | 500 | 152.4 | 94.0 | 42.7 | | | | | | |
| | | | | | | 1000 | 304.8 | 181.0 | 82.2 | | | | | | |
|  | 8622 | | — | 12 | See Chart 2R (Tech Info Section) | 100 | 30.5 | 27.0 | 12.3 | .031 | .79 | .060 | 1.52 | .627 | 15.93 |
| | | | | | | 500 | 152.4 | 126.5 | 57.4 | | | | | | |
| | | | | | | 1000 | 304.8 | 251.0 | 114.0 | | | | | | |
|  | 8623 | | — | 15 | See Chart 2R (Tech Info Section) | 100 | 30.5 | 32.5 | 14.8 | .031 | .79 | .060 | 1.52 | .694 | 17.63 |
| | | | | | | 500 | 152.4 | 155.5 | 70.6 | | | | | | |
| | | | | | | 1000 | 304.8 | 314.0 | 142.6 | | | | | | |
|  | 8624 | | — | 19 | See Chart 2R (Tech Info Section) | 100 | 30.5 | 36.8 | 16.7 | .031 | .79 | .065 | 1.65 | .740 | 18.80 |
| | | | | | | 500 | 152.4 | 178.5 | 81.0 | | | | | | |
| | | | | | | 1000 | 304.8 | 361.0 | 164.0 | | | | | | |
|  | 9622 | | — | 25 | See Chart 2R (Tech Info Section) | 100 | 30.5 | 49.0 | 22.2 | .031 | .79 | .065 | 1.65 | .879 | 22.33 |
| | | | | | | 500 | 152.4 | 236.0 | 107.1 | | | | | | |
| | | | | | | 1000 | 304.8 | 480.0 | 217.9 | | | | | | |

[†]Spools and/or UnReel® cartons are one piece, but length may vary ± 10% for spools and ± 5% for UnReel from length shown.