

## 9729 Multi-Conductor - Shielded Twisted Pair Cable



For more Information  
please call

1-800-Belden1



### General Description:

24 AWG stranded (7x32) tinned copper conductors, Datalene® insulation, twisted pairs, individually Beldfoil® shielded (100% coverage), 24 AWG stranded tinned copper drain wire, PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material | Dia. (in.) |
|---------|-----|-----------|--------------------|------------|
| 2       | 24  | 7x32      | TC - Tinned Copper | .024       |

Total Number of Conductors: 4

#### Insulation

Insulation Material:

| Insulation Trade Name | Insulation Material     | Wall Thickness (in.) |
|-----------------------|-------------------------|----------------------|
| Datalene®             | FPE - Foam Polyethylene | 0.019                |

#### 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 |
|-----|
| 24  |

Inner Shield Drain Wire Stranding: 7x32

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

#### Outer Jacket

Outer Jacket Material:

| Outer Jacket Material    | Nom. Wall Thickness (in.) |
|--------------------------|---------------------------|
| PVC - Polyvinyl Chloride | 0.048                     |

#### Overall Cable

Overall Nominal Diameter: 0.266 in.

#### Pair

Pair Color Code Chart:

| Number | Color         |
|--------|---------------|
| 1      | Black & Red   |
| 2      | Black & White |

Pair Lay Length & Direction:

| Lay Length (in.) | Twists (twist/ft) | Direction |
|------------------|-------------------|-----------|
| 1.750            | 6.900             | Left Hand |

### Mechanical Characteristics (Overall)

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

UL Temperature Rating: 80C (UL AWM Style 2919)

Bulk Cable Weight: 35 lbs/1000 ft.

Max. Recommended Pulling Tension: 22 lbs.

Min. Bend Radius/Minor Axis: 2.750 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CM

NEC Articles: 800

CEC/C(UL) Specification: CM

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|                                       |                           |
|---------------------------------------|---------------------------|
| AWM Specification:                    | UL Style 2919 (30 V 80°C) |
| EU Directive 2011/65/EU (ROHS II):    | Yes                       |
| 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                       |
| MIL Order #39 (China RoHS):           | Yes                       |

### Flame Test

|                 |                   |
|-----------------|-------------------|
| UL Flame Test:  | UL1685 UL Loading |
| CSA Flame Test: | FT1               |

### Suitability

|                       |     |
|-----------------------|-----|
| Suitability - Indoor: | Yes |
|-----------------------|-----|

### Plenum/Non-Plenum

|                |              |
|----------------|--------------|
| Plenum (Y/N):  | No           |
| Plenum Number: | 89729, 82729 |

### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

Impedance (Ohm)  
100

#### Nom. Inductance:

Inductance (µH/ft)  
0.23

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)  
12.5

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

Capacitance (pF/ft)  
23.2

#### Nominal Velocity of Propagation:

VP (%)  
76

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)  
24

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 15 Ohm/1000 ft

#### Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| .384        | 0.74                     |
| .7056       | 0.87                     |
| .768        | 0.88                     |
| 1.024       | 0.94                     |
| 1.4112      | 1.01                     |
| 1.536       | 1.03                     |
| 2.048       | 1.13                     |
| 2.8224      | 1.29                     |
| 3.072       | 1.35                     |
| 4.096       | 1.57                     |
| 5.6448      | 1.78                     |
| 6.144       | 1.84                     |
| 8.192       | 2.13                     |
| 11.2896     | 2.45                     |
| 12.288      | 2.57                     |
| 24.576      | 3.57                     |

#### Max. Operating Voltage - UL:

|                |
|----------------|
| <b>Voltage</b> |
| 300 V RMS      |

**Max. Recommended Current:**

| Description          | Current                            |
|----------------------|------------------------------------|
| 10C temperature rise | 1 Amp per conductor @ 25°C ambient |

### Notes (Overall)

**Notes:** Datalene® insulation features include low dielectric constant and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.

### Put Ups and Colors:

| Item #        | Putup     | Ship Weight | Color  | Notes | Item Desc             |
|---------------|-----------|-------------|--------|-------|-----------------------|
| 9729 060100   | 100 FT    | 4.300 LB    | CHROME |       | 2 FS PR #24 FHDPE PVC |
| 9729 0601000  | 1,000 FT  | 38.000 LB   | CHROME | C     | 2 FS PR #24 FHDPE PVC |
| 9729 06010000 | 10,000 FT | 390.000 LB  | CHROME | C Y   | 2 FS PR #24 FHDPE PVC |
| 9729 060500   | 500 FT    | 20.500 LB   | CHROME | C     | 2 FS PR #24 FHDPE PVC |
| 9729 0605000  | 5,000 FT  | 185.000 LB  | CHROME | C     | 2 FS PR #24 FHDPE PVC |

**Notes:**

C = CRATE REEL PUT-UP.

Y = FINAL PUT-UP LENGTH MAY VARY -10% TO +20% FROM LENGTH SHOWN.MAY CONTAIN 2 PIECES. MINIMUM LENGTH OF ANY ONE PIECE IS 1500'.

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