# **Detailed Specifications & Technical Data**

METRIC MEASUREMENT VERSION



### 89730 Multi-Conductor - Multi-Pair Snake Cable

For more Information please call

1-800-Belden1



## **General Description:**

24 AWG stranded (7x32) tinned copper conductor, foam FEP insulation, twisted pairs, individually Beldfoil shielded (100% coverage), 24 AWG stranded tinned copper drain wire, overall fluorocopolymer jacket.

## **Physical Characteristics (Overall)**

#### Conductor

#### AWG:

| # Pairs | AWG | Stranding | <b>Conductor Material</b> | Dia. (mm) |
|---------|-----|-----------|---------------------------|-----------|
| 3       | 24  | 7x32      | TC - Tinned Copper        | 0.6096    |

Total Number of Conductors: 6

#### Insulation

#### **Insulation Material:**

| Insulation Material                        | Wall Thickness (mm) |
|--|---------------------|
| FFEP - Foam Fluorinated Ethylene Propylene | 0.483               |

#### **Inner Shield**

#### Inner Shield Material:

| Inner Shield Trade Name T |      | Inner Shield Material        | Coverage (%) |
|---------------------------|------|------------------------------|--------------|
| Beldfoil®                 | Tape | Aluminum Foil-Polyester Tape | 100          |

#### Inner Shield Drain Wire AWG:



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 (mm) |
|------------------------|--------------------------|
| PVDF - Fluorocopolymer | 0.432                    |

### **Overall Cable**

Overall Nominal Diameter: 7.061 mm

#### Pair

## Pair Color Code Chart:

| Number | Color                       |
|--------|-----------------------------|
| 1      | White/Blue & Blue/White     |
| 2      | White/Orange & Orange/White |
| 3      | White/Green & Green/White   |

# **Mechanical Characteristics (Overall)**

| Operating Temperature Range:      | -20°C To +150°C |  |
|-----------------------------------|-----------------|--|
| Bulk Cable Weight:                | 53.575 Kg/Km    |  |
| Max. Recommended Pulling Tension: | 146.791 N       |  |
| Min. Bend Radius/Minor Axis:      | 76.200 mm       |  |

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| Ap  | Applicable Specifications and Agency Compliance (Overall) |            |  |  |  |
|-----|---|------------|--|--|--|
| Ap  | Applicable Standards & Environmental Programs             |            |  |  |  |
|     | NEC/(UL) Specification:                                   | CMP        |  |  |  |
|     | CEC/C(UL) Specification:                                  | CMP        |  |  |  |
|     | 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):                     | 04/01/2005 |  |  |  |
|     | 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        |  |  |  |
| Fla | ame Test  |            |  |  |  |
|     | UL Flame Test:  | NFPA 262   |  |  |  |
|     | CSA Flame Test:   | FT6        |  |  |  |
| Ple | enum/Non-Plenum   |            |  |  |  |
|     | Plenum (Y/N):   | Yes        |  |  |  |
|     | Non-Plenum Number:  | 9730       |  |  |  |
|     |   |            |  |  |  |

# **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:



Nom. Inductance:



Nom. Capacitance Conductor to Conductor:



Nom. Capacitance Cond. to Other Conductor & Shield:



**Nominal Velocity of Propagation:** 



**Nominal Delay:** 

Delay (ns/m) 4.2653

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 78.744

Ind. Pair Nominal Shield DC Resistance @ 20 47.246 Ohm/km Deg. C:

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| .384        | 2.42794               |
| .7056       | 2.85447               |

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| .768    | 2.92009 |
|---------|---------|
| 1.024   | 3.11695 |
| 1.4112  | 3.37943 |
| 1.536   | 3.47786 |
| 2.048   | 3.83877 |
| 2.8224  | 4.49497 |
| 3.072   | 4.72464 |
| 4.096   | 5.47927 |
| 5.6448  | 6.20109 |
| 6.144   | 6.43076 |
| 8.192   | 7.41506 |
| 11.2896 | 8.49779 |
| 12.288. | 8.89151 |
| 24.576  | 12.2381 |

#### Max. Operating Voltage - UL:

Voltage 300 V RMS

#### Max. Recommended Current:

Current 2.0 Amps per conductor @ 25°C

# **Put Ups and Colors:**

| Item #        | Putup    | Ship Weight | Color | Notes | Item Desc            |
|---------------|----------|-------------|-------|-------|----------------------|
| 89730 0081000 | 1,000 FT | 40.000 LB   | GRAY  | С     | 3 SH PR #24 FFEP SLF |
| 89730 008500  | 500 FT   | 21.500 LB   | GRAY  | С     | 3 SH PR #24 FFEP SLF |

#### Notes:

C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 09-25-2012

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