

# Category 5e Data Cable

## 24AWG, SF/UTP with PUR Sheath

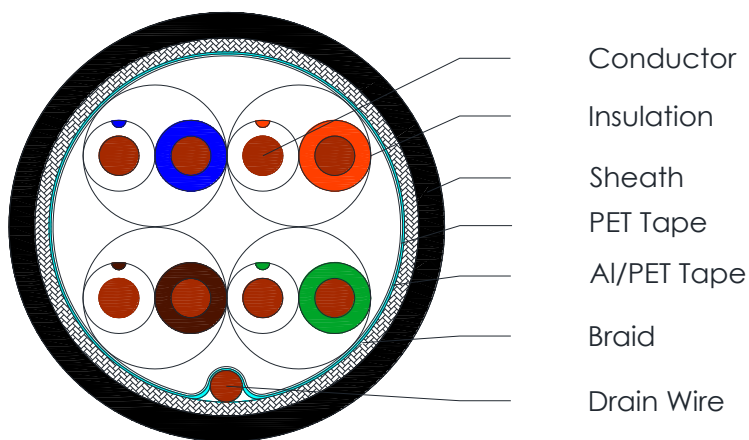


C6004

### Applications

Twisted pair cable suitable for Industrial Area Networks and Video Applications

### Cross Section Drawing



### Design

| Unit                   | Properties  |
|------------------------|---|
| Conductor              | Solid Plain Copper Wire   |
| Insulation             | Polypropylene<br>Pair 1: WHITE/Blue + BLUE<br>Pair 2: WHITE/Orange + ORANGE<br>Pair 3: WHITE/Green + GREEN<br>Pair 4: WHITE/Brown + BROWN |
| Pair                   | Two wires twisted together  |
| Wrapping               | PET Tape  |
| Screen                 | Aluminium/Polyester tape  |
| Drain Wire             | Tinned Copper wire  |
| Braid                  | Tinned Copper wire  |
| Sheath Material        | Oil and Sunlight Resistant PUR (Halogen Free, Flame Retardant)<br>Standard Color: Black   |
| Standard Put Up Length | 305 metres  |

\*Other Colors, Put Up Lengths and structures can be manufactured upon request, please contact your local B3 International sales representative.

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#### Physical Characteristics

| Part Number                       | C6004          |
|-----------------------------------|----------------|
| Screen type                       | SF/UTP         |
| No. of Pairs                      | 4              |
| Conductor Size (AMG)              | 24             |
| Drain Wire Size (AMG)             | 26             |
| Screen Coverage (%)               | 115            |
| Braid Coverage (%)                | 80             |
| Nom. Radial Thickness Sheath (mm) | 0.8            |
| Nom. Overall Diameter (mm)        | 6.8            |
| Operating Temperature (°C)        | -40°C to +80°C |
| Installation Temperature (°C)     | -15°C to +60°C |
| Min. Bend Radius (install) (mm)   | 66             |
| Maximum Pulling Tension (Newton)  | 80             |

#### Electrical Characteristics at 20°C

| Conductor Resistance (Ohm/100m) | Mutual Capacitance (pF/m) |     | Input Impedance (Ohm) | Velocity of Propagation (%) | Maximum Delay Skew (ns/100m) | Max. Operating Voltage (Volts RMS) |
|---------------------------------|---------------------------|-----|-----------------------|-----------------------------|------------------------------|------------------------------------|
|                                 | UTP                       | FTP |                       |                             |                              |                                    |
| 10                              | 48                        | 50  | 100 ± 15              | 65                          | 45                           | 300                                |

| Frequency (MHz) | Return Loss (dB/100m) | Maximum Attenuation (dB/100m) | Minimum NEXT (dB) | Maximum Time Delay (ns/100m) | Minimum PSNEXT (dB) | Minimum ELFEXT (dB) | Minimum PSELFEXT (dB) |
|-----------------|-----------------------|-------------------------------|-------------------|------------------------------|---------------------|---------------------|-----------------------|
| 1               | 20.0                  | 2.0                           | 65.3              | 570.00                       | 62.3                | 63.8                | 60.8                  |
| 4               | 23.0                  | 4.1                           | 56.3              | 552.00                       | 53.3                | 51.7                | 48.7                  |
| 8               | 24.5                  | 5.8                           | 51.8              | 546.73                       | 48.8                | 45.7                | 42.7                  |
| 10              | 25.0                  | 6.5                           | 50.3              | 545.38                       | 47.3                | 43.8                | 40.8                  |
| 16              | 25.0                  | 8.2                           | 47.2              | 543.00                       | 44.4                | 39.7                | 36.7                  |
| 20              | 25.0                  | 9.3                           | 45.8              | 542.05                       | 42.8                | 37.7                | 34.7                  |
| 25              | 24.3                  | 10.4                          | 44.3              | 541.20                       | 41.3                | 35.8                | 32.8                  |
| 31.25           | 23.6                  | 11.7                          | 42.9              | 540.44                       | 39.9                | 33.9                | 30.9                  |
| 62.5            | 21.5                  | 17.0                          | 38.4              | 538.55                       | 35.4                | 27.8                | 24.8                  |
| 100             | 20.1                  | 22.0                          | 35.3              | 537.60                       | 32.3                | 23.8                | 20.8                  |

#### Reference Standards

|   |                            |
|---|----------------------------|
| ISO/IEC 11801 Ed.2.2:2002/A2:2010/C1:2011 | IEC 61034, IEC 60754-1 & 2 |
| ISO 24702                                 | EN 50173 Ed.3:2011         |
| ANSI/TIA/EIA-568-C2                       | UL AWM 20549               |
| EN 50290-2                                | IEC 60811-2-1 (Oil)        |
| IEC 60332-1                               | RoHS directives            |

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