

# Low Capacitance RS-485 Computer Cables

## 22 & 24AWG, Shielded, PVC Sheath

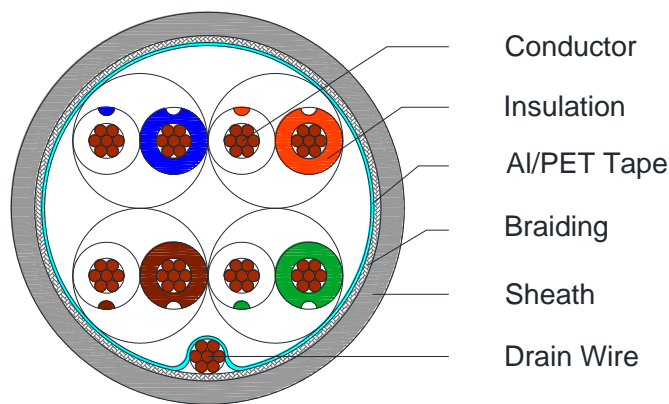


C4042, C4043, C4044, C4045, C4046, C4047, C4048, C4049, C4050

### Applications

Computer Cables used for EIA RS-485 applications.

### Cross Section Drawing



### Design

| Unit                   | Properties  |
|------------------------|---|
| Conductor              | Tinned Copper wire, flexible  |
| Insulation             | Foam or solid PE<br>Color code<br>Pair 1: WHITE/Blue + BLUE/White<br>Pair 2: WHITE/Orange + ORANGE/White<br>Pair 3: WHITE/Green + GREEN/White<br>Pair 4: WHITE/Brown + BROWN/White<br>Color code for C4043<br>Pair 1: WHITE/Orange + ORANGE/White<br>Core 1: BLUE/White |
| Pair                   | two twisted wires   |
| Cable Core             | N pairs stranded  |
| Screen                 | Aluminium/Polyester 100% Coverage   |
| Drain Wire             | Tinned Copper 24AWG (7 x 32)  |
| Braid                  | Tinned Copper Wire  |
| Sheath Material        | Polyvinyl Chloride (PVC)<br>Standard Color: Grey  |
| Standard Put Up Length | 305 or 500 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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### C4042, C4043, C4044, C4045, C4046, C4047, C4048, C4049, C4050

#### Physical Characteristics

| Part Number                           | C4042     | C4043 | C4044 | C4045 | C4046 | C4047  | C4048 | C4049 | C4050 |
|---------------------------------------|-----------|-------|-------|-------|-------|--------|-------|-------|-------|
| No of pairs                           | 1         | 1.5   | 2     | 3     | 4     | 1      | 2     | 3     | 4     |
| Conductor Gauge (AMG)                 | 22        |       |       |       |       | 24     |       |       |       |
| Conductor configuration (AMG)         | 7 x 30    |       |       |       |       | 7 x 32 |       |       |       |
| Insulation material                   | FPE       | FPE   | FPE   | FPE   | FPE   | FPE    | PE    | PE    | PE    |
| Nom. Radial Thickness Insulation (mm) | 0.6       | 0.6   | 0.5   | 0.5   | 0.5   | 0.55   | 0.55  | 0.55  | 0.55  |
| Coverage braid (%)                    | 65        |       |       |       |       | 90     |       |       |       |
| Nom. Radial Thickness Sheath (mm)     | 0.8       |       |       |       |       |        |       |       |       |
| Nom. Overall Diameter (mm)            | 6.1       | 7.6   | 9.1   | 9.3   | 10.3  | 5.9    | 8.0   | 8.6   | 9.3   |
| Operating Temperature (°C)            | -25 / +90 |       |       |       |       |        |       |       |       |
| Max. Pulling Tension (N)              | 265       | 289   | 355   | 400   | 445   | 320    | 385   | 460   | 485   |
| Min. Bend Radius (install) (mm)       | 60        | 76    | 90    | 95    | 105   | 60     | 85    | 90    | 100   |
| Nominal Cable Weight (kg/km)          | 63.7      | 70.0  | 75.6  | 97    | 119.1 | 49     | 80.5  | 92.6  | 114.4 |

#### Electrical Characteristics

| Part Number                                  | C4042 | C4043 | C4044 | C4045 | C4046 | C4047 | C4048 | C4049 | C4050 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| No of pairs                                  | 1     | 1.5   | 2     | 3     | 4     | 1     | 2     | 3     | 4     |
| Max. DC Resistance Conductor ( $\Omega$ /km) | 57.4  |       |       |       |       | 88    |       |       |       |
| Max. DC Resistance Screen ( $\Omega$ /km)    | 20    |       |       |       |       | 15    |       |       |       |
| Nominal Impedance ( $\Omega$ )               | 120   |       |       |       |       |       |       |       |       |
| Capacitance core to core (pF/m)              | 36    | 36    | 37    | 38    | 38    | 32    | 42    | 42    | 45    |
| Capacitance core to rest (pF/m)              | 69    | 69    | 69    | 69    | 69    | 70    | 80    | 80    | 90    |
| Nom. Attenuation at 1 MHz (dB/100m)          | 2.05  |       |       |       |       | 2.6   |       |       |       |
| Max. Recom. Current @ 25°C (Amps)            | 2.7   | 2.7   | 2.7   | 2.7   | 2.7   | 2.1   | 2.1   | 1.54  | 1.54  |
| Max. Operating Voltage (Vrms)                | 300   |       |       |       |       |       |       |       |       |

#### Reference Standards

|                 |
|-----------------|
| (IEC 60332-1    |
| IEC 60228       |
| (BS)EN 50290-2  |
| RoHS directives |