Low Capacitance RS-485 Computer Cables
18AWG, Overall Screen, HFFR Sheath

C1405, C1406, C1407, C1408

Applications
Building Management Systems (BMS), Access Control, Instrumentation

Cross Section Drawing

Design

<table>
<thead>
<tr>
<th>Unit</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductor</td>
<td>Tinned Copper wire, flexible</td>
</tr>
<tr>
<td>Insulation</td>
<td>Foam PE</td>
</tr>
<tr>
<td></td>
<td>Pair 1: WHITE/Blue + BLUE/White</td>
</tr>
<tr>
<td></td>
<td>Pair 2: WHITE/Orange + ORANGE/White</td>
</tr>
<tr>
<td></td>
<td>Pair 3: WHITE/Green + GREEN/White</td>
</tr>
<tr>
<td></td>
<td>Pair 4: WHITE/Brown + BROWN/White</td>
</tr>
<tr>
<td>Cabling</td>
<td>N Pairs twisted together</td>
</tr>
<tr>
<td>Screen</td>
<td>Aluminium/Polyester 115% Coverage</td>
</tr>
<tr>
<td>Drain Wire</td>
<td>Tinned Copper wire</td>
</tr>
<tr>
<td>Braid</td>
<td>Tinned Copper wire</td>
</tr>
<tr>
<td>Sheath Material</td>
<td>Halogen Free Flame Retardant (HFFR)</td>
</tr>
<tr>
<td></td>
<td>Standard colour: Purple</td>
</tr>
<tr>
<td>Standard Put Up Length</td>
<td>305 or 500 meters</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>C1405</th>
<th>C1406</th>
<th>C1407</th>
<th>C1408</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of pairs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Conductor Gauge (AWG)</td>
<td></td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conductor configuration (AWG)</td>
<td></td>
<td>7 x 26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nom. Radial Thickness Insulation (mm)</td>
<td></td>
<td>1.0</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Drain Wire Size (AWG)</td>
<td></td>
<td></td>
<td>24(7 x 32)</td>
<td></td>
</tr>
<tr>
<td>Coverage braid (%)</td>
<td></td>
<td></td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Nom. Radial Thickness Sheath (mm)</td>
<td></td>
<td></td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Nom. Overall Diameter (mm)</td>
<td></td>
<td></td>
<td>9.0</td>
<td>11.5</td>
</tr>
<tr>
<td>Operating Temperature (°C)</td>
<td></td>
<td></td>
<td>-25 / +75</td>
<td></td>
</tr>
<tr>
<td>Max. Pulling Tension (N)</td>
<td></td>
<td></td>
<td>350</td>
<td>460</td>
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<tr>
<td>Min. Bend Radius (install) (mm)</td>
<td></td>
<td></td>
<td>90</td>
<td>115</td>
</tr>
<tr>
<td>Nominal Cable Weight (kg/km)</td>
<td></td>
<td></td>
<td>81</td>
<td>128</td>
</tr>
</tbody>
</table>

## Electrical Characteristics

<table>
<thead>
<tr>
<th>Part Number</th>
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<th>C1406</th>
<th>C1407</th>
<th>C1408</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of pairs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Max. DC Resistance Conductor (Ω/km)</td>
<td></td>
<td></td>
<td>22.7</td>
<td></td>
</tr>
<tr>
<td>Max. DC Resistance Screen (Ω/km)</td>
<td></td>
<td></td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Nominal Impedance (Ω)</td>
<td></td>
<td></td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Capacitance core to core (pF/m)</td>
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<td></td>
<td>32</td>
<td>35</td>
</tr>
<tr>
<td>Capacitance core to rest (pF/m)</td>
<td></td>
<td></td>
<td>70</td>
<td>66</td>
</tr>
<tr>
<td>Nom. Attenuation at 1 MHz (dB/100m)</td>
<td></td>
<td></td>
<td>1.30</td>
<td></td>
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<tr>
<td>Max. Recom. Current @ 25°C (Amps)</td>
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<td></td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Max. Operating Voltage (Vrms)</td>
<td></td>
<td></td>
<td>300</td>
<td></td>
</tr>
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</table>

## Reference Standards

- [BS]EN 50290-2
- IEC 60228
- IEC 60332-1
- IEC 61034, IEC 60754-1 & -2
- RoHS directives