Part Number: 3105A
RS-485, (1 pr) 22 AWG (7x30) TC, FHDPE/PVC, Foil+TC Braid Shld, CM, PLTC

Product Description
One 22 AWG pair stranded (7x30) tinned copper conductors, Datalene® (FHDPE) insulation, twisted pairs, overall Beldfoil® shield (100% coverage) plus a tinned copper braid (65% coverage), PVC jacket.

Technical Specifications

Physical Characteristics (Overall)

Conductor

<table>
<thead>
<tr>
<th>AWG</th>
<th>Stranding</th>
<th>Material</th>
<th>Nominal Diameter</th>
<th>No. of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>7x30</td>
<td>TC - Tinned Copper</td>
<td>0.03 in</td>
<td>1</td>
</tr>
</tbody>
</table>

Conductor Count: 2
Conductor Size: 22 AWG

Insulation

<table>
<thead>
<tr>
<th>Material</th>
<th>Material Trade Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHDPE - Foamed High Density Polyethylene</td>
<td>Datalene®</td>
</tr>
</tbody>
</table>

Color Chart

<table>
<thead>
<tr>
<th>Number</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>White/Blue Stripe and Blue/White Stripe</td>
</tr>
</tbody>
</table>

Outer Shield Material

<table>
<thead>
<tr>
<th>Type</th>
<th>Layer</th>
<th>Material</th>
<th>Material Trade Name</th>
<th>Coverage [%]</th>
<th>Drainwire Material</th>
<th>Drainwire AWG</th>
<th>Drainwire Construction n x D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tape</td>
<td>1</td>
<td>Aluminum/Polyester</td>
<td>Beldfoil®</td>
<td>100 %</td>
<td>TC - Tinned Copper</td>
<td>22</td>
<td>7x30 mm</td>
</tr>
<tr>
<td>Braid</td>
<td>2</td>
<td>TC - Tinned Copper</td>
<td></td>
<td>65 %</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Outer Jacket Material

<table>
<thead>
<tr>
<th>Material</th>
<th>Nominal Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC - Polyvinyl Chloride</td>
<td>0.281 in</td>
</tr>
</tbody>
</table>

Construction and Dimensions

Stranding

| Lay Length | 3.75 in |

Electrical Characteristics

Conductor DCR

<table>
<thead>
<tr>
<th>Nominal Conductor DCR</th>
<th>Nominal Outer Shield DCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.7 Ohm/1000ft</td>
<td>2.8 Ohm/1000ft</td>
</tr>
</tbody>
</table>

Capacitance

<table>
<thead>
<tr>
<th>Nom. Capacitance Conductor to Conductor</th>
<th>Nom. Capacitance Conductor to Other Conductor to Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 pF/ft</td>
<td>20.9 pF/ft</td>
</tr>
</tbody>
</table>

Shielding: Foil + Braid(s)

Impedance
### Nominal Characteristic Impedance
120 Ohm

### High Frequency (Nominal/Typical)

#### Nom. Insertion Loss
0.5 dB/100ft

### Delay

#### Nominal Velocity of Propagation (VP) [%]
78 %

### Current

#### Max. Recommended Current [A]
2.7 Amps per conductor @ 25°C

### Voltage

#### UL Voltage Rating
- 300 V RMS (NEC Type PLTC)
- 300 V RMS (NEC Type CM)

### Electrical Characteristics Notes:
Input Impedance/Unfitted Impedance .5 - 10 MHZ, 120 +/-12 Ohms

### Temperature Range

#### Non-UL Temp Rating:
60°C

#### UL Temp Rating:
60°C

#### Operating Temp Range:
-20°C To +60°C

### Mechanical Characteristics

#### Bulk Cable Weight:
44 lbs/1000ft

#### Max Recommended Pulling Tension:
60 lbs

#### Min Bend Radius/Minor Axis:
2.8 in

### Standards

#### NEC/UL Specification:
CM, PLTC

#### CEC/C(UL) Specification:
CM

#### CPR Euroclass:
Eca

### Applicable Environmental and Other Programs

Yes

Yes

Yes

#### EU Directive 2011/65/EU (ROHS II):
Yes

#### EU Directive 2015/863/EU:
Yes

#### EU Directive Compliance:
EU Directive 2003/11/EC (BFR)

#### EU CE Mark:
Yes

#### EU RoHS Compliance Date (yyyy-mm-dd):
2005-10-01

#### CA Prop 65 (CJ for Wire & Cable):
Yes

#### MII Order #39 (China RoHS):
Yes

### Suitability

#### Suitability - Oil Resistance:
Yes

#### Suitability - Sunlight Resistance:
Yes

### Flammability, LS0H, Toxicity Testing

#### UL Flammability:
UL1685 UL Loading

#### CSA Flammability:
FT1

#### UL voltage rating:
300 V RMS (NEC Type PLTC)

### Plenum/Non-Plenum

#### Plenum (Y/N):
No
### Variants

<table>
<thead>
<tr>
<th>Item #</th>
<th>Color</th>
<th>Footnote</th>
</tr>
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<td>C N</td>
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</tbody>
</table>

Footnote:  
C - CRATE REEL PUT-UP.

Footnote:  
N - FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

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