**General Description:**
22 AWG stranded (7x30) tinned copper conductors, Datalene® insulation, twisted pairs, overall Beldfoil® shield (100% coverage) plus a tinned copper braid (65% coverage), drain wire, UV resistant PVC jacket.

**Physical Characteristics (Overall)**

**Conductor**

<table>
<thead>
<tr>
<th># Pairs</th>
<th>AWG</th>
<th>Stranding</th>
<th>Conductor Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>22</td>
<td>7x30</td>
<td>TC - Tinned Copper</td>
</tr>
</tbody>
</table>

Total Number of Conductors: 6

**Insulation**

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

**Outer Shield**

<table>
<thead>
<tr>
<th>Layer #</th>
<th>Outer Shield Trade Name</th>
<th>Type</th>
<th>Outer Shield Material</th>
<th>Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Beldfoil®</td>
<td>Tape</td>
<td>Aluminum Foil-Polyester Tape</td>
<td>100.000</td>
</tr>
<tr>
<td>2</td>
<td>Braid</td>
<td>TC - Tinned Copper</td>
<td>65.000</td>
<td></td>
</tr>
</tbody>
</table>

**Outer Shield Drain Wire AWG:**

<table>
<thead>
<tr>
<th>AWG</th>
<th>Stranding</th>
<th>Conductor Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>7x30</td>
<td>TC - Tinned Copper</td>
</tr>
</tbody>
</table>

**Outer Jacket**

<table>
<thead>
<tr>
<th>Outer Jacket Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC - Polyvinyl Chloride</td>
</tr>
</tbody>
</table>

**Overall Cable**

<table>
<thead>
<tr>
<th>Number</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>White/Blue Stripe &amp; Blue/White Stripe</td>
</tr>
<tr>
<td>2</td>
<td>White/Orange Stripe &amp; Orange/White Stripe</td>
</tr>
<tr>
<td>3</td>
<td>White/Green Stripe &amp; Green/White Stripe</td>
</tr>
</tbody>
</table>

Overall Nominal Diameter: 0.374 in.

**Mechanical Characteristics (Overall)**

| Operating Temperature Range   | -20°C To +60°C |
| Non-UL Temperature Rating     | 60°C           |
| Bulk Cable Weight             | 85 lbs/1000 ft. |
| Max. Recommended Pulling Tension | 90 lbs.      |
| Min. Bend Radius/Minor Axis   | 3.750 in.      |

**Applicable Specifications and Agency Compliance (Overall)**

**Applicable Standards & Environmental Programs**

- NEC/(UL) Specification: CM, PLTC Oil Res II
- NEC Articles: 725,800
- CEC/C(UL) Specification: CM
- EU Directive 2011/65/EU (ROHS II): Yes
- EU Directive 2006/53/EC (ELV): Yes
- EU Directive 2002/95/EC (RoHS): Yes
3108A Multi-Conductor - EIA Industrial RS-485 PLTC/CM

EU RoHS Compliance Date (mm/dd/yyyy): 10/01/2005
EU Directive 2002/96/EC (WEEE): Yes
CA Prop 65 (CJ for Wire & Cable): Yes
MII Order #39 (China RoHS): Yes

Flame Test
UL Flame Test: UL1685 UL Loading
CSA Flame Test: FT1

Suitability
Suitability - Indoor: Yes
Suitability - Outdoor: Yes

Plenum/Non-Plenum
Plenum (Y/N): No

Surface Printing (Overall)

Electrical Characteristics (Overall)
Nom. Characteristic Impedance:
- Impedance (Ohm):
  120

Nom. Inductance:
- Description: Inductance (µH/ft)
  - Par: 0.225

Nom. Capacitance Conductor to Conductor:
- Capacitance (pF/ft):
  11.0

Nom. Capacitance Cond. to Other Conductor & Shield:
- Capacitance (pF/ft):
  20.9

Nominal Velocity of Propagation:
- VP (%):
  78

Nom. Conductor DC Resistance:
- DCR @ 20°C (Ohm/1000 ft):
  14.7

Nominal Outer Shield DC Resistance:
- DCR @ 20°C (Ohm/1000 ft):
  1.5

Nom. Attenuation:
- Description: Freq. (MHz) Start Freq. (MHz) Stop Freq. (MHz) Attenuation (dB/100 ft.)
  1 .5

Max. Operating Voltage - UL:
- Voltage: 300 V RMS

Max. Recommended Current:
- Current: 2.7 Amps per conductor @ 25°C

Other Electrical Characteristic 1: Input Impedance/Unfitted Impedance .5 - 10 MHz, 120 ± 12 Ohms

Notes (Overall)
Notes: Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17. For CPE jacketed version order YR45287.

Put Ups and Colors:

<table>
<thead>
<tr>
<th>Item #</th>
<th>Putup</th>
<th>Ship Weight</th>
<th>Color</th>
<th>Notes</th>
<th>Item Desc</th>
</tr>
</thead>
<tbody>
<tr>
<td>3108A 0101000</td>
<td>1,000 FT</td>
<td>70.000 LB</td>
<td>BLACK</td>
<td>C</td>
<td>3 PR #22 FHDPE SH PVC</td>
</tr>
<tr>
<td>3108A 0102000</td>
<td>2,000 FT</td>
<td>134.000 LB</td>
<td>BLACK</td>
<td>C</td>
<td>3 PR #22 FHDPE SH PVC</td>
</tr>
<tr>
<td>3108A 0105000</td>
<td>5,000 FT</td>
<td>355.000 LB</td>
<td>BLACK</td>
<td></td>
<td>3 PR #22 FHDPE SH PVC</td>
</tr>
</tbody>
</table>

Notes:
C = CRATE REEL PUT-UP.
Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

3108A  Multi-Conductor - EIA Industrial RS-485 PLTC/CM

Revision Number: 2  Revision Date: 11-15-2013

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