Product: 558AFS

Access Control, 16c (#22-3pr, #18-4c, #22-6c), Shielded, Banana Peel®, CMR

Product Description
Access Control Cable, Riser-CMR, 3-22 AWG pairs, 4-18 AWG conductors, 4-22 AWG conductors, 2-22 AWG conductors, All conductors stranded bare copper with polyolefin insulation, Each component has overall Beldfoil® shield and PVC jacket, Banana Peel® No overall jacket

Technical Specifications

Physical Characteristics (Overall)

<table>
<thead>
<tr>
<th>Element</th>
<th>AWG</th>
<th>Stranding</th>
<th>Material</th>
<th>Construction n x D</th>
<th>No. of Conductors</th>
<th>No. of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Reader</td>
<td>22</td>
<td>7x30</td>
<td>BC - Bare Copper</td>
<td>7x30</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Door Contact</td>
<td>22</td>
<td>7x30</td>
<td>BC - Bare Copper</td>
<td>7x30</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>REX/Spare</td>
<td>22</td>
<td>7x30</td>
<td>BC - Bare Copper</td>
<td>7x30</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Lock Power</td>
<td>18</td>
<td>7x26</td>
<td>BC - Bare Copper</td>
<td>7x26</td>
<td>4</td>
<td></td>
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</tbody>
</table>

Conductor Count: 16

Insulation

<table>
<thead>
<tr>
<th>Element</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Reader</td>
<td>PP - Polypropylene</td>
</tr>
<tr>
<td>Door Contact</td>
<td>PP - Polypropylene</td>
</tr>
<tr>
<td>REX/Spare</td>
<td>PP - Polypropylene</td>
</tr>
<tr>
<td>Lock Power</td>
<td>PP - Polypropylene</td>
</tr>
</tbody>
</table>

Color Chart

<table>
<thead>
<tr>
<th>Number</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Reader 1</td>
<td>Black &amp; Red</td>
</tr>
<tr>
<td>Card Reader 2</td>
<td>White &amp; Green</td>
</tr>
<tr>
<td>Card Reader 3</td>
<td>Orange &amp; Brown</td>
</tr>
<tr>
<td>Door Contact 1</td>
<td>Black</td>
</tr>
<tr>
<td>Door Contact 2</td>
<td>Red</td>
</tr>
<tr>
<td>REX/Spare 1</td>
<td>Black</td>
</tr>
<tr>
<td>REX/Spare 2</td>
<td>Red</td>
</tr>
<tr>
<td>REX/Spare 3</td>
<td>White</td>
</tr>
<tr>
<td>REX/Spare 4</td>
<td>Green</td>
</tr>
<tr>
<td>Lock Power 1</td>
<td>Black</td>
</tr>
<tr>
<td>Lock Power 2</td>
<td>Red</td>
</tr>
<tr>
<td>Lock Power 3</td>
<td>White</td>
</tr>
<tr>
<td>Lock Power 4</td>
<td>Green</td>
</tr>
</tbody>
</table>

Color Chart 4

<table>
<thead>
<tr>
<th>Number</th>
<th>Color</th>
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</thead>
<tbody>
<tr>
<td>Card Reader</td>
<td>Orange</td>
</tr>
<tr>
<td>Door Contact</td>
<td>White</td>
</tr>
</tbody>
</table>
### Inner Shield Material

<table>
<thead>
<tr>
<th>Element</th>
<th>Type</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>Card Reader</td>
<td>Tape</td>
<td>Alum / Poly</td>
<td>Beldfoil®</td>
<td>100 %</td>
<td>TC - Tinned Copper</td>
<td>24</td>
<td>7x32</td>
</tr>
<tr>
<td>Door Contact</td>
<td>Tape</td>
<td>Alum / Poly</td>
<td>Beldfoil®</td>
<td>100 %</td>
<td>TC - Tinned Copper</td>
<td>24</td>
<td>7x32</td>
</tr>
<tr>
<td>REX/Spare</td>
<td>Tape</td>
<td>Alum / Poly</td>
<td>Beldfoil®</td>
<td>100 %</td>
<td>TC - Tinned Copper</td>
<td>24</td>
<td>7x32</td>
</tr>
<tr>
<td>Lock Power</td>
<td>Tape</td>
<td>Alum / Poly</td>
<td>Beldfoil®</td>
<td>100 %</td>
<td>TC - Tinned Copper</td>
<td>24</td>
<td>7x32</td>
</tr>
</tbody>
</table>

### Inner Jacket Material

<table>
<thead>
<tr>
<th>Element</th>
<th>Material</th>
<th>Nominal Diameter</th>
<th>Ripcord</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Reader</td>
<td>PVC - Polyvinyl Chloride</td>
<td>0.211 in</td>
<td>Yes</td>
</tr>
<tr>
<td>Door Contact</td>
<td>PVC - Polyvinyl Chloride</td>
<td>0.132 in</td>
<td>Yes</td>
</tr>
<tr>
<td>REX/Spare</td>
<td>PVC - Polyvinyl Chloride</td>
<td>0.151 in</td>
<td>Yes</td>
</tr>
<tr>
<td>Lock Power</td>
<td>PVC - Polyvinyl Chloride</td>
<td>0.194 in</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Outer Jacket Material

| Nominal Diameter | 0.448 in |

### Electrical Characteristics

#### Conductor DCR

<table>
<thead>
<tr>
<th>Element</th>
<th>Nominal Conductor DCR</th>
<th>Nominal Inner Shield DCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Reader</td>
<td>16.3 Ohm/1000ft</td>
<td>13.9 Ohm/1000ft</td>
</tr>
<tr>
<td>Door Contact</td>
<td>16.4 Ohm/1000ft</td>
<td>16.1 Ohm/1000ft</td>
</tr>
<tr>
<td>REX/Spare</td>
<td>16.4 Ohm/1000ft</td>
<td>16.1 Ohm/1000ft</td>
</tr>
<tr>
<td>Lock Power</td>
<td>6.5 Ohm/1000ft</td>
<td>7.2 Ohm/1000ft</td>
</tr>
</tbody>
</table>

#### Capacitance

<table>
<thead>
<tr>
<th>Element</th>
<th>Nom. Capacitance Conductor to Conductor</th>
<th>Nom. Capacitance Conductor to Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Reader</td>
<td>25 pF/ft</td>
<td>45 pF/ft</td>
</tr>
<tr>
<td>Door Contact</td>
<td>34.5 pF/ft</td>
<td>62 pF/ft</td>
</tr>
<tr>
<td>REX/Spare</td>
<td>22.5 pF/ft</td>
<td>40 pF/ft</td>
</tr>
<tr>
<td>Lock Power</td>
<td>27 pF/ft</td>
<td>48.5 pF/ft</td>
</tr>
</tbody>
</table>

#### Current

<table>
<thead>
<tr>
<th>Element</th>
<th>Max. Recommended Current [A]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Reader</td>
<td>2A @ 25C ambient</td>
</tr>
<tr>
<td>Door Contact</td>
<td>2.2A @ 25C ambient</td>
</tr>
<tr>
<td>REX/Spare</td>
<td>2.2 Amps @ 25C ambient</td>
</tr>
<tr>
<td>Lock Power</td>
<td>4A @ 25C ambient</td>
</tr>
</tbody>
</table>

#### Voltage

<table>
<thead>
<tr>
<th>UL Description</th>
<th>UL Voltage Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Reader</td>
<td>300 V RMS</td>
</tr>
<tr>
<td>Door Contact</td>
<td>300 V RMS</td>
</tr>
<tr>
<td>REX/Spare</td>
<td>300 V RMS</td>
</tr>
<tr>
<td>Lock Power</td>
<td>300 V RMS</td>
</tr>
</tbody>
</table>

#### Temperature Range

- Operating Temp Range: 0°C To +75°C

#### Mechanical Characteristics

- Bulk Cable Weight: 97 lbs/1000ft
- Max Recommended Pulling Tension: 200 lbs
- Min Bend Radius/Minor Axis: 4.5 in

#### Standards

- NEC Articles: 800
- NEC(UL) Specification: CMR
Applicable Environmental and Other Programs

<table>
<thead>
<tr>
<th>Environmental Space</th>
<th>Indoor (Not Riser or Plenum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU Directive 2002/95/EC (RoHS):</td>
<td>Yes</td>
</tr>
<tr>
<td>EU Directive 2003/96/EC (BFR):</td>
<td>Yes</td>
</tr>
<tr>
<td>EU Directive 2011/65/EU (ROHS II):</td>
<td>Yes</td>
</tr>
<tr>
<td>EU Directive 2012/19/EU (WEEE):</td>
<td>Yes</td>
</tr>
<tr>
<td>EU Directive 2015/863/EU:</td>
<td>Yes</td>
</tr>
<tr>
<td>EU Directive Compliance:</td>
<td>Yes</td>
</tr>
<tr>
<td>EU RoHS Compliance Date (yyyy-mm-dd):</td>
<td>2005-04-01</td>
</tr>
<tr>
<td>MII Order #39 (China RoHS):</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Suitability

Suitability - Indoor: Yes

Flammability, LS0H, Toxicity Testing

UL Flammability: UL1666 Riser
ISO/IEC Flammability: IEC 60332-1-2
UL voltage rating: 300 V RMS

Plenum/Non-Plenum

Plenum (Y/N): No
Plenum Number: 658AFS

Part Number

Variants

<table>
<thead>
<tr>
<th>Item #</th>
<th>Color</th>
<th>UPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>558AFS 000100</td>
<td>Orange, White, Blue, Gray</td>
<td>612825164487</td>
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<tr>
<td>558AFS 000500</td>
<td>Orange, White, Blue, Gray</td>
<td>612825164494</td>
</tr>
</tbody>
</table>

Footnote: C - CRATE REEL PUT-UP.

Product Notes

Notes: Cold environment installation: When installing cables that have been stored at ambient temperatures of 32 degrees Fahrenheit (0 degrees Centigrade) or lower, Belden recommends conditioning of the cable for 12 hours at room temperature prior to individual cable leg separation.

History

Update and Revision: Revision Number: 0.250 Revision Date: 02-18-2020

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