Electrical Spring Connector 412

Data Sheet

Application
The 3M™ Electrical Spring Connector 412 will electrically connect copper conductors in a pigtail application.

Wire

**AWG Range**
Copper conductors only, No. 22 through 8 solid and/or stranded.
(See wire matrix for specific combinations)

**Metric Range**
Copper conductors only, .5mm$^2$ thru 6mm$^2$ ridged (solid or stranded).

Construction

**Spring** - Spring steel, corrosion-resistant coating
**Insulator** – PVC

Weight

0.0068 lbs (3.1 grams)

Performance Test

The following tests were performed to the specifications of UL Standard 486C and CSA Standard C22.2 No. 188.

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static Heating</td>
<td>Pass</td>
</tr>
<tr>
<td>Secureness</td>
<td>Pass</td>
</tr>
<tr>
<td>Pullout</td>
<td>Pass</td>
</tr>
<tr>
<td>Dielectric Voltage Withstand</td>
<td>Pass</td>
</tr>
<tr>
<td>Secureness of Insulation</td>
<td>Pass</td>
</tr>
<tr>
<td>Flammability</td>
<td>V2 Min.</td>
</tr>
</tbody>
</table>

Engineering Specification

3M Spring Connector 412 is capable of a 1 conductor termination or a 2 or more conductor connection in a pigtail application. The connector shall be UL listed and CSA certified as a pressure wire connector. The connector shall be rated 600 volts maximum for building wire and 1000 volts maximum for lighting fixtures. The connector shall have a maximum operating temperature of 105°C (221°F).

Installation Instructions

**Caution**

Turn power off before installing or removing terminal. All electrical work should be done according to appropriate electrical codes.

1. Strip wire insulation ½ inch.
2. Firmly grasp wires and ensure conductor ends are even. Conductors may be twisted or untwisted.
3. Place connector over the stripped conductor tips.
4. Turn connector on in a clockwise direction until secure.
5. To remove, turn connector counter-clockwise.

Regulatory Agencies

**UL Listed** as a Wire Connector, tested per UL Standard 486C, UL File No. E23438
Operating Temperature: 105°C (221°F)
Voltage Rating: 600 volts max building wire, 1000 volts max signs and fixtures.

**CSA Certified**
CSA Standard C22.2 No. 188, CSA File No. LR15503
Operating Temperature: 105°C (221°F)
Voltage Rating: 600 volts max building wire, 1000 volts max signs and fixtures.
Wire Matrix

Other Combinations

1 #16 w/ 1-2 #14 w/ 1 #12 or 10 1 #22 w/ 1 #18 w/ 1 #16
1 #22 w/ 1 #20 w/ 1-2 #16 1 #14 w/ 1-2 #12 w/ 1 #10
2 #14 w/ 1 #12 w/ 1 #10 1 #16 w/ 1 #12 w/ 1 #10
2 #16 w/ 2 #14 w/ 1 #12 2 #16 w/ 1 #12 w/ 1 #10
3 #16 w/ 1 #14 w/ 1 #12 4 #16 w/ 1 #12 w/ 1 #10
1 #20 sol w/ 1 #22 sol

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