

Solutions for Electronic Specialty Markets (ESM)

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[Printer-friendly format](#) **3M™ Electrical Spring Connector 412-Box Tan (100/box)**



[\[click to enlarge\]](#)

The 3M™ Electrical Spring Connector 412 will electrically connect copper conductors in a pigtail application. This Hex-Head Connector is capable of a 1 conductor termination or a 2 or more conductor connection in a pigtail application.

GTIN(UPC/EAN) : 0 00 51128 54451 8
3M Id : 80-6112-3772-0

Additional Information

What makes the 412 different from other tan connectors with hexagon shaped heads?

- A wider spring opening enables easier and faster insertion of larger wire combinations than with other tan connectors.
- The 412 is UL listed for up to four 12 awg solid and stranded wires.
- The 412 molded insulator resists warping and expansion when pushed to the upper limits of its wire

[Full Text . . .](#)

Characteristics

Agency Approvals	UL and CSA
China RoHS - Below MCV	Yes
Color	Tan
EU RoHS Compliant	Yes
Maximum Recommended Voltage Rating	600 Volt
Units per Box	100
Wire Range Capabilities	22 to 8

Other Tools

- What's New
- Sales Contacts
- U.S. Distributors

Learn More . . .

[Packaging Data](#)

[3M™ Electrical Spring Connector 412 - Data Sheet \(PDF 62.3 K\)](#)

[3M™ Wire Connector 412 - Flyer \(PDF 102.1 K\)](#)

Please Note:

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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, .5mm² thru 6mm² 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.

Static Heating	Pass
Secureness	Pass
Pullout	Pass
Dielectric Voltage Withstand	Pass
Secureness of Insulation	Pass
Flammability	V2 Min.

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.

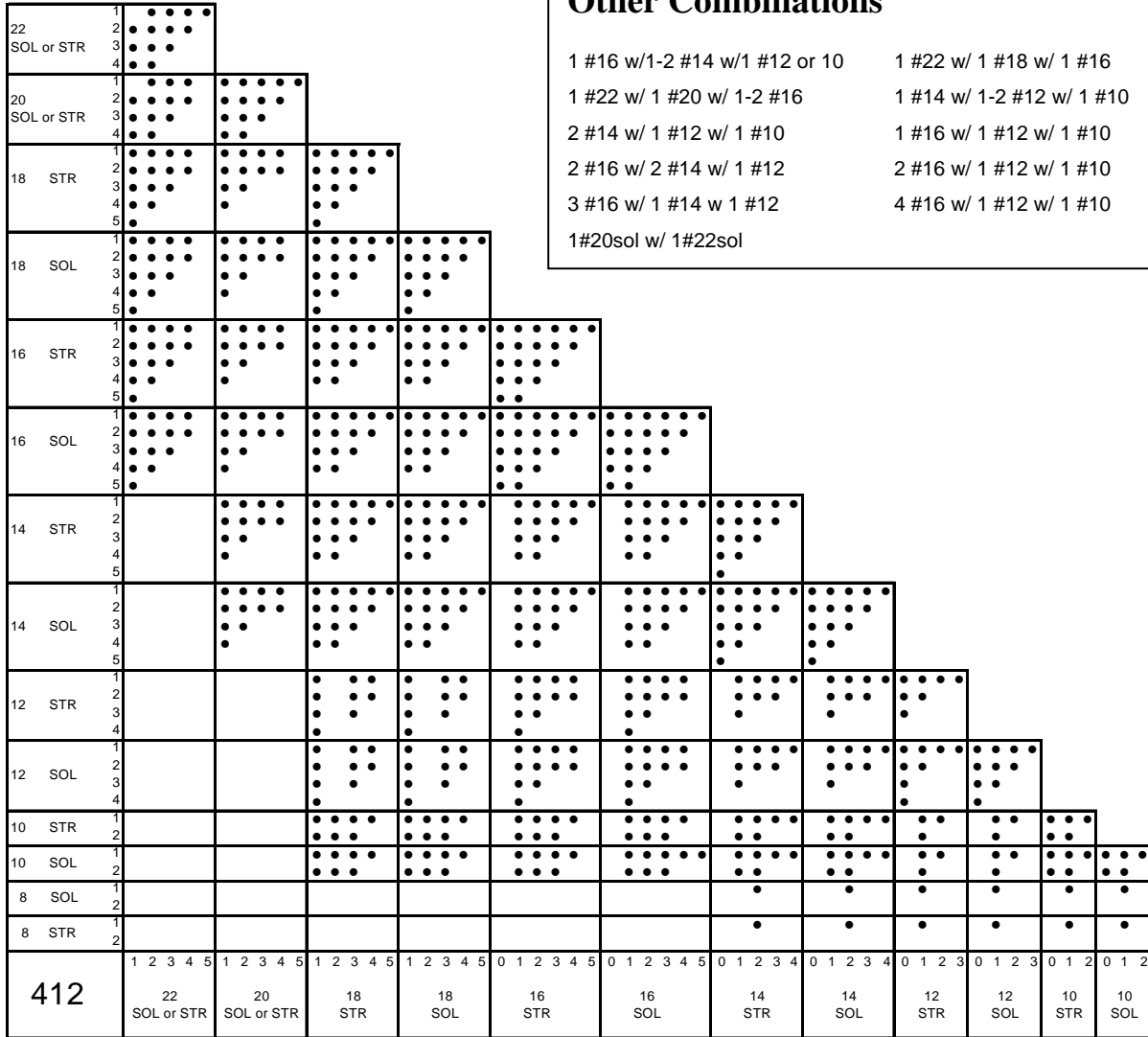
1. Strip wire insulation ½ inch.
2. Firmly grasp wires and ensure conductor ends are even. Conductors may be twisted or untwisted.
3. Place connector over the stripped conductor tips.
4. Turn connector on in a clockwise direction until secure.
5. To remove, turn connector counter-clockwise.

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 #20sol w/ 1 #22sol	

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