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 [Printer-friendly format](#) **3M™ Electrical Spring Connectors 512, Red, 100 per box, 1000 per case**



2-10#18, 2-7#16, 1-6#14, 1-5#12, 1-3#10, 1-2#8, 1#6 AWG.
 Designed for speed and efficiency, these connectors spin-on quickly and tighten-down easily. They're engineered for easy back-off, too. The live inner spring action delivers uniform holding power.

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


Contract Number : 512-BOX
 GTIN(UPC/EAN) : 0 00 54007 08161 6
 3M Id : 80-6101-4525-4

Additional Information

Learn More . . .

[Packaging Data](#)
[512 Spring Connector - Data Sheet \(PDF 215.9 K\)](#)
[Ordering Information for 3M 512 Spring Connectors - Product Selection Guide \(HTML 1.5 K\)](#)

Please Note:
 Adobe® Acrobat® Reader is required to view PDF documents.



Characteristics

Agency Approvals	UL, IEC, and CSA
Boxes per Case	10
China RoHS - Below MCV	Yes
Color	Red
EU RoHS Compliant	Yes

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Maximum Recommended Voltage Rating	600 Volt
Units per Box	100
Wire Range Capabilities	20 to 8

3M

512

Electrical Spring Connectors

Data Sheet



Application

Use a 512 connector to electrically connect two or more wire ends in a pigtail application and insulate the connection, or to insulate a single wire end.

Wire Range

AWG Range: Solid or stranded copper conductors only.
No. 20 thru No. 8 (0,75 mm² thru 6,0 mm²).

Construction

Spring - Spring Steel, Corrosion Resistant Coating
Insulator - Flame Retardant Nylon
Color - Red

Weight

.006 lb. (2,7 gm)

Engineering Specification

Electrical Spring Connector (as manufactured by 3M, part No. 512) shall be capable of connecting wires within the range of No. 20 thru No. 8 solid or stranded copper conductors in a pigtail application. The connector shall be constructed of an active (live) spring and covered by a polypropylene insulator. The spring shall have a corrosion resistant coating. The connector shall be UL Listed as a pressure cable connector and be CSA Certified. The connectors shall be voltage rated 600 volts maximum, building wire,

1000 volts maximum signs, fixtures, and luminaires. The connector shall have a maximum operating temperature of 105°C.

Regulatory Agencies

UL Listed as a Pressure Cable Connector
Tested per UL Standard 486C
UL File No. E23438

CSA Certified-CSA Standard C22.2 No. 0, 188-M1983

CSA File No. LR15503

Operating Temperature: 105°C (221°F)

Voltage Rating: 600 volts max. building wire

1000 volts max. signs and luminaires.

Flammability Rating: C22.2 No. 0.6 V-2

Classified in accordance with IEC

(International Electrotechnical Commission) publications 685-1 and 685-2-4. UL-IEC file No. E95240.

Operating Temperature: 105°C (221°F)

Voltage Rating: 600 volts max. building wire;

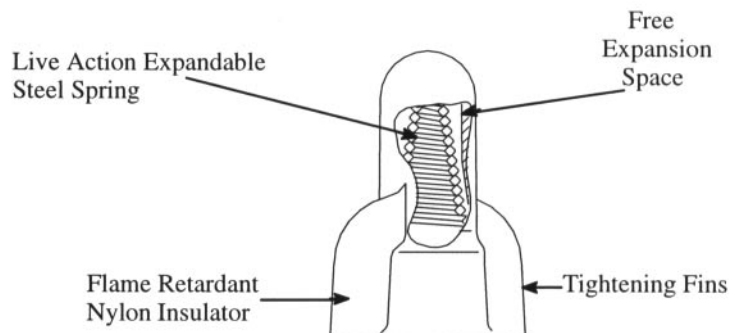
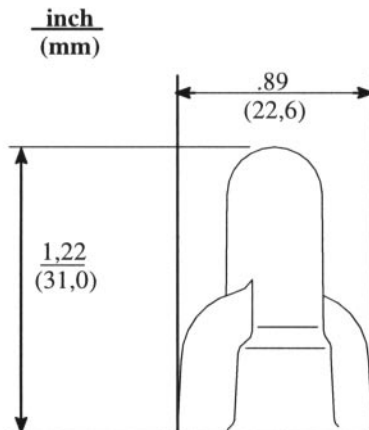
1000 volts max. signs and fixtures

Flammability Rating: UL94 V-2

Federal Specification W-S-610:

“Commercial package only”

Type	Class	Kind	Style
1	1	cu	G



Installation Instructions

⚠ WARNING

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

1. Strip wire insulation to length specified in chart to the right, according to conductor size.
2. Firmly grasp wires, making sure insulation ends are even and tightly bundled. (wires may be twisted or untwisted). Slip connector over wire tips.
3. Turn connector onto wires in a clockwise direction until secure.
4. To remove, turn connector counter-clockwise.

Conductor Size	Strip Length
20-16 AWG (0,75-1,5 mm ²)	3/4" (19,0 mm)
14-8 AWG (2,5-4,0 mm ²)	5/8" (15,9 mm)

Metric Wire Combinations

International Electrotechnical Commission



Rated Capacity: 2,0-16,0 mm²
Voltage Rating: 600 volts maximum
Reusability: Reusable for same capacity or larger
Wire Type: Copper only

See installation instructions for conductor strip lengths.

I.E.C. Metric Wire Matrix:
Twist-on connecting devices for the combination of rigid (solid or stranded) and flexible conductors.

Conductor Size	Quantity
0,75 mm ²	3-6
1,0 mm ²	2-6
1,5 mm ²	2-6
2,5 mm ²	2-6
4,0 mm ²	2-4
6,0 mm ²	2

Only AWG combinations are UL Listed or CSA Certified.