# 3M<sup>TM</sup> Electrical Spring Connectors 512

# Data Sheet

#### **Application**

Use a 3M<sup>TM</sup> Electrical Spring Connector 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 mm<sup>2</sup> thru 6,0 mm<sup>2</sup>).

#### Construction

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

#### Weight

.006 lb. (2,7 gm)

#### **Engineering Specification**

3M Electrical Spring Connector 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 flame-retardant nylon 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

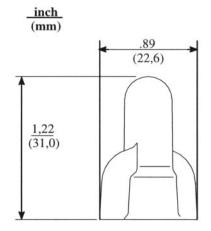
Operating Temperature: 105°C (221°F) Voltage Rating: 600 volts max. building wire 1000 volts max. signs and luminaires. Flammability Rating: C22.2 No. 0.6 V-2

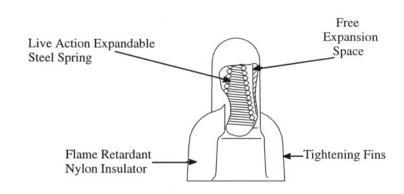
Classified in accordance with **IEC** (International Electrotechnical Commission) publications 685-1 and 685-2-4. UL-IEC file No. E95240.

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	





# 3M<sup>TM</sup> Electrical Spring Connector 512

**AWG Wire Combinations** Copper to Copper Conductors

....

. . . . . .

000000 00000 0000 ....

00000

. . . . . . .

....

....

....

0 0 0 0 0 0

....

. . . . . .

**0000** 

. . . . .

. . . . .

. . . . .

....

....

1 2 3 4 5 6

STR

...

. . .

**#** D D

. . . .

0000

. . . . .

. . . .

000

00

**9000** 

0000

000

00

0000

000

00000

0000

....

**# 0 0 0 0 0** 

00000

. . . . . . .

. . . . . .

....

0000

**+ + + - - -**

....

0 0 0 0 0

0000

....

....

....

....

....

1 2 3 4 5 6

SOL

...

. . .

**#** D D

⊕ □ □ □

0000

000

....

000

000

00

. . . . .

0000

000

00

0000

000

....

....

. . . .

⊕ ⊕ ⊕ □

000

....

....

...

....

....

1 2 3 4 5 6

16 SOL

⊕ □

⊕ ⊕ □

⊕ ⊕

...

...

1 2 3 4 5

14 STR

⊕ ⊕ □

⊕ ⊕ □

...

....

1 2 3 4 5

14 SOL

. .

⊕ □

0

00

⊕ ⊕

1 2 3 4

⊕ □

⊕ ⊕ □

00

00

⊕ ⊕

1 2 3 4

00

1 2 3

0

STR

. . . .

...

...

1 2 3 4 5 6

16 STR

**0** 0

...

00

00

000

⊕ ⊕ □

**B D** 

00

000

00

000

00

00000

0000

0000

00000

000000 00000

00

00

00

0

00

000

0000

0000

000 000

000

....

. .

**a b** 

000

00 0

00

00

SOL OR STR

18

18 SOL

16 SOL

14 SOL

12 STR

STR

10

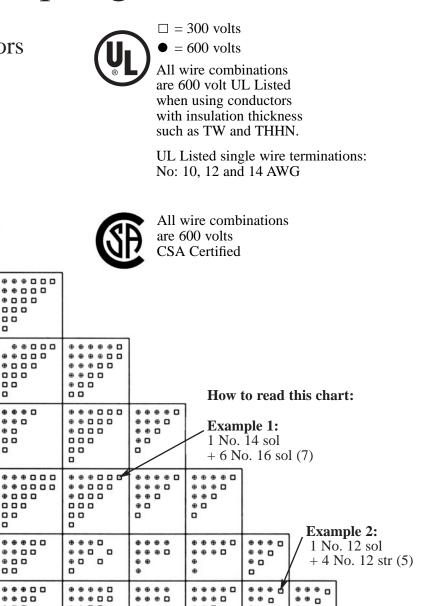
2

2

1 2 3 4 5 6

SOL OR STR

2



#### **Installation Instructions**

#### **MARNING**

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.
- 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 mm²)	3/4" (19,0 mm)	
14-8 AWG (2,5-4,0 mm <sup>2</sup> )	5/8" (15,9 mm)	

### Metric Wire Combinations

## International Electrotechnical Commission



Rated Capacity: 2,0-16,0 mm<sup>2</sup> 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.

<b>Conductor Size</b>	Quantity	
$0.75 \text{ mm}^2$	3-6	
1,0 mm <sup>2</sup>	2-6	
1,5 mm <sup>2</sup>	2-6	
2,5 mm <sup>2</sup>	2-6	
4,0 mm <sup>2</sup>	2-4	
6,0 mm <sup>2</sup>	2	

Only AWG combinations are UL Listed or CSA Certified.

3M is a trademark of 3M Company.



(UL) is a trademark of Underwriters Laboratories.



is a trademark of Canadian Standards Association.



is a trademark of International Electrotechnical Commission.

IMPORTANT NOTICE: All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product, which are not contained in 3M's current publications, or any contrary statements contained on your purchase order, shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture at the time of purchase. 3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. Except where prohibited by law, 3M will not be liable for any direct, indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.



**Electrical Markets Division** 6801 River Place Blvd. Austin, TX 78726-9000 800.245.3573 FAX: 800.245.0329 www.3M.com/electrical

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Terminals category:

Click to view products by 3M manufacturer:

Other Similar products are found below:

00-054007-01074-6 00-054007-70206-1 00-054007-70210-8 00-054007-70217-7 00-054007-70226-9 00-054007-70228-3 00-054007-70248-1 00-054007-70256-6 00-054007-70301-3 00-054007-70316-7 00-054007-49560-4 00-054007-70209-2 00-054007-70225-2 00-054007-70248-7 00-054007-70231-3 00-054007-70241-2 00-054007-70242-9 00-054007-70244-3 00-054007-70246-7 00-054007-70263-4 00-054007-70288-7 00-054007-70290-0 00-054007-70300-6 00-054007-70304-4 01-2065-1-0216 01-2900-1-04412 00581P0075 600TS-10 60205-1 604200-1 605601-1 60598-1-CUT-TAPE 61314-6-C 61810-3 61-S 62149-1 626-0194 62-NBM-A 63-S 640179-1 M55155/059103 M55155/079C01 M55155/099B03 M55155/099H02 M55155/109H01 M55155/109H02 M55155/109H02 M55155/12XH05 M55155/16XH02 M55155/29-SS M55155/29XJ08