

# 3M™ Secure Grip Wire Connector SG-R

## Data Sheet

March 2019

### Applications

3M™ Secure Grip Wire Connector SG-R will electrically connect and insulate copper conductors in a pigtail application. The connector has a live spring for strong reliable connections.

AWG Range: Copper conductors only, No. 18AWG through 8AWG solid and/or stranded.  
(See wire matrix for specific combinations)

Metric Range: Copper conductors only, 1.0mm<sup>2</sup> thru 6.0mm<sup>2</sup> (solid and/or stranded). Only AWG sizes are UL Listed.

### Agency Approvals & Self Certifications

- UL Listed as a Wire Connector
- Tested per UL Standard 486C, UL File No. E23438
- For RoHS and REACH information, please visit [www.3M.com/regs](http://www.3M.com/regs)

### Specifications

3M™ Secure Grip Wire Connector SG-R is capable of a 2 or more conductor connection in a pigtail application. The connector shall be UL Listed and 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).

#### Construction:

Spring: Spring steel, corrosion-resistant coating  
Insulator: Red Polypropylene  
Weight: 0.007 lbs. (3,3 grams)

**Performance Test** The following tests were conducted to the specifications of UL Standard 486C

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

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## Installation Instructions:



### Caution

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

1. 18-16 AWG Strip wire insulation 3/4 inch. 14-8 AWG Strip wire insulation 5/8 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.

## Combination Chart:

18 AWG	1 2 3 4					
16 AWG	1 2 3 4					
14 AWG	1 2 3 4 5					
12 AWG	1 2 3 4					
10 AWG	1 2					
8 AWG	1					
SG-R	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4	1 2	1 2
	18 AWG	16 AWG	14 AWG	12 AWG	10 AWG	8 AWG

### Other Combinations:

1 #10 w/ 1 #14 and 1-3 #16  
1 #10 w/ 1 #12 and 1 #14  
1 #12 w/ 1 #14 and 1-4 #16  
2 #12 w/ 1 #14 and 1-2 #16

1 #10 w/ 2 #14 and 1 #16  
1 #10 w/ 1 #12 and 1-2 #16  
1 #12 w/ 1 #14 and 1-3 #16

Read across then down  
2 + 3 = 5 #12AWG

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<b>Shelf Life &amp; Storage</b>	The 3M™ Secure Grip Wire Connector SG-R has a 5-year shelf life from date of manufacture when stored in a humidity controlled storage (10°C/50°F to 27°C/80°F and <75% relative humidity).
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<b>Availability</b>	From your local distributor; or from 3M.com/electrical [Where to Buy] or call 1.800.245.3573.
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