

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, 1.0mm² thru 6.0mm² (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

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.

3M™ Secure Grip Wire Connector SG-R

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

3M™ Secure Grip Wire Connector SG-R

Shelf Life & Storage	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).
---------------------------------	--

Availability	From your local distributor; or from 3M.com/electrical [Where to Buy] or call 1.800.245.3573.
---------------------	---

3M is a trademark of 3M Company.

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

Austin, TX
800 245.3573
FAX: 800 245.0329
www.3M.com/electrical

Please recycle
© 3M 2019. All rights reserved.
78-9237-1593-8 Rev A