3M™ Secure Grip Wire Connector SG-T

Data Sheet March 2019

Applications

3M™ Secure Grip Wire Connector SG-T 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. 22AWG through 8AWG solid and/or stranded. (See wire matrix for specific combinations)

Metric Range: Copper conductors only, .5mm² thru 6mm² (solid 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-T 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: Tan Polypropylene Weight: 0.005 lbs. (2,2 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:

A Caution

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

- 1. 22-16 AWG Strip wire insulation 5/8 inch. 14-8 AWG 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.

Combination Chart:

| Combi | | II C. | | | | | | | | | | |
|------------------|---|-------------------------------|------------------------|------------------------|------------------------|---|------------------------|------------------------|--|----------------------|--------------------------|---|
| 22 SOL or STR | 1 2 | | | | | | | | | | | |
| 20 SOL or STR | 1 2 3 4 | ••• | | | Ot | her Combination | s: | | | | | |
| 18 STR | 1 | ••• | • • • • | | 2 ‡ 2 ‡ | 1#16 w/ 1-2 #14 w/ 1 #12 or #10 2 #14 w/1 #12 w/1 #10 2 #16 w/2 #14 w/ 1 #12 3#16 w/ 1#14 w/ 1 #12 | | | 1 #22 w/ 1 #20 w/ 2 #16 1#16 w/ 1 #12 w/ 1 #10 2#16 w/ 1#12 w/ 1 #10 3#16 w/ 1 #12 w/ 1 #10 | | | |
| 18 SOL | 1 | ••• | • • • • | • • • • | | | | | | | | |
| 16 STR | 1 • • • • • • • • • • • • • • • • • • • | ••• | • • • • | • • • • | | | | | | | | |
| 16 SOL | 1 | • • • • | • • • • | • • • • | • • • • | • | | | | | | |
| 14 STR | 1 2 3 4 5 | • • • • | • • • • • | • • • • • | • • • • | • • • • | • • • • | | | | | |
| 14 SOL | 1 2 3 4 5 | • • • • | • • • • • | • • • • • | • • • • | • | | | | | | |
| 12 STR | 1 2 3 4 | | • • • | • • • | • • • • | • • • • | • • • • | • • • • | ••• | | | |
| 12 SOL | 1 2 3 4 | | • • • | • • • | • • • • | •••• | • • • • | • • • • | • | | | Read across then down 1 #10 w/ 2 #12 |
| 10 STR 10 | 1 2 | | • • • • | • • • • | • • • • | • • • | • • • • | •••• | • | • • | •• | •• |
| SOL 8 SOL | 1 2 | | • • • | • • • | ••• | ••• | • | • | • | • | | • |
| 8 STR | 1 2 | | | | | | • | • | • | • | • | • |
| SG-T | 1 2 3 4 5 | 1 2 3 4 5 20 SOL or STR | 1 2 3 4 5 18 STR | 1 2 3 4 5 18 SOL | 0 1 2 3 4 16 STR | 5 0 1 2 3 4 5 16 SOL | 0 1 2 3 4 14 STR | 0 1 2 3 4 14 SOL | 0 1 2 3 12 STR | 0 1 2 3 12 SOL | 0 1 2 0 10 1 STR S | 0 |
| | | | · | | | | l | | | | | _ |

3M™ Secure Grip Wire Connector SG-T

Shelf Life & Storage

The 3M[™] Secure Grip Wire Connector SG-T 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.

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