

## Solutions for Electronic Specialty Markets (ESM)

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- **3M™ Wire Connectors**

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## [Printer-friendly format](#) **3M™ "Performance Plus" Wire Connector B/G+BOX, 50 per box, 500 per case**

4#14-2#6-3#8 AWG, Blue with Gray skirt, 50 per box, 500 per case



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

GTIN(UPC/EAN) : 0 00 54007 43150 3  
3M Id : 80-6109-8433-0

### Additional Information

B/G + covers both the large blue and gray connectors. This simplifies selection of the right connector for a wide range of wiring jobs. There's also less inventory to manage, and a better chance you'll have the connector you need to do every job.

### Learn More . . .

[Packaging Data](#)

[3M B/G Performance+ Wire Connector - Data Sheet \(PDF 69.6 K\)](#)

[Ordering Information for 3M B/G+ Spring Connectors - Product Selection Guide \(HTML 1.6 K\)](#)

#### Please Note:

Adobe® Acrobat® Reader is required to view PDF documents.



### Characteristics

|   |                      |
|---|----------------------|
| <b>Agency Approvals</b>                   | UL, CE, IEC, and CSA |
| <b>Boxes per Case</b>                     | 10                   |
| <b>China RoHS - Below MCV</b>             | Yes                  |
| <b>Color</b>                              | Blue/Gray            |
| <b>EU RoHS Compliant</b>                  | Yes                  |
| <b>Maximum Recommended Voltage Rating</b> | 600 Volt             |
| <b>Units per Box</b>                      | 50                   |

### Other Tools

- What's New
- Sales Contacts
- U.S. Distributors





# B/G<sup>+</sup> Wire Connector



LISTED  
314R

## Data Sheet

### Application

Use a 3M™ B/G<sup>+</sup> Wire Connector to electrically connect two or more conductor ends in a pigtail application and insulate the connection.

### Wire

AWG Range

COPPER conductors only, No. 14 thru No. 6 sol. and/or str.

METRIC Range

COPPER conductors only, 2,5 mm<sup>2</sup> thru 10,0 mm<sup>2</sup> ridged (solid or stranded) and flexible.

(see wire matrix for specific wire combinations)

### Construction

#### Spring

Spring steel, corrosion resistant coating

#### Insulator

Flame retardant, polypropylene and thermoplastic elastomer, color coded blue/gray

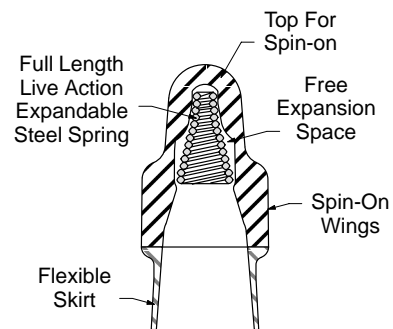
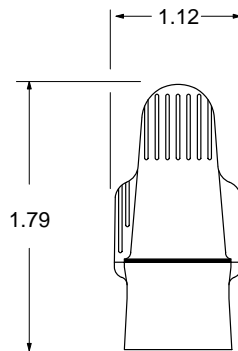
### Weight

.0124 lbs. (5,647 g)

### Performance Test

The following tests were performed to the specification of UL Standard 486C and CSA Standard C22.2 No. 188-M1983.

|                              |      |
|------------------------------|------|
| Static-Heating               | Pass |
| Secureness                   | Pass |
| Pullout                      | Pass |
| Dielectric Voltage Withstand | Pass |
| Secureness-Of-Insulation     | Pass |
| Flammability                 | Pass |



### Other Test

|                                 |      |
|---------------------------------|------|
| Salt Spray                      | Pass |
| Per MIL-STD-1344A Method 1001.1 |      |
| Vibration                       | Pass |
| Per MIL-STD-1344A Method 2005.1 |      |
| UV Exposure                     | Pass |
| Per ASTM G-53-77                |      |

### Fluid Immersion Test

Connectors were immersed in the following chemicals for seven days at 23°C ± 2°C with no affect on appearance or loss of material strength.

### Typical Reagents and Materials From ASTM D 543-87 and MIL-STD-1344A

- Acetic Acid
- Acetone
- Detergent Solution, Heavy Duty
- Ethyl Alcohol (95%)
- Ethyl Alcohol (50%)
- Heptane
- Hydrogen Peroxide Solution 28%
- Methyl Alcohol
- Sodium Hydroxide Solution
- Mineral Spirit
- Lubricating Oil

### Engineering Specification

3M B/G<sup>+</sup> wire connector is capable of connecting two or more wires in a pigtail application, in the wire range of No. 14 thru No. 6 AWG solid and/or stranded copper conductors. The connector shall be constructed of an active (live) spring. With a corrosion resistant coating. The connector shall be UL LISTED and CSA Certified as a pressure wire connector. The connector shall be voltage rated 600 volts maximum, building wire, 1000 volts maximum, signs, lighting fixtures (luminaries). The connector shall have a maximum operating temperature of 105°C (221°F).

### Regulatory Agencies

#### UL Listed

as a Pressure Wire Connector tested per UL Standard 486C  
UL File No. E23438

OPERATING TEMPERATURE:  
105°C (221°F)

#### VOLTAGE RATING:

600 volts max. building wire  
1000 volts max. signs, lighting fixtures (luminaries)

FLAMMABILITY RATING:  
UL94 V-2

**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 lighting  
fixtures (luminaries)

FLAMMABILITY RATING:  
C22.2 No. 0.6 V-2

**Federal Specification W-S-610**  
"Commercial Package Only"

| Type | Class | Kind | Style |
|------|-------|------|-------|
| 1    | 1     | cu   | G     |

| Metric Wire Combination |   |                      |           |
|-------------------------|---|----------------------|-----------|
| Cross section capacity  | 10,0 mm <sup>2</sup> through 31,6 mm <sup>2</sup> |                      |           |
| Conductor combinations  | Quantity  | Size                 | Type      |
|                         | 3 – 6   | 2,5 mm <sup>2</sup>  | sol./str. |
|                         | 2 – 5   | 4,0 mm <sup>2</sup>  | sol./str. |
|                         | 2 – 4   | 6,0 mm <sup>2</sup>  | sol./str. |
|                         | 2   | 10,0 mm <sup>2</sup> | sol./str. |

\* Only AWG wire size combinations are UL LISTED or CSA Certified.

**Installation Instructions**

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

- Strip wire insulation 7/8" (22,2 mm).
- Firmly grasp wires, making sure insulation ends are even and tightly bundled. (Wires may be twisted or untwisted.) Lead stranded wires slightly. Slip the connector over wire tips.
- Turn connector onto wires in clockwise direction until secure.
- To remove, turn connector counter-clockwise.

|        |   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |       |  |
|--------|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|--|-------|--|
| 14 STR | 1 | ● ● ● ● |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |       |  |
|        | 2 | ● ● ● ● |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |       |  |
| 14 SOL | 1 | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         |  |  |       |  |
|        | 2 | ● ● ● ● | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |  |  |       |  |
| 12 STR | 1 | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         |  |  |       |  |
|        | 2 | ● ● ● ● | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |  |  |       |  |
| 12 SOL | 1 | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         |  |  |       |  |
|        | 2 | ● ● ● ● | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |  |  |       |  |
| 10 STR | 1 | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         |  |  |       |  |
|        | 2 | ● ● ● ● | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |  |  |       |  |
| 10 SOL | 1 | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         |  |  |       |  |
|        | 2 | ● ● ● ● | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |  |  |       |  |
| 8 STR  | 1 | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         |  |  |       |  |
|        | 2 | ● ● ● ● | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |  |  |       |  |
| 6 STR  | 1 | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         |  |  |       |  |
|        | 2 | ● ● ● ● | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |         | ● ● ● ● |  |  |       |  |
| B/G+   | 1 | 1       | 2       | 3       | 4       | 1       | 2       | 3       | 4       | 1       | 2       | 3       | 1       | 2       | 3       | 1       | 2       | 3       | 1       |  |  |       |  |
|        |   | 14 STR  |         |         |         | 14 SOL  |         |         |         | 12 STR  |         |         | 12 SOL  |         |         | 10 STR  |         |         | 10 SOL  |  |  | 8 STR |  |

UL LISTED as a Pressure Wire Connector. CSA Certified. Copper conductors only.  
Operating Temperature: 105°C maximum  
Voltage Rating: 600 volts maximum in building wire  
1000 volts maximum in signs and lighting fixtures (luminaries)



Underwriters Laboratories  
Standard NO. UL 486C  
3M File NO. E23438



Canadian Standards  
Association  
Standard NO. 22.2  
NO. 188-M1983  
3M File NO. LR15503



IEC Publications  
685-1 and 685-2-4  
3M File NO. E95240



PASSPORT  
TO  
EUROPEAN UNION  
COUNTRIES

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