# **3M**

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

# **Data Sheet**

# **Application**

Use  $3M^{TM}$  Wire Connectors  $B/G^+$  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

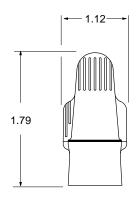
#### Weight

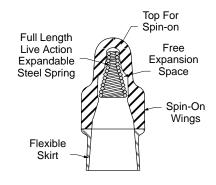
.0124 lbs. (5,647 g)

#### **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





#### **Fluid Immersion Test**

Connectors were immersed in the following chemicals for seven days at  $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$  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 connectors are 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 corrosionresistant coating. The connector shall be UL Listed and CSA Certified as a pressure wire connector. The connector shall be voltage rated 600 volts maximum, for building wire, 1000 volts maximum, for signs, lighting fixtures (luminaires). 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., for building wire 1000 volts max., for signs, lighting fixtures (luminaires).

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	10,0 mm <sup>2</sup> through 31,6 mm <sup>2</sup>				
Conductor combinations	Quantity	Size	Туре			
	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.			

### **Installation Instructions**

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

- 1. Strip wire insulation 7/8" (22,2 mm).
- Firmly grasp wires making sure insulation ends are even and tightly

14 2 STR 3		2. 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.							
1		3. Turn connector onto wires in clockwise direction until secure.							
14 2 SOL 3			<b>4.</b> To	remove, tui	rn connector	counter-clo	ockwise.		
1	•••	• • •	• •	UL LISTE	ED as a Pressur	e Wire Connec	tor. CSA Certif	fied. Copper co	onductors only.
12 <sup>2</sup> STR <sup>3</sup>				Operating	Temperature:	105°C max	ximum		
STR 3 4 5				Voltage Rating 600 volts maximum in building wire 1000 volts maximum in signs and lighting fixtures (l			ng fixtures (luminaries)		
1 12 2 SOL 3 4									
10 1 STR 2 3									
10 1 SOL 2 3	****								
8 1 STR 2	••••	••••	***	***	***	***	••		
6 1 STR 2			•••	•••	• • •	•••	• •	•	
B/G+	1 2 3 4 14 STR	1 2 3 4 14 SOL	1 2 3 12 STR	1 2 3 12 SOL	1 2 3 10 STR	1 2 3 10 SOL	1 2 8 STR	1 6 STR	



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

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