3M

B/G⁺ Wire Connector









Data Sheet

Application

Use a 3MTM B/G⁺ 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 mm² thru 10,0 mm² 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

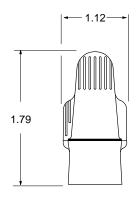
Weight

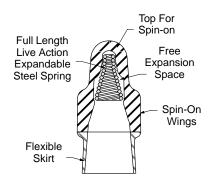
.0124 lbs. (5,647 g)

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 $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 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⁺ 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	10,0 mm ² through 31,6 mm ²				
Conductor combinations	Quantity	Size	Туре			
	3 – 6	2,5 mm ²	sol./str.			
	2 – 5	4,0 mm ²	sol./str.			
	2 – 4	6,0 mm ²	sol./str.			
	2	10,0 mm ²	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.

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

14 STR	2 3 4	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										
SOL										
	4	•••	•••		1					
	1	• • •	• • •	• •	UL LISTED as a Pressure Wire Connector. CSA Certified. Copper conductors only.					
12 STR	2 3				Operating	Temperature:	105°C max	ximum		
318	4				Voltage R	ating		naximum in bu		
	5	•	•	•		1	1000 volts	maximum in s	igns and lightii	ng fixtures (luminaries)
	1	• • •	• • •	• •	• •					
12	2 3									
SOL	4									
	5	•	•	•	•		1			
10	1	••••	••••	• •	• •	• •				
STR	2	••••	••••							
	3							1		
10	1			•••	• • •	•••	• • •			
SOL	2	••••	••••							
8 STR	1 2	••••	••••							
SIR	_									
	1			• • •	• • •	• • •	• • •	• •	•	
6 STR										
		1 2 3 4	1 2 3 4	1 2 3	1 2 3	1 2 3	1 2 3	1 2	1	
B/G	2+	1 2 3 4	1 2 3 4	1 2 3	1 2 3	1 2 3	1 2 3	'	1	
	J	14 STR	14 SOL	12 STR	12 SOL	10 STR	10 SOL	8 STR	6 STR	
		316	JOL	JIK	JUL	JIK	JUL	JIK	JIN	



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

Important Notice to Purchaser:

All statements, technical information and recommendations related to the Seller's products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use. The user assumes all risks and liability whatsoever in connection with such use.

Any statements or recommendations of the Seller which are not contained in the Seller's current publications shall have no force or effect unless contained in an agreement signed by an authorized officer of the Seller. The statements contained herein are made in lieu of all warranties expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose which warranties are hereby expressly disclaimed.

SELLER SHALL NOT BE LIABLE TO THE USER OR ANY OTHER PERSON UNDER ANY LEGAL THEORY, INCLUDING BUT NOT LIMITED TO NEGLIGENCE OR STRICT LIABILITY, FOR ANY INJURY OR FOR ANY DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES SUSTAINED OR INCURRED BY REASON OF THE USE OF ANY OF THE SELLER'S PRODUCTS..



Electrical Products Division

6801 River Place Blvd. Austin, TX 78726-9000 www.mmm.com/elpd



Printed on 50% recycled waste paper, including 10% post-consumer waste paper.