

3M™ Wire Connector T/R+ (Tan/Red)



Data Sheet

Application

Use a 3M™ Wire Connector T/R+ to electrically connect two or more conductor ends in a pigtail application and insulate the connection.

Wire

AWG Range: COPPER conductors only, No. 22 thru No. 8 solid and/or stranded (see wire matrix for specific wire combinations).

METRIC Range: COPPER conductors only, 0,5 mm² thru 6,0 mm² ridged (solid) and flexible (stranded).

Construction

Spring - Spring steel, corrosion resistant coating
Insulator: - Flame retardant, polypropylene, tan and thermoplastic elastomer, red

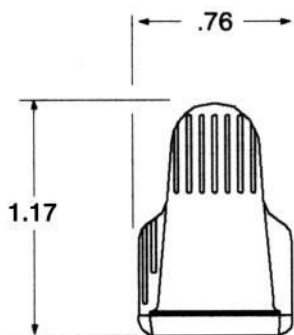
Weight

.0068 lbs. (3.1 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 Tests:

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

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.

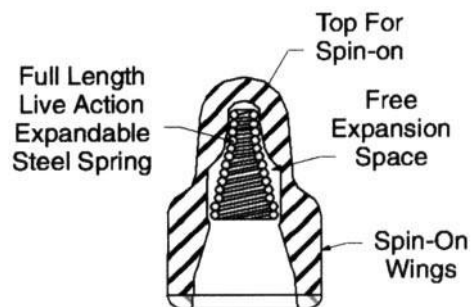
Typical Reagents and Materials

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 Wire Connector T/R+ is capable of connecting two or more wires in a pigtail application, in the wire range of No. 22 thru No. 8 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 and 1000 volts maximum signs and lighting fixtures (luminaries). The connector shall have a maximum operating temperature of 105°C (221°F).



Installation Instructions

CAUTION

Working around energized systems may cause serious injury or death. Installation should be performed by personnel familiar with good safety practice in handling electrical equipment. De-energize and ground all electrical systems before installing product.

1. Strip wire insulation 1/2".
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.
3. Turn connector onto wires in clockwise direction until secure.
4. To remove, turn connector counter-clockwise.

Regulatory Agencies

UL Listed as a Pressure Cable 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 and fixtures 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 luminaires.

Flammability Rating: C22.2 No. 0.6 V-2

Operating Temperature: 105°C (221°F)

Voltage Rating: 600 volts max. building wire;
1000 volts max. signs and fixtures Flammability
Rating: UL94 V-2

Federal Specification W-S-610:

“Commercial package only”

Type	Class	Kind	Style
1	1	Cu	G

Metric Wire Combinations

Copper Conductors Only

Cross Section Capacity	
Minimum	Maximum
2.0mm ²	12.5mm ²

Conductor Combinations		
Quantity	Size	Type
6	0,5mm ²	sol/str
3-6	0,75mm ²	sol/str
2-6	1,0mm ²	sol/str
2-6	1,5mm ²	sol/str
2.5	2,5mm ²	sol/str
2.3	4.0 mm ²	sol/str

Only AWG combinations are UL Listed or CSA Certified.

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