



R/Y+ Wire Connector

Data Sheet



Application

Use a 3M™ R/Y+ 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. 22 thru No. 8 sol. and/or str.

METRIC Range

COPPER conductors only, 0,5 mm² thru 6,0 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 red/yellow

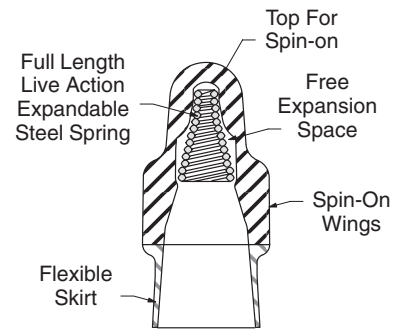
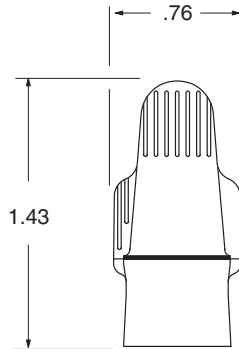
Weight

.0071 lbs. (3,21 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 1001.1 Vibration	Pass
Per MIL-STD-1344A Method 2005.1 UV 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 R/Y+ wire connector 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, 1000 volts maximum, signs and 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 and lighting fixtures (luminaries)

FLAMMABILITY RATING:
UL94 V-2

CSA Certified

CSA Standard C22.2 No. 188-M1983

CSA File No. LR15503

OPERATING TEMPERATURE:

105°C (221°F)

VOLTAGE RATING:

600 volts max. building wire

1000 volts max. signs, lighting fixtures and 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	2,0 mm ² through 16,0 mm ²		
Conductor combinations	Quantity	Size	Type
	5 - 7	0,5 mm ²	sol./str.
	3 - 7	0,75 mm ²	sol./str.
	2 - 8	1,0 mm ²	sol./str.
	2 - 7	1,5 mm ²	sol./str.
	2 - 5	2,5 mm ²	sol./str.
	2 - 4	4,0 mm ²	sol./str.
	2	6,0 mm ²	sol./str.

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

22 SOL or STR	1 2 3 4 5																			
20 SOL or STR	1 2 3 4 5																			
18 STR	1 2 3 4 5 6																			
18 SOL	1 2 3 4 5 6																			
16 STR	1 2 3 4 5 6																			
16 SOL	1 2 3 4 5 6																			
14 STR	1 2 3 4 5 6																			
14 SOL	1 2 3 4 5 6																			
12 STR	1 2 3 4																			
12 SOL	1 2 3 4																			
10 STR	1 2 3																			
10 SOL	1 2 3																			
8 STR	1 2																			
R/Y+	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5	1 2 3 4 5	1 2 3 4	1 2 3 4	1 2	1 2 3	1							
	22 STR or SOL	20 STR or SOL	18 STR	18 SOL	16 STR	16 SOL	14 STR	14 SOL	12 STR	12 SOL	10 STR	10 SOL	8 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 3/4" (19,0 mm).
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.

°C maximum

1000 volts maximum in signs, lighting fixtures and luminaries



LISTED
314R

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

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

3M

Electrical Markets Division

6801 River Place Blvd.
Austin, TX 78726-9000
800-626-8381
Fax 800-828-9329
www.3M.com/electrical



*Recycled paper
40% Pre-consumer waste paper
10% Post-consumer waste paper*

Litho in USA
© 3M 2005 78-8121-1126-4