



# 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 mm<sup>2</sup> thru 6,0 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 red/yellow

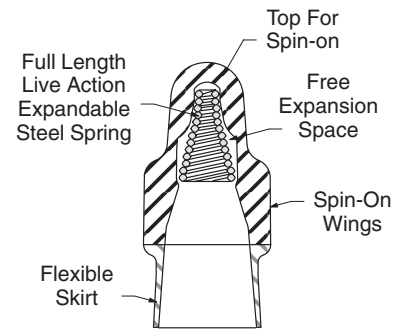
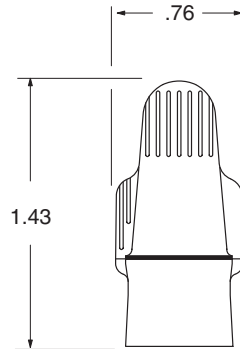
### Weight

.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"

<b>Type</b>	<b>Class</b>	<b>Kind</b>	<b>Style</b>
1	1	cu	G

<b>Metric Wire Combination</b>			
Cross section capacity	2,0 mm <sup>2</sup> through 16,0 mm <sup>2</sup>		
Conductor combinations	Quantity	Size	Type
	5 - 7	0,5 mm <sup>2</sup>	sol./str.
	3 - 7	0,75 mm <sup>2</sup>	sol./str.
	2 - 8	1,0 mm <sup>2</sup>	sol./str.
	2 - 7	1,5 mm <sup>2</sup>	sol./str.
	2 - 5	2,5 mm <sup>2</sup>	sol./str.
	2 - 4	4,0 mm <sup>2</sup>	sol./str.
	2	6,0 mm <sup>2</sup>	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																			
<b>R/Y+</b>	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 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



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