3M Wire Connector R/Y+

Data Sheet

Application

Use 3M[™] Wire Connector R/Y⁺ 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, $0,5 \text{ mm}^2$ thru $6,0 \text{ mm}^2$ 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



Fluid Immersion Test

Connectors were immersed in the following chemicals for seven days at $23^{\circ}C \pm 2C$ with nofact 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 connectors are 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 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 and 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. building wire 1000 volts max. signs and lighting fixtures (luminaires).

Flammability Rating: UL94 V-2

CSA Certified	Metric Wire Combination						
CSA Standard C22.2 No. 188-M1983 CSA File No. LR15503	Cross section capacity	2,0 mm ² through 16,0 mm ²					
OPERATING TEMPERATURE:	Conductor combinations	Quantity	Size	Туре			
105°C (221°F)		5 - 7	0,5 mm ²	sol./str.			
VOLTAGE RATING:		3 - 7	0,75 mm ²	sol./str.			
600 volts max. building wire 1000 volts max. signs, lighting fixtures and		2 - 8	1.0 mm ²	sol./str.			
luminaries		2 - 7	1.5 mm ²	sol./str.			
FLAMMABILITY RATING:		2 - 5	2.5 mm ²	sol./str.			
C22.2 No. 0.6 V-2		2-4	4.0 mm ²	sol./str.			
Federal Specification W-S-610			, -				
"Commercial package Only" Type Class Kind Style		2	6,0 mm ²	sol./str.			
1 1 cu G	* Only AWG wire size combinations are UL LISTED or CSA Certified.						

22 SOL 3 or STR

20 SOL

or STR

18 STR 34

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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

18 SOL	2 3 4 5 6	•••	••			3. Turn connector onto wires in clockwise direction until secure.									
16 STR	1 2 3 4 5 6						°C maximum 1000 volts maximum in signs, lighting fix-								
16 SOL	2 3	• • • • • • • • •	•••					tures and luminaries							
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 22 STR or SOL	1 2 3 4 5 6 20 STR or SOL	1 2 3 4 5 6 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 14 STR	1 2 3 4 5 14 SOL	1 2 3 4 12 STR	1 2 3 4 12 SOL	1 2 10 STR	1 2 3 10 SOL	1 8 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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