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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# Scotchlok™

## Insulated Electrical Spring Connector R (Red)

### Data Sheet



#### Application

Use a Scotchlok™ connector R to electrically connect two or more conductor ends in a pigtail application and insulate the connection, or insulate a single conductor end.

#### Wire Range

AWG Range: solid or stranded copper conductors only. No. 18 thru No. 10 (1,0 mm<sup>2</sup> thru 6,0 mm<sup>2</sup>)

#### Construction

- Spring** Spring steel, Corrosion resistant coating
- Shell** Steel, Corrosion resistant coating
- Insulator** Flame Retardant Flexible Polyvinyl Chloride  
Color- red

#### Weight

.0084 lb. (3.81 gm)

#### Engineering Specification

Scotchlok Electrical Spring Connector (3M part No. Scotchlok R) capable of connecting two or more wires in a pigtail application, in the wire range of No. 18 thru No. 10 AWG solid or stranded copper conductors. The connector shall be constructed of an active (live) spring and a steel shell covered by a vinyl insulator. The spring shall have a corrosion

resistant coating. The connector shall be UL Listed and CSA Certified as a pressure cable connector. The connector shall be voltage rated 600 volts maximum, building wire, 1000 volts maximum, signs, fixtures and luminaires. The connector shall have a maximum operating temperature of 105°C.

#### 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

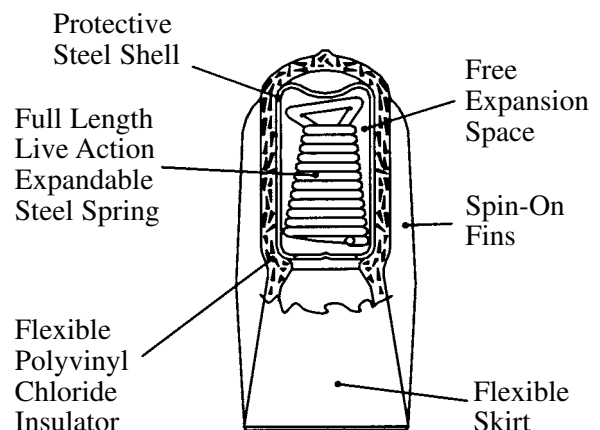
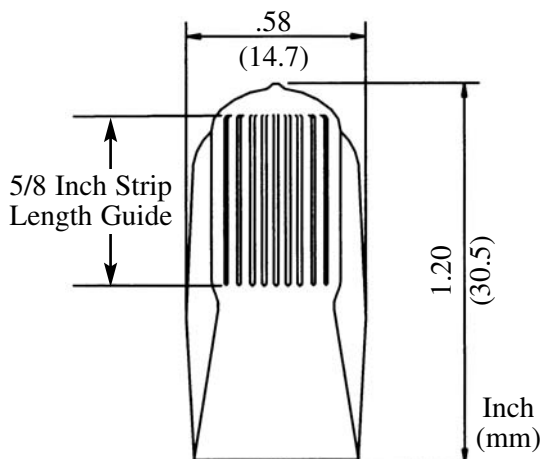
**CSA Certified**-CSA Standard C22.2 No. 0, 188-M1983

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

#### Federal Specification W-S-610:

“Commercial package only”

Type	Class	Kind	Style
1	1	cu	G





# Scotchlok™ Insulated Electrical Spring Connector R

AWG Wire Combinations  
Copper to Copper Conductors



□ = 300 volts  
● = 600 volts

All wire combinations are 600 volt UL Listed when using conductors with insulation thickness such as TW and THHN.

UL Listed single wire terminations:  
No: 10, 12 and 14 AWG



All wire combinations are 600 volts CSA Certified

18 STR	1																				
	2																				
	3		□																		
	4		□ □																		
	5		□ □ □																		
18 SOL	1																				
	2																				
	3		□																		
	4		□ □																		
	5		□ □ □																		
16 STR	1		□		□		□ □		□ □ □		□ □ □		□ □ □		□ □ □		□ □ □		□ □ □		□ □ □
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16 SOL	1		□		□		□ □		□ □ □		□ □ □		□ □ □		□ □ □		□ □ □		□ □ □		□ □ □
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14 STR	1		●		●		● ● ●		● ● ● ●		● ● ● ●		● ● ● ●		● ● ● ●		● ● ● ●		● ● ● ●		● ● ● ●
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	4		● ● □ □		● ● □ □		● ● □ □		● ● □ □		● ● □ □		● ● □ □		● ● □ □		● ● □ □		● ● □ □		● ● □ □
12 STR	1		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●
	2		● ● ● □		● ● ● □		● ● ● □		● ● ● □		● ● ● □		● ● ● □		● ● ● □		● ● ● □		● ● ● □		● ● ● □
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10 STR	1		● ●		● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●
	2		● ●		● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●
10 SOL	1		● ●		● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●
	2		● ●		● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2	1 2						
		18 STR	18 SOL	16 STR	16 SOL	14 STR	14 SOL	12 STR	12 SOL	10 STR	10 SOL										

How to read this chart:

**Example 1:**  
1 No. 12 str.  
+ 4 No. 14 sol. (5)

**Example 2:**  
1 No. 10 sol.  
+ 2 No. 10 str. (3)

## Installation Instructions

### **WARNING**

Turn power off before installing or removing terminal. All electrical work should be done according to appropriate electrical codes.

1. Strip wire insulation 5/8 inch (15,9 mm) from the end of the wires to be connected.
2. Firmly grasp wires, making sure insulation ends are even and tightly bundled. (wires may be twisted or untwisted). Slip connector over wire tips.
3. Turn connector onto wires in a clockwise direction until secure.
4. To remove, turn connector counter-clockwise.

## Metric Wire Combinations


### Copper Conductors Only


Cross Section Capacity	
Minimum	Maximum
5,0mm <sup>2</sup>	16,0mm <sup>2</sup>

Conductor Combinations		
Quantity	Size	Type
5-6	1,0mm <sup>2</sup>	sol/str
4-6	1,5mm <sup>2</sup>	sol/str
2-5	2,5mm <sup>2</sup>	sol/str
2-4	4,0mm <sup>2</sup>	sol/str
2	6,0mm <sup>2</sup>	sol/str

Only AWG combinations are UL Listed or CSA Certified.

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