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Solutions for Electronic Specialty Markets (ESM)

Product Catalog for Electronic Specialty Markets

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- 3M™ Cable & Assemblies
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- 3M™ Warehousing & Packaging Supplies
- **3M™ Wire Connectors**

Other Tools

- What's New
- Sales Contacts
- U.S. Distributors

[Printer-friendly format](#) **3M™ Scotchlok™ Electrical Spring Connectors R-BOX**



[\[click to enlarge\]](#)

9#18, 4-6#16, 2-5#14, 2-5#12, 1-3#10 AWG, 100 per box, Red

GTIN(UPC/EAN) : 0 00 54007 20058 1
3M Id : 80-6011-0025-0

Additional Information

3M™ Scotchlok™ Electrical Spring Connectors Y, R, G and B are the original color-coded wire connectors with a unique soft shell that is easy on the fingers. They are flexible, yet durable, and provide a compact, fully-insulated connection that won't cut or abrade wires. Their torque fins are engineered to provide a comfortable and secure grip, which makes installation fast and back-off

[Full Text . . .](#)

Learn More . . .

[Packaging Data](#)

[3M™ Scotchlok™ Insulated Electrical Spring Connector Red - Data Sheet \(PDF 185.3 K\)](#)

[Ordering Information for Scotchlok™ R Spring Connectors - Product Selection Guide \(HTML 1.6 K\)](#)

Please Note:

Adobe® Acrobat® Reader is required to view PDF documents.



Characteristics

Agency Approvals	UL and CSA
China RoHS - Below MCV	Yes
Color	Red
EU RoHS Compliant	Yes
Maximum Recommended Voltage Rating	600 Volt
Units per Box	100



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 mm² thru 6,0 mm²)

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

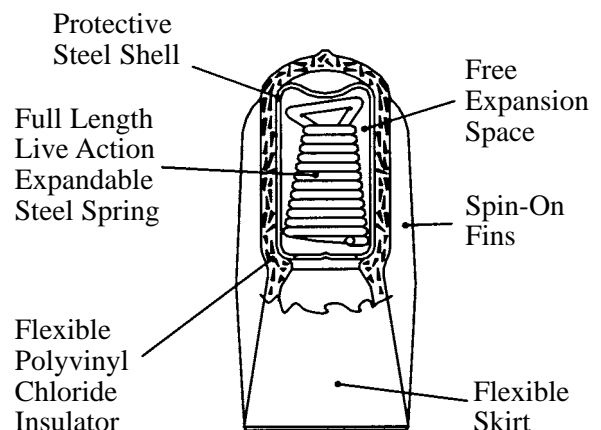
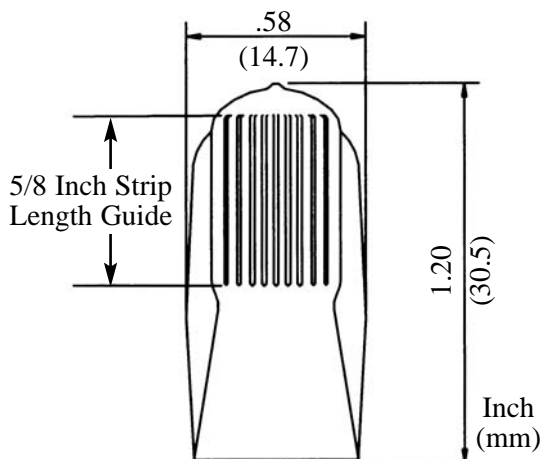
CSA Certified-CSA Standard C22.2 No. 0, 188-M1983

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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12 STR	1		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●	
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10 STR	1		● ●		● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●	
	2		● ●		● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●	
10 SOL	1		● ●		● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		● ● ●	
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		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 ²	16,0mm ²

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

Only AWG combinations are UL Listed or CSA Certified.