# **3M** United States

#### 3M Worldwide : United States : Electronics Manufacturing

- Solutions for Electronic Specialty Markets (ESM)
  - Product Catalog for Electronic Specialty Markets
    - 3M<sup>™</sup> Electronic
      Specialty Markets New
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    - 3M<sup>™</sup> Terminals, Kits & Tools
    - 3M<sup>™</sup> Vacuums & Accessories
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    - 3M<sup>™</sup> Wire Connectors

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<u>Product Catalog for Electronic Specialty Markets</u> > <u>3M™ Terminals, Kits & Tools</u> > <u>Ring Tongues</u> > <u>Highland™</u> <u>Ring Tongue Terminals - Vinyl Insulated Butted Seam</u> >

### Printer-friendly format 3M<sup>™</sup> Highland<sup>™</sup> Vinyl Insulated Ring RV10-516Q, 12-10 AWG

This terminal has a wire range of 12-10 and a stud size of 5/16. It has case quantities of 10 bags per case.

GTIN(UPC/EAN) : 0 00 54007 49562 8 3M Id : 80-6105-9298-4

### Additional Information

A ring is the standard style of tongue. The safest and most reliable; it cannot be removed unless mounting screw is removed.

### Learn More . . .

Packaging Data

Highland Terminals RV10-6 thru RV18-516 - Data Sheet (PDF 22.4 K)

Highland<sup>™</sup> Rings - Vinyl Insulated - Product Selection Guide (PDF 8.5 K)

Terminal Stud Size Chart - Product Selection Guide (PDF 5.2 K)

Please Note: Adobe  $\ensuremath{\mathbb{R}}$  Acrobat  $\ensuremath{\mathbb{R}}$  Reader is required to view PDF documents.



| Characteristics        |            |
|------------------------|------------|
| Agency Approvals       | UL and CSA |
| Barrel Style           | Butted     |
| China RoHS - Below MCV | No         |
| CSA File Number        | LR22190    |
| EU RoHS Compliant      | No         |
| Insulation Material    | Vinyl      |
| Stud Size              | 5/16 Inch  |
| Terminal Style         | Standard   |
| Terminal Type          | Ring       |
|                        |            |

| UL File Number   | E23438                             |
|------------------|------------------------------------|
| Wire Gauge Range | 10 to 12 American Wire Gauge (AWG) |

# **3M** Highland<sup>™</sup> Terminals

# RV10-6 thru RV18-516 Ring Tongue, Vinyl Insulated, Butted Seam

# Data Sheet

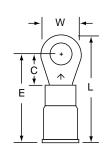
| Product<br>Number | Wire<br>Range<br>(AWG) | Stud<br>Size | w    | с    | L    | E    | Thickness | Barrel<br>Length | Barrel<br>I.D. | Maximum<br>Insulation<br>Diameter |
|-------------------|------------------------|--------------|------|------|------|------|-----------|------------------|----------------|-----------------------------------|
| RV10-6            | 12-10                  | 6            | 0.38 | 0.29 | 1.03 | 0.84 | 0.040     | 0.25             | 0.135          | 0.250                             |
| RV10-8            | 12-10                  | 8            | 0.38 | 0.29 | 1.03 | 0.84 | 0.040     | 0.25             | 0.135          | 0.250                             |
| RV10-10           | 12-10                  | 10           | 0.38 | 0.29 | 1.03 | 0.84 | 0.040     | 0.25             | 0.135          | 0.250                             |
| RV10-14           | 12-10                  | 1⁄4          | 0.53 | 0.44 | 1.26 | 0.99 | 0.040     | 0.25             | 0.135          | 0.250                             |
| RV10-38           | 12-10                  | 3⁄8          | 0.53 | 0.44 | 1.26 | 0.99 | 0.040     | 0.25             | 0.135          | 0.250                             |
| RV10-516          | 12-10                  | 5⁄16         | 0.54 | 0.44 | 1.26 | 0.99 | 0.040     | 0.25             | 0.135          | 0.250                             |
| RV14-4            | 16-14                  | 4            | 0.25 | 0.22 | 0.80 | 0.67 | 0.030     | 0.25             | 0.090          | 0.170                             |
| RV14-6            | 16-14                  | 6            | 0.25 | 0.22 | 0.80 | 0.67 | 0.030     | 0.25             | 0.090          | 0.170                             |
| RV14-8            | 16-14                  | 8            | 0.25 | 0.22 | 0.80 | 0.67 | 0.030     | 0.25             | 0.090          | 0.170                             |
| RV14-10           | 16-14                  | 10           | 0.33 | 0.29 | 0.90 | 0.74 | 0.030     | 0.25             | 0.090          | 0.170                             |
| RV14-14           | 16-14                  | 1⁄4          | 0.47 | 0.40 | 1.08 | 0.85 | 0.030     | 0.25             | 0.090          | 0.170                             |
| RV14-516          | 16-14                  | 5⁄16         | 0.47 | 0.40 | 1.08 | 0.85 | 0.030     | 0.25             | 0.090          | 0.170                             |
| RV18-4            | 22-18                  | 4            | 0.25 | 0.22 | 0.80 | 0.67 | 0.030     | 0.25             | 0.070          | 0.145                             |
| RV18-6            | 22-18                  | 6            | 0.25 | 0.22 | 0.80 | 0.67 | 0.030     | 0.25             | 0.070          | 0.145                             |
| RV18-8            | 22-18                  | 8            | 0.31 | 0.33 | 0.93 | 0.78 | 0.030     | 0.25             | 0.070          | 0.145                             |
| RV18-10           | 22-18                  | 10           | 0.31 | 0.33 | 0.93 | 0.78 | 0.030     | 0.25             | 0.070          | 0.145                             |
| RV18-14           | 22-18                  | 1⁄4          | 0.47 | 0.40 | 1.08 | 0.85 | 0.030     | 0.25             | 0.070          | 0.145                             |
| RV18-516          | 22-18                  | 5⁄16         | 0.47 | 0.40 | 1.08 | 0.85 | 0.030     | 0.25             | 0.070          | 0.145                             |



UNDERWRITERS LABORATORIES STANDARD NO. UL 486A 3M FILE NO. E23438



CANADIAN STANDARDS ASSOCIATION STANDARD NO. C22.2 NO. 0. 65 3M FILE NO. LR22190



### **Specifications**

Wire Size: Barrel Seam: Max. Voltage Rating:

Max. Temperature Rating: Max. Current: Insulator Material: Terminal Material: Terminal Plating: See Table Above Butted 600 V Building Wire 1000 V Signs, Fixtures and Luminaires 221°F (105°C) Same as Wire Vinyl ETP Copper Tin

### **Installation Information**

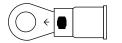
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Turn power off before installing or removing terminal. All electrical work should be done according to appropriate electrical codes.

UL Listed and CSA Certified for use on stranded copper (AWG) wire only.

Strip away the end 3/8 inch of wire insulation.

Make the crimp in the proper station of a recommended 3M crimp tool: TH-440, TH-450 (scissor style), or TR-490 (ratchet style) hand tools.



Barrel Crimp (Electrical)

## **Engineering Specification**

Crimp-type terminals shall, electrically and mechnically, connect to a pre-stripped end of a stranded copper wire: and have a flat tongue portion with a central opening for mounting around a screw or stud.

The terminal line shall offer tongue variations in hole (stud) size (6, 8 10, etc.) and configuration (ring, fork, block fork, flanged block fork, locking fork, etc.): and barrel variations in wire (AWG) size (22-18, 16-14, 12-10, etc.) and construction (non-insulated brazed seam, vinyl insulated butted seam, nylon insulated with insulation grip, etc.). The terminal line shall have regulatory agency coverage (UL Listing, CSA Certification). The terminal tongue shall be marked with the wire range and manufacturer's symbol ( $\uparrow$ ).

The vinyl-insulated, butted seam ring tongue terminal shall be tin-plated, annealed copper, with the tongue having a specified stud hole (size 6 thru 3/8 in.) and a butted seam barrel covered by a molded vinyl funnel entry sleeve, color coded and sized for a specified (AWG) wire range (22-18, 16-14, 12-10).

Insulated terminals shall be UL Listed and CSA Certified for 600 Volts maximum building wire: 1000 Volts maximum in signs, fixtures and luminaries and have a maximum operating temperature of 221°F (105°C).

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#### IMPORTANT NOTICE

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.

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### **3M**

**Electrical Products Division** 

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