## **3M**

# Scotchlok<sup>TM</sup> Terminals

MNG18-4R/S thru MNG10-38R/S Ring Tongue, Nylon Insulated with Insulation Grip

# W + C + L

## **Data Sheet**

| Product 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 |
|----------------|------------------------|--------------|------|------|------|------|-----------|------------------|----------------|-----------------------------------|
| MNG18-4R/S     | 22-18                  | 4            | 0.25 | 0.22 | 0.79 | 0.66 | 0.030     | 0.25             | 0.070          | 0.145                             |
| MNG18-6R/S     | 22-18                  | 6            | 0.25 | 0.22 | 0.79 | 0.66 | 0.030     | 0.25             | 0.070          | 0.145                             |
| MNG18-8R/L     | 22-18                  | 8            | 0.31 | 0.33 | 0.92 | 0.77 | 0.030     | 0.25             | 0.070          | 0.145                             |
| MNG18-10R/L    | 22-18                  | 10           | 0.31 | 0.33 | 0.92 | 0.77 | 0.030     | 0.25             | 0.070          | 0.145                             |
| MNG18-14R/S    | 22-18                  | 1/4          | 0.47 | 0.40 | 1.07 | 0.84 | 0.030     | 0.25             | 0.070          | 0.145                             |
| MNG18-516R/S   | 22-18                  | 5/16         | 0.47 | 0.40 | 1.07 | 0.84 | 0.030     | 0.25             | 0.070          | 0.145                             |
| MNG18-38R      | 22-18                  | 3/8          | 0.56 | 0.40 | 1.12 | 0.84 | 0.030     | 0.25             | 0.070          | 0.145                             |
| MNG14-4R/S     | 16-14                  | 4            | 0.25 | 0.22 | 0.81 | 0.68 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-6R/S     | 16-14                  | 6            | 0.25 | 0.22 | 0.81 | 0.68 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-8R/S     | 16-14                  | 8            | 0.25 | 0.22 | 0.81 | 0.68 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-8R       | 16-14                  | 8            | 0.33 | 0.29 | 0.91 | 0.75 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-8R/L     | 16-14                  | 8            | 0.31 | 0.33 | 0.94 | 0.79 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-10R      | 16-14                  | 10           | 0.33 | 0.29 | 0.91 | 0.75 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-10R/L    | 16-14                  | 10           | 0.31 | 0.33 | 0.94 | 0.79 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-14R/S    | 16-14                  | 1/4          | 0.47 | 0.40 | 1.09 | 0.86 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-516R/S   | 16-14                  | 5/16         | 0.47 | 0.40 | 1.09 | 0.86 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-38R      | 16-14                  | 3/8          | 0.56 | 0.40 | 1.14 | 0.86 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG10-4R/S     | 12-10                  | 4            | 0.28 | 0.29 | 0.98 | 0.84 | 0.040     | 0.25             | 0.135          | 0.250                             |
| MNG10-6R       | 12-10                  | 6            | 0.38 | 0.29 | 1.03 | 0.84 | 0.040     | 0.25             | 0.135          | 0.250                             |
| MNG10-8R       | 12-10                  | 8            | 0.38 | 0.29 | 1.03 | 0.84 | 0.040     | 0.25             | 0.135          | 0.250                             |
| MNG10-10R      | 12-10                  | 10           | 0.38 | 0.29 | 1.03 | 0.84 | 0.040     | 0.25             | 0.135          | 0.250                             |
| MNG10-14R/S    | 12-10                  | 1/4          | 0.53 | 0.44 | 1.26 | 0.99 | 0.040     | 0.25             | 0.135          | 0.250                             |
| MNG10-516R/S   | 12-10                  | 5/16         | 0.53 | 0.44 | 1.26 | 0.99 | 0.040     | 0.25             | 0.135          | 0.250                             |
| MNG10-38R/S    | 12-10                  | 3/8          | 0.54 | 0.44 | 1.26 | 0.99 | 0.040     | 0.25             | 0.135          | 0.250                             |



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: See Table Above
Barrel Seam: Butted with Insulation Grip
Max. Voltage Rating: 600 V Building Wire

1000 V Signs, Fixtures and Luminaires

Max. Temperature Rating: 221°F (105°C)
Max. Current: Same as Wire

Insulator Material: Nylon
Terminal Material: ETP Copper

Terminal Plating: Tin

#### **Installation Information**

#### **AWARNING**

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-482, TR-490 (ratchet style) hand tools.





Barrel Crimp (Electrical)



Insulation Support Crimp (Mechanical)

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#### IMPORTANT NOTICE

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Warranty; Limited Remedy; Limited Liability. This product will be free from defects in material and manufacture as of the date of purchase.

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#### **3M**

#### **Electrical Products Division**

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#### **Engineering Specification**

Crimp-type terminals shall, electrically and mechanically, 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 nylon-insulated, ring tongue terminal with insulation grip shall be tin-plated, annealed copper, with the tongue having a specified stud hole (size 4 thru 3/8 in.) and a butted seam barrel with a tin plated brass, funnel entry insulation grip, covered by a molded nylon 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).

### **Mouser Electronics**

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MNG18-10R/LK (BULK)