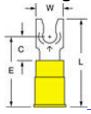


## 3M Worldwide : United States : Electronics Manufacturing

- Solutions for Electronic Specialty Markets (ESM)
  - Product Catalog for Electronic Specialty Markets
    - 3M™ Electronic
       Specialty Markets New
       Product Releases
    - 3M™ Abrasives
    - 3M™ Adhesives,
       Cleaners & Compounds
    - 3M™ Breadboards & Test Clips
    - 3M™ Cable & Assemblies
    - 3M™ Copper Interconnects
    - 3M™ Fiber Optics
    - 3M™ Fire Protection
    - 3M™ Heat Shrink
    - 3M<sup>™</sup> Identification Systems
    - 3M™ Occupational Health & Safety Products
    - 3M<sup>™</sup> Protective Bumpers
    - 3M™ Reclosable Fasteners
    - 3M™ Splicing, Terminating & Ducting
    - 3M™ Static Control
    - 3M™ Tapes
    - 3M™ Terminals, Kits & Tools
    - 3M™ Vacuums & Accessories
    - 3M™ Warehousing & Packaging Supplies
    - 3M™ Wire Connectors

Product Catalog for Electronic Specialty Markets ➤ 3M<sup>TM</sup> Terminals, Kits & Tools ➤ Forks ➤ Scotchlok<sup>TM</sup> Locking Fork Terminals - Nylon Insulated w/Insulation Grip ➤

# □ Printer-friendly format 3M<sup>TM</sup> Scotchlok<sup>TM</sup> Nylon Insulated w/Insulation Grip Locking Fork Terminal MNG10-8FLK, Stud Size 8



This terminal has a wire range of 12-10 AWG and a stud size of 8. It has case quantities of 500 per case.

[click to enlarge]

GTIN(UPC/EAN): 0 00 54007 02107 0

3M Id: 80-6100-5108-0

# **Additional Information**

The spring-like tongue locks into place around the stud even when the mount screw is not tightened. Extra force is required to remove it from the stud.

#### Learn More . . .

Packaging Data

Locking Forks - Nylon Insulated with Insulation Grip 12-10 AWG - Product Selection Guide (PDF 23.8 K)

Scotchlok Terminals MNG18-4FL THRU MNG10-14FL - Data Sheet (PDF 20.0 K)

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

## Please Note:

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



# Other Tools

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

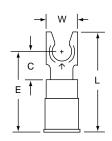
### Characteristics

| Agency Approvals       | UL and CSA      |
|------------------------|-----------------|
| Barrel Style           | Insulation Grip |
| China RoHS - Below MCV | Yes             |
| CSA File Number        | LR22190         |
| EU RoHS Compliant      | Yes             |

| Insulation Material   | Nylon                              |
|-----------------------|------------------------------------|
| Stud Size             | 8 American Wire Gauge (AWG)        |
| Terminal Style        | Locking                            |
| Terminal Type         | Fork                               |
| <b>UL File Number</b> | E23438                             |
| Wire Gauge Range      | 10 to 12 American Wire Gauge (AWG) |

# Scotchlok<sup>TM</sup> Terminals

# MNG18-4FL thru MNG10-10FL Locking Fork, Nylon Insulated with Insulation Grip



# **Data Sheet**

| Product<br>Number | Wire<br>Range<br>(AWG) | Stud<br>Size | Max<br>Lock<br>Width | w    | С    | L    | E    | Thickness | Barrel<br>Length | Barrel<br>I.D. | Maximum<br>Insulation<br>Diameter |
|-------------------|------------------------|--------------|----------------------|------|------|------|------|-----------|------------------|----------------|-----------------------------------|
| MNG18-4FL         | 22-18                  | 4            | 0.27                 | 0.25 | 0.25 | 0.87 | 0.69 | 0.030     | 0.25             | 0.070          | 0.145                             |
| MNG18-6FL         | 22-18                  | 6            | 0.27                 | 0.25 | 0.25 | 0.87 | 0.69 | 0.030     | 025              | 0.070          | 0.145                             |
| MNG18-8FL         | 22-18                  | 8            | 0.34                 | 0.30 | 0.25 | 0.87 | 0.69 | 0.030     | 0.25             | 0.070          | 0.145                             |
| MNG18-10FL        | 22-18                  | 10           | 0.35                 | 0.32 | 0.25 | 0.87 | 0.69 | 0.030     | 0.25             | 0.070          | 0.145                             |
| MNG14-4FL         | 16-14                  | 4            | 0.27                 | 0.25 | 0.25 | 0.89 | 0.71 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-6FL         | 16-14                  | 6            | 0.27                 | 0.24 | 0.25 | 0.89 | 0.71 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-8FL         | 16-14                  | 8            | 0.34                 | 0.30 | 0.25 | 0.89 | 0.71 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-10FL        | 16-14                  | 10           | 0.35                 | 0.32 | 0.25 | 0.89 | 0.71 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG14-14FL        | 16-14                  | 1/4          | 0.48                 | 0.43 | 0.40 | 1.11 | 0.86 | 0.030     | 0.25             | 0.090          | 0.170                             |
| MNG10-6FL         | 12-10                  | 6            | 0.30                 | 0.28 | 0.28 | 1.03 | 0.83 | 0.040     | 0.25             | 0.135          | 0.250                             |
| MNG10-8FL         | 12-10                  | 8            | 0.35                 | 0.32 | 0.28 | 1.03 | 0.83 | 0.040     | 0.25             | 0.135          | 0.250                             |
| MNG10-10FL        | 12-10                  | 10           | 0.36                 | 0.32 | 0.28 | 1.03 | 0.83 | 0.040     | 0.25             | 0.135          | 0.250                             |
| MNG10-14FL        | 12-10                  | 1/4          | 0.48                 | 0.43 | 0.44 | 1.24 | 0.99 | 0.040     | 0.25             | 0.135          | 0.250                             |



**LISTED** 314R **UNDERWRITERS** LABORATORIES UL 486A STANDARD NO. 3M FILE NO. E23438



Tin

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

# **Specifications**

Wire Size: Barrel Seam: Max. Voltage Rating:

Max. Operating Temp.: Max. Current: **Insulator Material:** Terminal Material: Insulation Grip Material:

Plating:

See Table Above **Butted with Insulation Grip** 600 V Building Wire 1000 V Signs, Fixtures and Luminaires 221°F (105°C) Same as Wire Nvlon

ETP Copper **Brass** 

# **Installation Information**

# $oldsymbol{ riangle}$ warning

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 Crimp (Mechanical)

# **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 (\(\bar{\Upsilon}\)).

The nylon-insulated, locking fork terminal with insulation grip shall be tin-plated, annealed copper, with the tongue having a specified stud slot (size 4 thru 10) 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 luminaires and have a maximum operating temperature of 221°F (105°C).

3M and Scotchlok are trademarks of 3M

## **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.

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

3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR

FITNESS FOR A PARTICULAR PURPOSE. If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. Except where prohibited by law, 3M will not be liable for any loss or damage arising from this 3M product, whether direct, indirect, special, incidental or consequential regardless of the legal theory asserted.



**Electrical Products Division**