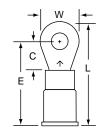
3M

Specialty Terminals

11-2S-P thru 13-500-P Ring Tongue, Vinyl Insulated, Butted Seam



Data Sheet

| Product Number | Wire Range (AWG) | Stud Size | w | С | L | E | Thickness | Barrel Length | Barrel I.D. | Maximum Insulation Diameter |
|-------------------|------------------------|--------------|------|------|------|------|-----------|------------------|----------------|-----------------------------------|
| 11-2S-P | 22-18 | 2 | 0.25 | 0.23 | 0.80 | 0.68 | 0.030 | 0.25 | 0.070 | 0.145 |
| 11-4S-P | 22-18 | 4 | 0.25 | 0.22 | 0.80 | 0.67 | 0.030 | 0.25 | 0.070 | 0.145 |
| 11-6S-P | 22-18 | 6 | 0.25 | 0.22 | 0.80 | 0.67 | 0.030 | 0.25 | 0.070 | 0.145 |
| L-11-6-P | 22-18 | 6 | 0.31 | 0.33 | 0.93 | 0.78 | 0.030 | 0.25 | 0.070 | 0.145 |
| 11-8S-P | 22-18 | 8 | 0.25 | 0.22 | 0.80 | 0.67 | 0.030 | 0.25 | 0.070 | 0.145 |
| 11-8-P | 22-18 | 8 | 0.33 | 0.29 | 0.90 | 0.74 | 0.030 | 0.25 | 0.070 | 0.145 |
| L-11-8-P | 22-18 | 8 | 0.31 | 0.33 | 0.93 | 0.78 | 0.030 | 0.25 | 0.070 | 0.145 |
| 11-10-P | 22-18 | 10 | 0.33 | 0.29 | 0.90 | 0.74 | 0.030 | 0.25 | 0.070 | 0.145 |
| L-11-10-P | 22-18 | 10 | 0.31 | 0.33 | 0.93 | 0.78 | 0.030 | 0.25 | 0.070 | 0.145 |
| 11-14S-P | 22-18 | 1/4 | 0.47 | 0.40 | 1.08 | 0.85 | 0.030 | 0.25 | 0.070 | 0.145 |
| 11-56S-P | 22-18 | 5/16 | 0.47 | 0.40 | 1.08 | 0.85 | 0.030 | 0.25 | 0.070 | 0.145 |
| 11-38-P | 22-18 | 3/8 | 0.56 | 0.40 | 1.13 | 0.85 | 0.030 | 0.25 | 0.070 | 0.145 |
| 12-2S-P | 16-14 | 2 | 0.25 | 0.22 | 0.80 | 0.67 | 0.030 | 0.25 | 0.090 | 0.170 |
| 12-4S-P | 16-14 | 4 | 0.25 | 0.22 | 0.80 | 0.67 | 0.030 | 0.25 | 0.090 | 0.170 |
| 12-6S-P | 16-14 | 6 | 0.25 | 0.22 | 0.80 | 0.67 | 0.030 | 0.25 | 0.090 | 0.170 |
| 12-6-P | 16-14 | 6 | 0.33 | 0.29 | 0.90 | 0.74 | 0.030 | 0.25 | 0.090 | 0.170 |
| L-12-6-P | 16-14 | 6 | 0.31 | 0.33 | 0.93 | 0.78 | 0.030 | 0.25 | 0.090 | 0.170 |
| 12-8S-P | 16-14 | 8 | 0.25 | 0.22 | 0.80 | 0.67 | 0.030 | 0.25 | 0.090 | 0.170 |
| 12-8-P | 16-14 | 8 | 0.33 | 0.29 | 0.90 | 0.74 | 0.030 | 0.25 | 0.090 | 0.170 |
| L-12-8-P | 16-14 | 8 | 0.31 | 0.33 | 0.93 | 0.78 | 0.030 | 0.25 | 0.090 | 0.170 |

| Product Number | Wire Range (AWG) | Stud Size | w | С | L | E | Thickness | Barrel Length | Barrel I.D. | Maximum Insulation Diameter |
|-------------------|------------------------|--------------|------|------|------|------|-----------|------------------|----------------|-----------------------------------|
| 12-10-P | 16-14 | 10 | 0.33 | 0.29 | 0.90 | 0.74 | 0.030 | 0.25 | 0.090 | 0.170 |
| L-12-10-P | 16-14 | 10 | 0.31 | 0.33 | 0.93 | 0.78 | 0.030 | 0.25 | 0.090 | 0.170 |
| 12-14S-P | 16-14 | 1/4 | 0.47 | 0.40 | 1.08 | 0.85 | 0.030 | 0.25 | 0.090 | 0.170 |
| 12-14-P | 16-14 | 1/4 | 0.56 | 0.40 | 1.13 | 0.85 | 0.030 | 0.25 | 0.090 | 0.170 |
| 12-56S-P | 16-14 | 5⁄16 | 0.47 | 0.40 | 1.08 | 0.85 | 0.030 | 0.25 | 0.090 | 0.170 |
| 12-56-P | 16-14 | 5⁄16 | 0.56 | 0.40 | 1.13 | 0.85 | 0.030 | 0.25 | 0.090 | 0.170 |
| 12-38-P | 16-14 | 3/8 | 0.56 | 0.40 | 1.13 | 0.85 | 0.030 | 0.25 | 0.090 | 0.170 |
| 13-4S-P | 12-10 | 4 | 0.28 | 0.29 | 0.98 | 0.84 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-6S-P | 12-10 | 6 | 0.28 | 0.29 | 0.98 | 0.84 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-6-P | 12-10 | 6 | 0.38 | 0.29 | 1.03 | 0.84 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-8S-P | 12-10 | 8 | 0.28 | 0.29 | 0.98 | 0.84 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-8-P | 12-10 | 8 | 0.38 | 0.29 | 1.03 | 0.84 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-10-P | 12-10 | 10 | 0.38 | 0.29 | 1.03 | 0.84 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-14S-P | 12-10 | 1/4 | 0.53 | 0.44 | 1.26 | 0.99 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-14-P | 12-10 | 1/4 | 0.59 | 0.44 | 1.29 | 0.99 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-56S-P | 12-10 | 5⁄16 | 0.53 | 0.44 | 1.26 | 0.99 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-56-P | 12-10 | 5⁄16 | 0.59 | 0.44 | 1.29 | 0.99 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-38S-P | 12-10 | 3/8 | 0.54 | 0.44 | 1.26 | 0.99 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-38-P | 12-10 | 3/8 | 0.59 | 0.44 | 1.29 | 0.99 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-716-P | 12-10 | 7/16 | 0.75 | 0.57 | 1.49 | 1.12 | 0.040 | 0.25 | 0.135 | 0.250 |
| 13-500-P | 12-10 | 1/2 | 0.75 | 0.57 | 1.50 | 1.12 | 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

Max. Voltage Rating:

600 V Building Wire 1000 V Signs, Fixtures

and Luminaires 221°F (105°C)

Max. Temperature Rating: Max. Current: Same as Wire Insulator Material:

Vinyl

ETP Copper Terminal Material: Terminal Plating: Tin

Installation Information

MARNING

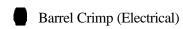
Turn power off before installing or removing terminal. All electrical work should be done according to appropriate electrical codes.

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.





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 2 thru 1/2 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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