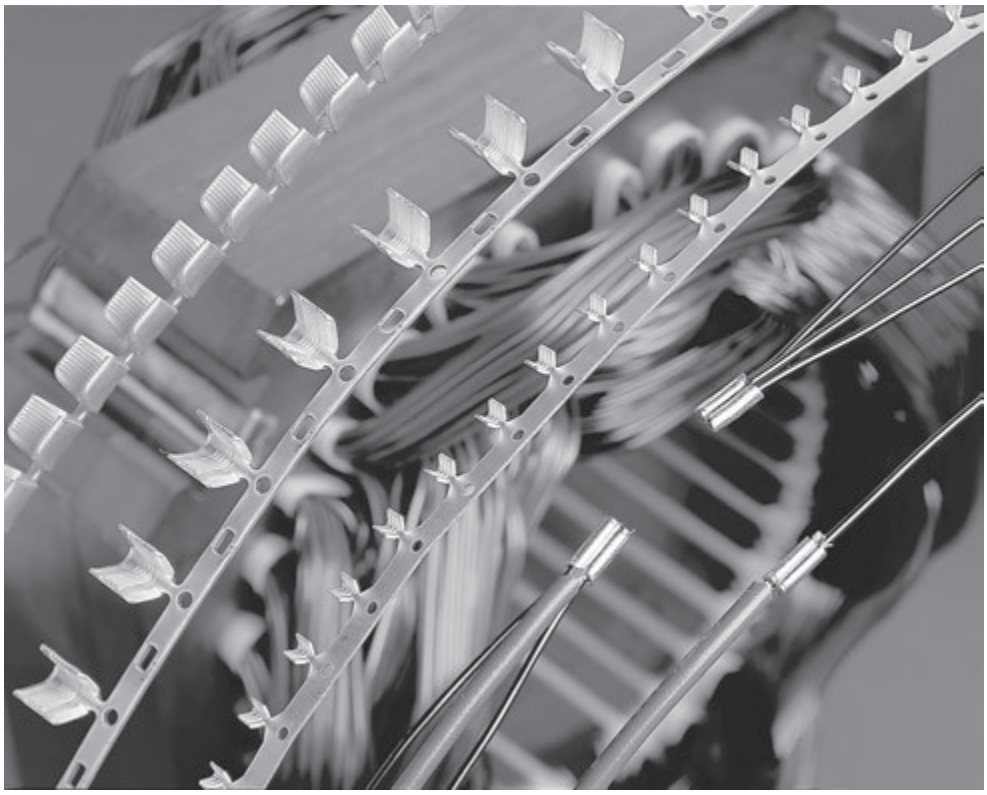
AMPLIVAR Splices

Product Facts

- **Compression crimp eliminates cold solder points, weld burns and wire embrittlement usually connected with thermal-type terminations**
- **Excellent tensile strength—vibration resistant**
- **Provides a superior electrical connection that is free of many contaminants such as stripper residue and solder flux**
- **Precision formed, strip-fed splices terminated in automatic machines for high production rates per hour**
- **High termination rates, low wire consumption and the elimination of rejects caused by solder flux or heat damage results in the lowest applied costs**
- **Precisely controlled crimp termination helps eliminate human error for maximum reliability**
- **Splice up to 3 magnet wires together with stranded lead in one barrel**

Applications

- **Motor windings and connections**
- **Coil connections**
- **Transformer windings and connections**
- **Solid wire connections**
- **Lighting ballasts**
- **Power supplies**
- **Starters and alternators**



TE Connectivity offers a full selection of AMPLIVAR splices that are specifically designed to terminate magnet wire to itself or in combination with standard solid or stranded lead wire.

AMPLIVAR splices have machined, sharp edged serrations inside the crimp barrels. These serrations, made by a special production process, pierce the insulating layer of magnet wires in a manner that provides a large contact area.

In a one-step operation the magnet wire is automatically multiple ring-stripped of its insulation as it is forced into the serrations during the precisely controlled crimp.

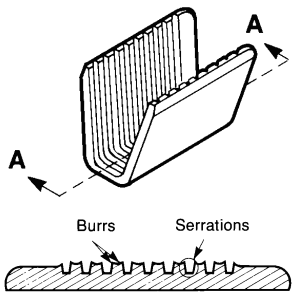
The resulting termination produces a high tensile strength, air-sealed connection that is as resistant to corrosion as the insulated conductor.

As many as three magnet wires can be terminated simultaneously in one splice. In addition, copper or aluminum magnet wire, or a combination of both, can be terminated.

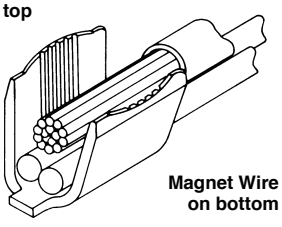
When required, copper or aluminum magnet wire can be combined with standard, pre-stripped solid or stranded lead wires.

Depending on your specific application, AMPLIVAR splices are available in 5, 7 and 9 serration versions for terminations in the 100 to 22,000 CMA range as well as miniature and subminiature designs for terminations in the 100 to 1850 CMA range.

The crimping of AMPLIVAR splices is done by semi-automatic crimping machines for high output per hour production rates.



Section AA



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Dimensions are shown for reference purposes only. Specifications subject to change.

AMPLIVAR Splices (Continued)

Technical Features

Applicable Types of Wire — Cu, Al (Solid) together or in combination with stranded lead wire

Wire Size Range — from 300 to 13,000 CMA (0.1 mm² to 6.6 mm²)

Terminal Base Material — Brass, phosphor bronze

Surface Finish — plain and tin plated except where noted

Temperature Range — –65°C to +150°C

Rated Current — according connected wire size

Rated Voltage — according terminated winding

Test Results

The AMPLIVAR products have been subjected to the following tests without significant millivolt losses.

Temperature Cycling — 25 cycles with each cycle consisting of 30 minutes at +125°C followed by 30 minutes at –65°C

Heat Age — 96 hours at +150°C

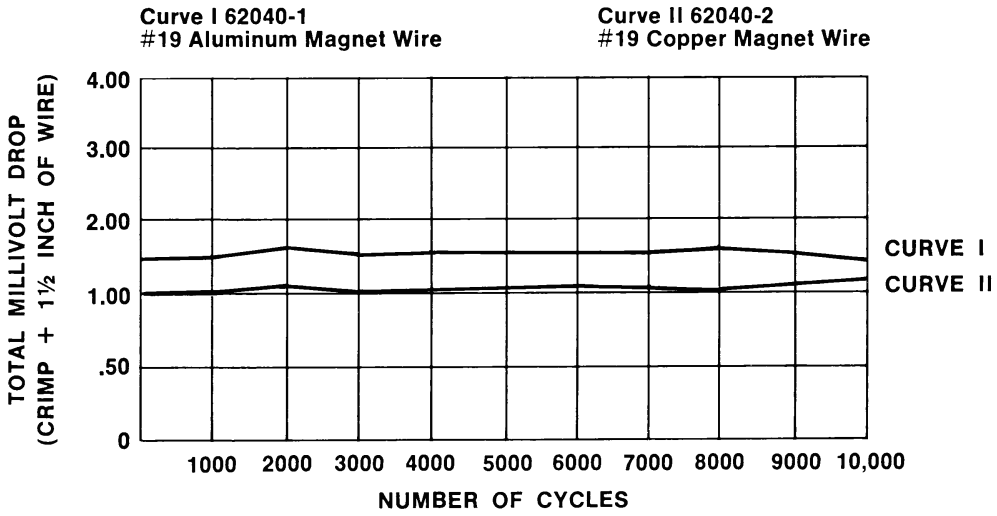
Thermal Shock — 25 cycles with each cycle consisting of 30 minutes at +150°C followed by 30 minutes at –65°C

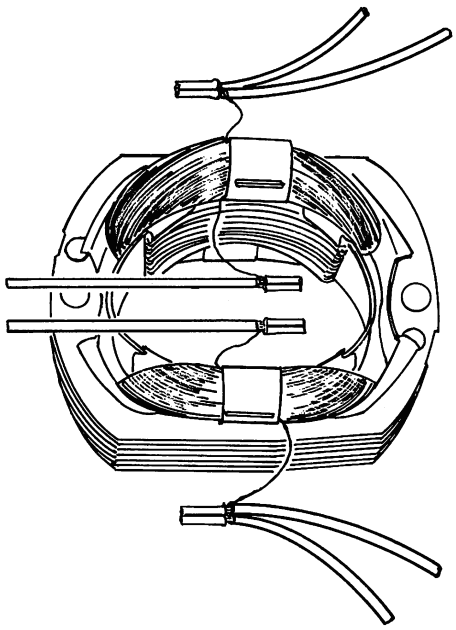
Salt Spray — 96 hours at +35°C with a 5% salt solution spray

Humidity — 96 hours at 90–95% relative humidity and +40°C

Current Cycling — 10,000 cycles with each consisting of 3 minutes on and 3 minutes off at a current (25 A) which establishes a wire temperature

TYPICAL CURRENT CYCLING TEST RESULTS





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AMPLIVAR Splices (Continued)

General Application Guidelines

To assist you in obtaining the optimum AMPLIVAR product termination, the following guidelines are recommended:

1. All magnet wires must be placed in the bottom of the wire barrel before crimping. If lead wire is to be crimped in the same termination, it should be placed on top of the magnet wires.
2. Wire barrels are designed to accept a maximum of three insulated magnet wires plus stranded lead wires.
3. The ratio of magnet wire diameters crimped in any wire barrel should not exceed 2:1. This ratio is approximately a range from the largest to the smallest magnet wire of six sizes.
4. The sum of the circular mil area (CMA) of the magnet wires and any lead wires should not exceed the capacity of the splice.
5. The sum of the diameters of the individual magnet wires plus twice the terminal stock thickness must be equal to or less than the crimp width.
6. Magnet wire of 26 AWG [0.40 mm] or smaller should be used with 7-serration splices having "shallow serrations," and magnet wire of 28 AWG [0.32 mm] or smaller should be used with 9-serration splices having "shallow serrations" (part numbers identified with asterisk [*] are in the tabular data on the following technical pages).
7. Magnet wire of 20 AWG [0.81 mm] or larger having an insulation thickness heavier than "single film coated," should not be used with splices having "shallow serrations" (those part numbers marked with an asterisk [*] in the tabular data on the following technical pages).
8. When aluminum magnet wire is used, splices and terminals must be tin plated.
9. Consult TE for splice and terminal selection and recommendations for all non-standard applications.

Technical Documents

Application specifications describe requirements for using the product in its intended application and or crimping information. They are intended for the packaging and design engineer and the machine setup person.

114-2002	AMPLIVAR 7-serration pigtail splices	114-2006	AMPLIVAR subminiature pigtail splices
114-2003	AMPLIVAR 9-serration pigtail splices	114-2009	AMPLIVAR 5-serration thru splices
114-2005	AMPLIVAR subminiature thru splices	114-2016	AMPLIVAR miniature pigtail splices

Suggested Splice Selection Procedure

Use the following guide to help you to determine the proper splice for your application:

1. Use 9-serration splices, tin plated when terminating aluminum magnet wire or combinations with aluminum magnet wire.
2. Use 9-serration splices for hermetic and severe environment applications.
3. Use splices identified with an asterisk [*] when terminating 7-serration 26 AWG [0.40 mm] or smaller wires and 9-serration 28 AWG [0.32 mm] or smaller wires.
4. Calculate the total CMA of the magnet wires plus any lead wires to be terminated. Always use the coated magnet wire for CMA (see pages 90–91).
5. Calculate the total magnet wire diameters (see pages 90 and 91).
6. Select a splice for trial calculations. It should have the proper CMA range. Plating finish should be considered at this time.
7. Calculate the sum of the magnet wire diameters plus two splice stock thicknesses. If this total is less than the crimp width of the splice selected, it may be used. If the total is greater than the crimp width, a splice with a greater crimp width must be selected. Consult TE for special wide tooling recommendations.

Example:

■ Selection of a pigtail splice to terminate the following wires:

One 28 AWG [0.32 mm] copper magnet wire.
One 22 AWG [0.64 mm] aluminum magnet wire.
One 18 AWG [0.8–0.9 mm²] 19-strand copper lead wire.

■ Calculate the total CMA (Procedure 4):

28 AWG [0.32 mm] coated magnet wire	= 185 CMA
22 AWG [0.64 mm] coated magnet wire	= 708 CMA
18 AWG [0.8–0.9 mm²] stranded lead wire	= 1608 CMA
Total	**= 2501 CMA**

■ Calculate the sum of the magnet wire diameters (Procedure 5):

28 AWG [0.32 mm] coated magnet wire	= .0136 [0.35]
22 AWG [0.64 mm] coated magnet wire	= .0266 [0.68]
Total	**= .0402 [1.03]**

■ Select a terminal for trial calculations. Splice No. 62305-2, page 47 (Procedure 6):

CMA range	= 600–3000
Stock thickness	= .016 [0.41]
Crimp width	= .110 [2.79]

9-serration, tin plated for aluminum magnet wire (Procedure 1).

Splice identified with asterisk [*] for 28 AWG [0.32 mm] (Procedure 3).

■ Calculate the sum of the magnet wire diameters plus two splice stock thicknesses (Procedure 7):

.0402 + (.016 x 2) = .0722
[1.02 + (0.41 x 2) = 1.84

.0722 [1.84] is less than the splice crimp width of .110 [2.79]; therefore, Part No. 62305-2 may be used.

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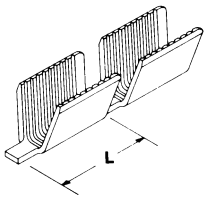
AMPLIVAR Splices (Continued)

9 Serrations — Pigtail Type

Product Facts
(Plus All 7 Serration Facts)

- **Splice length is increased on larger CMA splices for improved performance**
- **Serration depths are varied within the splice to give optimum electrical/ mechanical performance on all wire sizes**
- **Serration sidewall angles are varied to allow better wire stripping and serration fill**
- **Flat bottom of splice helps keep magnet wires on bottom as required during crimping**
- **Magnet wires 28 AWG [0.32 mm] and larger may be terminated without requiring shallow serrations**
- **Additional serrations enhance stability of crimp**



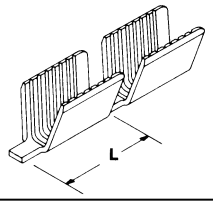
AWG/ mm²	Wire Range Solid Dia.	Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material	Part Number
24-18.5 0.26-0.80	**.020-.039** 0.55-1.00	400-1500	**.016** 0.41	**.080** 2.03	**.225** 5.72	Tin Plated Brass	62303-2*
22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	62304-2
22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.016** 0.41	**.110** 2.79	**.225** 5.72	Tin Plated Brass	62305-2*
18.5-13.5 0.80-2.54	**.039-.071** 1.00-1.80	1500-5000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	62306-2
18.5-13.5 0.80-2.54	**.039-.071** 1.00-1.80	1500-5000	**.016** 0.41	**.110** 2.79	**.225** 5.72	Tin Plated Brass	62307-2*
15.5-12 1.54-3.46	**.055-.083** 1.40-2.10	3000-7000	**.020** 0.51	**.140** 3.56	**.265** 6.73	Tin Plated Brass	62308-2
13.5-10 2.54-4.90	**.071-.098** 1.80-2.50	5000-10,000	**.025** 0.64	**.180** 4.57	**.265** 6.73	Tin Plated Brass	62309-2
12-9 3.46-6.38	**.083-.112** 2.10-2.85	7000-14,000	**.025** 0.64	**.180** 4.57	**.265** 6.73	Tin Plated Brass	62310-2
10-8 4.90-8.60	**.098-.130** 2.50-3.31	10,000-17,000	**.030** 0.76	**.250** 6.35	**.340** 8.64	Tin Plated Brass	62311-2
9-6.5 7.07-9.45	**.118-.137** 3.00-3.47	14,000-22,000	**.030** 0.76	**.250** 6.35	**.340** 8.64	Tin Plated Brass	1742898-1

*These splices are recommended for applications using wire size 28 AWG [0.32 mm] or smaller.
[1] Special high force application equipment required.

7 Serrations — Pigtail Type

Product Facts

- **Taper on both crimper and anvil improves flex life of termination**
- **Longer "flat" on tooling improves electrical performance (.125 vs. .080 [3.18 vs. 2.03])**
- **Radius on wire entry end of splice helps prevent nicking wires and improves mechanical performance**
- **Serrations are offset to sheared end to place additional serrations in "electrical" portion of crimped splice**
- **Splice CMA ranges are overlapped so that two splices are available for any given CMA**



AWG/ mm²	Wire Range Solid Dia.	Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material	Part Number
22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Brass	62000-1
22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Brass	62157-1*
22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	62000-2
22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	62157-2*
22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	62200-2[1]
18.5-13.5 0.80-2.54	**.039-.071** 1.00-1.80	1500-5000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Brass	62040-2
18.5-13.5 0.80-2.54	**.039-.071** 1.00-1.80	1500-5000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	62040-1
18.5-13.5 0.80-2.54	**.039-.071** 1.00-1.80	1500-5000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Phosphor Bronze	964156-1
15.5-12 1.54-3.46	**.055-.083** 1.40-2.10	3000-7000	**.020** 0.51	**.140** 3.56	**.225** 5.72	Brass	62001-1
15.5-12 1.54-3.46	**.055-.083** 1.40-2.10	3000-7000	**.020** 0.51	**.140** 3.56	**.225** 5.72	Tin Plated Brass	62001-2
15.5-12 1.54-3.46	**.055-.083** 1.40-2.10	3000-7000	**.020** 0.51	**.140** 3.56	**.225** 5.72	Tin Plated Brass	62201-2[1]
12-10 2.10-6.0	**.085-.110** 2.10-2.85	7000-12,000	**.025** 0.64	**.250** 6.35	**.225** 5.72	Tin Plated Brass	62295-1
12-10 2.10-6.0	**.085-.110** 2.10-2.85	7000-12,000	**.025** 0.64	**.250** 6.35	**.225** 5.72	Brass	62295-2
12-9 2.10-6.38	**.085-.115** 2.10-3.47	7000-13,000	**.025** 0.64	**.180** 4.57	**.225** 5.72	Tin Plated Brass	62002-2

*These splices are recommended for applications using wire size 26 AWG [0.40 mm] or smaller.
[1] Flat bottom.

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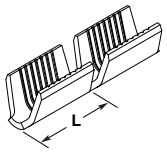
AMPLIVAR Splices (Continued)

7 Serrations — Thru Type

Product Facts

- Crimp bellmouth provides retention in circular cavity slot in bobbin



AWG/ mm²	Wire Range Solid Dia.	Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material	Part Number
22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	1217384-1*

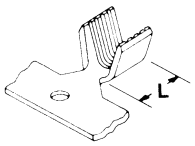
*These splices are recommended for applications using wire size 26 AWG [0.40 mm] or smaller.

5 Serrations — Thru Type

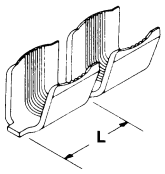
Product Facts

- Wide range of thru splice s
- Serrations centered in splic e to achieve optimu m electrical and mechanica l performance in a thru splic e
- CMA range accepts a wid e variety of wire sizes an d combination s

A



B



Type	AWG/ mm²	Wire Range Solid Dia.	Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material	Part Number
A	17-12.5 1.00-2.80	**.045-.075** 1.15-1.85	2000-5400	**.020** 0.51	**.110** 5.08	**.235** 5.97	Brass	63564-1
	10-8 5.00-8.00	**.100-.125** 2.55-3.20	10,000-16,000	**.032** 0.80	**.180** 4.57	**.267** 6.78	Tin Plated Brass	63561-1
	10-7.5 5.00-11.50	**.100-.150** 2.60-3.80	10,400-22,900	**.030** 0.76	**.300** 7.62	**.310** 7.87	Tin Plated Brass	63562-1
B	22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Brass	42076
	22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Brass	42192-1*
	22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	42192-2*
	22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Brass	42778-1*[1]
	22-15.5 0.38-1.54	**.028-.055** 0.70-1.40	600-3000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	42778-2*[1]
	18.5-13.5 0.80-2.54	**.039-.071** 1.00-1.80	1500-5000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Brass	41765
	18.5-13.5 0.80-2.54	**.039-.071** 1.00-1.80	1500-5000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	41899
	18.5-13.5 0.80-2.54	**.039-.071** 1.00-1.80	1500-5000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Brass	42119-1*
	18.5-13.5 0.80-2.54	**.039-.071** 1.00-1.80	1500-5000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Brass	42776-1*[1]
	18.5-13.5 0.80-2.54	**.039-.071** 1.00-1.80	1500-5000	**.020** 0.51	**.110** 2.79	**.225** 5.72	Tin Plated Brass	42776-2*[1]
	15.5-12 1.54-3.46	**.055-.083** 1.40-2.10	3000-7000	**.020** 0.51	**.140** 3.56	**.225** 5.72	Brass	41766
	15.5-12 1.54-3.46	**.055-.083** 1.40-2.10	3000-7000	**.020** 0.51	**.140** 3.56	**.225** 5.72	Tin Plated Brass	41900
	15.5-12 1.54-3.46	**.055-.083** 1.40-2.10	3000-7000	**.020** 0.51	**.140** 3.56	**.225** 5.72	Brass	42779-1[1]
	15.5-12 1.54-3.46	**.055-.083** 1.40-2.10	3000-7000	**.020** 0.51	**.140** 3.56	**.225** 5.72	Tin Plated Brass	42779-2[1]
	12-10 3.46-6.00	**.083-.110** 2.10-2.80	7000-12,000	**.025** 0.64	**.250** 6.35	**.225** 5.72	Tin Plated Brass	61074-1[1,2]
	12-9 3.46-6.38	**.083-.112** 2.10-2.85	7000-13,000	**.025** 0.64	**.180** 4.57	**.225** 5.72	Brass	41770
	12-9 3.46-6.38	**.083-.112** 2.10-2.85	7000-13,000	**.025** 0.64	**.180** 4.57	**.225** 5.72	Tin Plated Brass	41904
	12-9 3.46-6.38	**.083-.112** 2.10-2.85	7000-13,000	**.025** 0.64	**.180** 4.57	**.225** 5.72	Brass	42780-1[1]
	12-9 3.46-6.38	**.083-.112** 2.10-2.85	7000-13,000	**.025** 0.64	**.180** 4.57	**.225** 5.72	Tin Plated Brass	42780-2[1]

* These splices are recommended for applications using wire size 26 AWG [0.40 mm] or smaller.
[1] Increased terminal pitch.
[2] Increased U-diameter.

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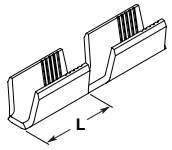
AMPLIVAR Splices (Continued)

5 Serrations — Pigtail Type

Product Facts

- Serration depths are varied within the splice to give optimum electrical / mechanical performance on all wire sizes
- Flat bottom of splice helps keep magnet wires on bottom as required during crimping



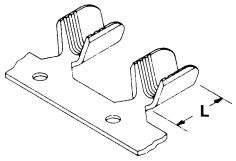
AWG/ mm²	Wire Range Solid Dia.	Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material	Part Number
20-17 0.50-1.00	**.030-.045** 0.80-1.15	1000-2000	**.016** 0.41	**.100** 2.54	**.225** 5.72	Tin Plated Brass	62670-2*[1]

*These splices are recommended for applications using wire size 26 AWG [0.40 mm] or smaller.
[1] Flat bottom.

Miniature Splice — Pigtail Type

Product Facts

- The miniature AMPLIVAR splice was developed for crimping thinner copper magnet wires having a diameter between .003 and .016 [0.08 and 0.40 mm] and has to be connected with a stranded conductor
- The diameter of one conductor strand should not exceed the magnet wire diameter to be applied

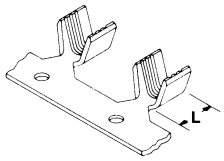


AWG/ mm²	Wire Range Solid Dia.	Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material	Part Number
27-21 0.10-0.40	**.014-.030** 0.35-0.75	200-850	**.012** 0.30	**.055** 1.40	**.195** 4.95	Tin Plated Brass	63431-1
25-18 0.16-0.90	**.015-.045** 0.45-1.10	300-1850	**.012** 0.30	**.070** 1.78	**.195** 4.95	Copper-Nickel	61166-1
24-18.5 0.20-0.75	**.020-.039** 0.55-1.00	480-1500	**.014** 0.36	**.080** 2.03	**.195** 4.95	Tin Plated Brass	62341-1
24-18.5 0.20-0.75	**.020-.039** 0.55-1.00	480-1500	**.014** 0.36	**.080** 2.03	**.195** 4.95	Brass	62341-2
24-18 0.20-0.80	**.020-.040** 0.55-1.00	480-1700	**.016** 0.41	**.070** 1.78	**.195** 4.95	Brass	62044-1

Subminiature Splice — Thru or Pigtail Type

Product Facts

- The compactness of these splices makes them ideal for use in small subfractional motors, transformers, relays, solenoids, indicator lamps and small appliance terminations
- These splices provide the same reliability as the larger AMPLIVAR splices



AWG/ mm²	Wire Range Solid Dia.	Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material	Part Number
30-26 0.05-0.15	**.010-.015** 0.30-0.50	100-300	**.010** 0.25	**.042** 1.08	**.080** 2.03	Tin Plated Brass	63621-2
24-19 0.26-0.60	**.020-.035** 0.55-0.90	400-1300	**.016** 0.41	**.070** 1.78	**.100** 2.54	Tin Plated Brass	62194-2
24-19 0.26-0.60	**.020-.035** 0.55-0.90	400-1300	**.016** 0.41	**.070** 1.78	**.100** 2.54	Gold Plated Brass	62194-4

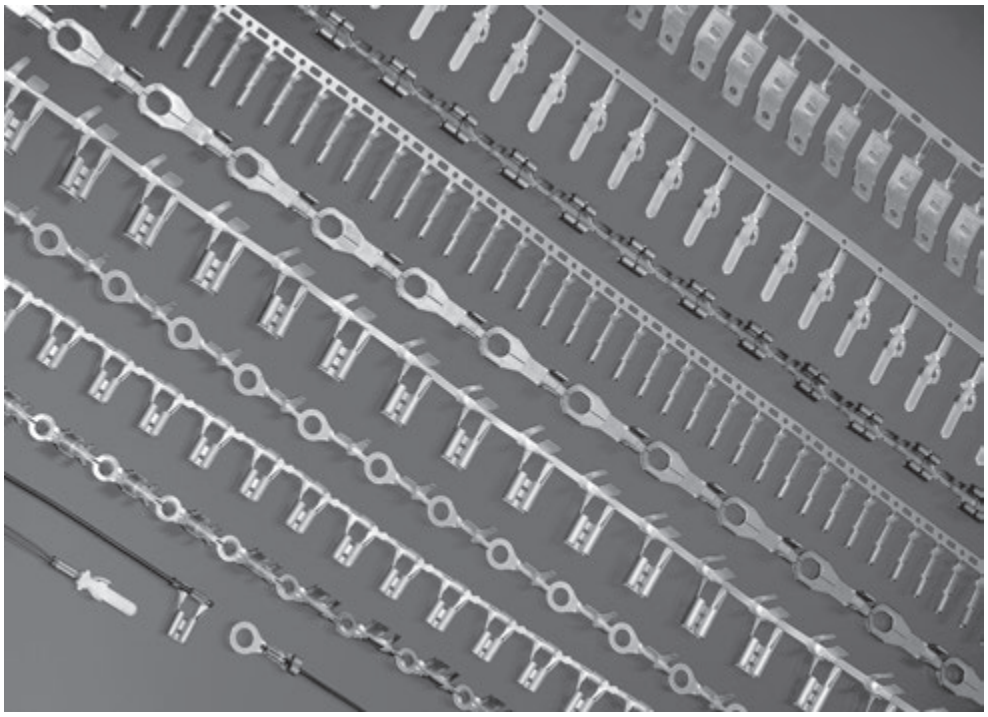
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

AMPLIVAR Terminals

Products Facts

- **Ring tongue terminals available for 2 to 3/8 stud diameters**
- **FASTON tab terminals accept .125 [3.18], .187 [4.75] and .250 [6.35] receptacle terminals**
- **FASTON receptacle terminals accept .187 [4.75] and .250 [6.35] tab terminals**
- **FASTON stator receptacle accept .250 x .032 [6.35 x 0.81] tab terminal**
- **Pin receptacle terminals accept .062 [1.57] and .090 [2.29] diameter pins**



Applications

- **Motor windings**
- **Transformers**
- **Power supplies**
- **Starters and alternators**

AMPLIVAR magnet wire terminals are designed to terminate copper and/or aluminum magnet wire.

Terminals are insulation displacing; therefore, magnet wires do not require a separate prestripping operation.

The unique wire barrel design, with serrations and burrs, produces a superior metal-to-metal compression crimp with excellent tensile strength.

Terminals are available in a variety of ring tongue, FASTON straight, flag and stator receptacles and tab quick-disconnect style terminals.

Direct connection to magnet wire eliminates the need for separate stranded wire terminal connection to input/output devices.

Matched with automated application tooling allows high production rates for stripform terminals.

Product specifications describe the product qualification test results completed by TE for consideration of product use in a specific application. They are intended for the Design and Product Reliability Engineer.

108-16000 —AMPLIVAR ring tongue terminals

108-1718 —AMPLIVAR .125 blade terminals [Type A]

Technical Documents

Application Specifications describe requirements for using the product in its intended application and or crimping information. They are intended for the Packaging and Design Engineer and the Machine Setup Person.

114-2145 AMPLIVAR .125 Blade Terminals

114-2146 AMPLIVAR FASTIN-FASTON Series 187 Tab Terminals

114-2070 AMPLIVAR FASTON Series 250 Tab Terminals

114-2144 AMPLIVAR FASTON Series .250 Straight Receptacle Terminals

114-2152 AMPLIVAR Flag FASTON Series 187 & 250 Receptacle Terminal

114-2080 AMPLIVAR Pin Receptacle Terminals [Type A]

114-2128 AMPLIVAR Stator Receptacle with FASTON Mating End

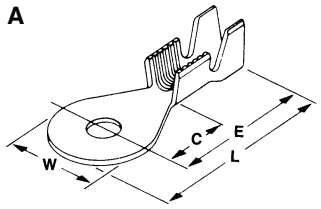
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

AMPLIVAR Terminals (Continued)

Ring Tongue Terminals

A



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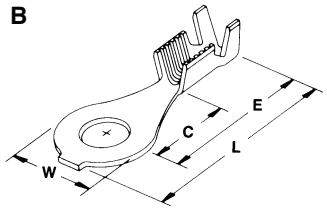

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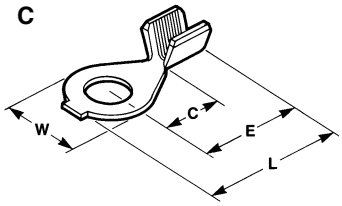
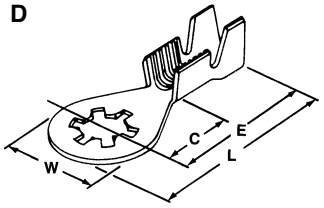
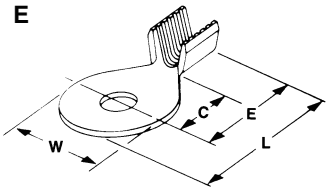


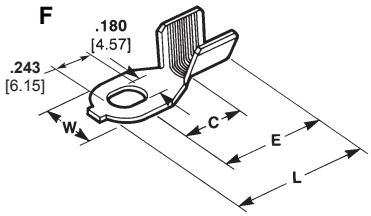
D



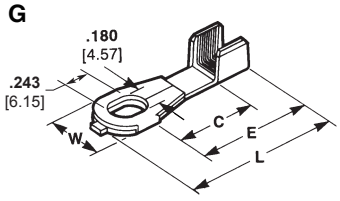
E



F



G



Wire Size Range 29–22 AWG [0.287–0.643 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
B	**.040-.060** 1.02-1.52	**.197** 5	10	**.020** 0.51	Tin Plated Brass	**.342** 8.69	**.833** 21.16	**.662** 16.81	**.312** 7.92	63399-1

Wire Size Range 23–19 AWG [0.574–0.912 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
B	**.100-.140** 2.54-3.56	**.171** 4.34	8	**.020** 0.51	Tin Plated Brass	**.342** 8.69	**.833** 21.16	**.662** 16.81	**.312** 7.92	60321-2
A	**.125-.165** 3.18-4.19	**.171** 4.34	8	**.020** 0.51	Tin Plated Brass	**.300** 7.62	**.700** 17.78	**.550** 13.97	**.230** 5.84	60323-2
B	**.100-.140** 2.54-3.56	**.197** 5	10	**.020** 0.51	Tin Plated Brass	**.342** 8.69	**.833** 21.16	**.662** 16.81	**.312** 7.92	60319-2
A	**.125-.165** 3.18-4.19	**.197** 5	10	**.020** 0.51	Tin Plated Brass	**.300** 7.62	**.695** 17.65	**.545** 13.84	**.230** 5.84	60325-2

Wire Size Range 22–18 AWG [0.643–1.024 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
B	**.125-.165** 3.18-4.19	**.265** 6.73	1/4	**.025** 0.64	Tin Plated Brass	**.420** 10.67	**.872** 22.15	**.662** 16.81	**.312** 7.92	63612-1
E	—	**.145** 3.58	6	**.025** 0.64	Tin Plated Brass	**.290** 7.37	**.500** 12.7	**.355** 9.02	**.195** 4.95	63649-1
C	—	**.265** 6.73	1/4	**.025** 0.64	Tin Plated Brass	**.420** 10.67	**.702** 17.83	**.492** 12.5	**.312** 7.92	62835-1
E	—	**.171** 4.34	8	**.025** 0.64	Brass Tin Plated Brass	**.290** 7.37	**.500** 12.7	**.355** 9.02	**.195** 4.95	63446-1 63446-2

Wire Size Range 20–16 AWG [0.813–1.29 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
A	**.125-.165** 3.18-4.19	**.171** 4.34	8	**.020** 0.51	Tin Plated Brass	**.300** 7.62	**.695** 17.65	**.545** 13.84	**.230** 5.84	60322-2
H	—	—	8	**.020** 0.51	Brass	**.340** 8.64	**1.220** 30.98	**.660** 16.76	**.500** 12.7	505071-1
L	—	—	3/8	**.020** 0.51	Brass	**.625** 15.88	**.939** 23.85	**.627** 15.93	**.467** 11.86	505075-1
M	—	—	3/8	**.020** 0.51	Brass	**.645** 16.38	**.950** 24.12	**.627** 15.93	**.467** 11.86	505072-1

Wire Size Range 18–14 AWG [1.024–1.628 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
B	**.100-.140** 2.54-3.56	**.171** 4.34	8	**.020** 0.51	Brass	**.342** 8.69	**.833** 21.16	**.662** 16.81	**.312** 7.92	60320-1
	.100-.140 2.54-3.56	**.171** 4.34	8	**.020** 0.51	Tin Plated Brass	**.342** 8.69	**.833** 21.16	**.662** 16.81	**.312** 7.92	60320-2
	.100-.140 2.54-3.56	**.197** 5	10	**.020** 0.51	Brass	**.342** 8.69	**.833** 21.16	**.662** 16.81	**.312** 7.92	60318-1
D	**.080-.120** 2.03-3.05	**.173** 4.39	8	**.028** 0.71	Lu-Bronze[1]	**.370** 9.4	**.915** 23.24	**.730** 18.54	**.380** 9.65	485079-1
	.080-.120 2.03-3.05	**.185** 4.7	8	**.028** 0.71	Lu-Bronze[1]	**.365** 9.27	**.882** 22.4	**.700** 17.78	**.380** 9.65	485044-1

[1]High conductivity copper-tin-zinc alloy.

Wire Range 17–13.5 AWG [1.151–1.78 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
F	—	—	8	**.020** 0.51	Brass	**.310** 7.87	**.692** 17.58	**.505** 12.83	**.312** 7.92	63147-1
	—	—	8	**.020** 0.51	Tin Plated Brass	**.310** 7.87	**.692** 17.58	**.505** 12.83	**.312** 7.92	63147-2*

*Available on request

Wire Size Range 14–12 AWG [1.628–2.05 mm] or (2) 15 AWG [1.45 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
G	—	—	8	**.025** 0.64	Brass	**.342** 8.69	**.945** 24.00	**.750** 19.05	**.570** 14.48	62755-1

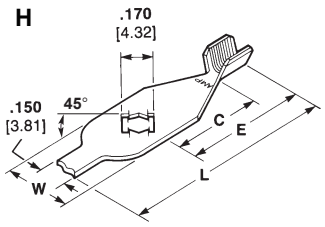
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

AMPLIVAR Terminals (Continued)

Stud Retaining Terminals

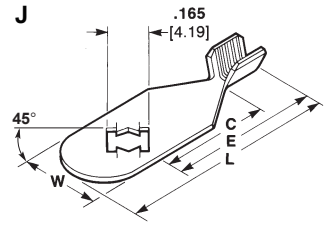
H



Wire Size Range 13–11 AWG [1.83–2.3 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
A	**.085-.150** 2.16-3.81	**.180** 4.57	8	**.025** 0.64	Brass	**.342** 8.69	**.833** 21.16	**.662** 16.81	**.312** 7.92	61710-1
C	—	**.180** 4.57	8	**.025** 0.64	Tin Plated Brass	**.342** 8.69	**.665** 16.89	**.495** 12.57	**.312** 7.92	350571-1
	—	**.197** 5.00	10	**.025** 0.64	Tin Plated Brass	**.342** 8.69	**.665** 16.89	**.495** 12.57	**.312** 7.92	640212-1

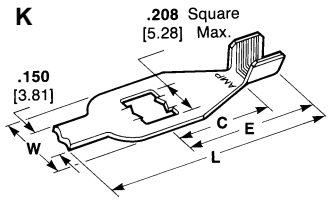
J



Wire Range (1) 18 AWG [1.024 mm] and (1) 20.5 AWG [0.768 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
J	—	—	8	**.020** 0.51	Brass	**.340** 8.64	**.955** 24.26	**.660** 16.76	**.500** 12.7	505044-1

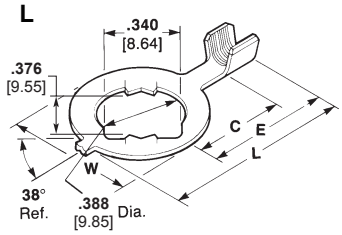
K



Wire Range (2) 17 AWG [1.51 mm] or (2) 15 AWG [1.45 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
B	**.150-.190 or (2) .115** 3.18-4.83 or (2) 2.92	**.171** 4.34	8	**.025** 0.64	Tin Plated Brass	**.342** 8.69	**.827** 21.01	**.656** 16.66	**.312** 7.92	60752-2
	.150-.190 or (2) .115 3.18-4.83 or (2) 2.92	**.197** 5.00	10	**.025** 0.64	Tin Plated Brass	**.342** 8.69	**.827** 21.01	**.656** 16.66	**.312** 7.92	61151-1

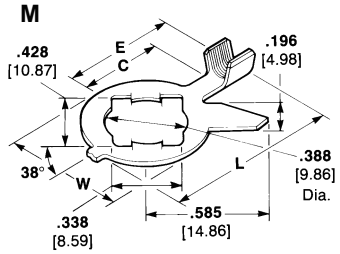
L



Wire Range 16–13.5 AWG [1.29–1.78 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
K	—	—	10	**.020** 0.51	Brass	**.340** 8.64	**1.220** 30.99	**.660** 16.76	**.500** 12.7	505079-1

M

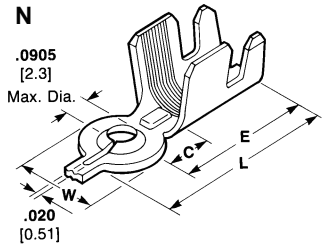


Wire Range 14.5 AWG [1.539 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
N	—	—	2	**.025** 0.64	Tin Plated Brass	**.240** 6.1	**.620** 15.75	**.500** 12.7	**.165** 4.19	505036-1
	—	—	2	**.025** 0.64	Brass	**.240** 6.1	**.620** 15.75	**.500** 12.7	**.165** 4.19	505036-3

Alternator Eyelet Terminal

N



Wire Range (2) 13 AWG [1.83 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material	Dimensions W	L	E	C	Part Number
B	**.150-.190** 3.81-4.83	**.171** 4.34	8	**.025** 0.64	Tin Plated Brass	**.342** 8.69	**.827** 21.00	**.656** 16.66	**.312** 7.92	63864-1

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

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AMPLIVAR Terminals (Continued)

125 Series Blade

Stock Thickness

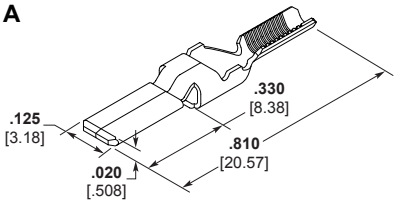
A = .013 [0.33]
B = .020 [0.51]

Mates with power blade receptacle terminals 61603-1, 61604-1, 770642-1 and 1217039-1

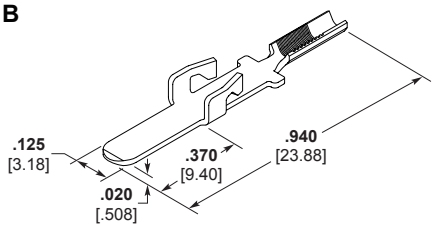
Housings

Contact TE engineering for housing options available

A



B



Type	Magnet Wire Range AWG	mm²	Solid Dia.	CMA	Material	Material Thickness	Part Number
A	27-20.5	0.10-0.45	**.015-.030** 0.35-0.75	200-850	Tin Plated Brass	**.013** 0.33	63871-1
	24-18	0.2-0.8	**.020-.040** 0.50-1.00	400-1600	Tin Plated Brass	**.013** 0.33	63889-1
	18.5-13.5	0.75-2.5	**.040-.070** 0.50-1.80	1500-5000	Tin Plated Brass	**.016** 0.41	63870
B	27-20.5	0.10-0.45	**.015-.030** 0.35-0.75	200-850	Tin Plated Brass	**.013** 0.33	1217072-1
	24-18	0.2-0.8	**.020-.040** 0.50-1.00	400-1600	Tin Plated Brass	**.020** 0.51	1217029-1
	18.5-13.5	0.75-2.5	**.040-.070** 0.50-1.80	1500-5000	Tin Plated Brass	**.020** 0.51	1217073-1

187 Series FASTON Tabs[1]

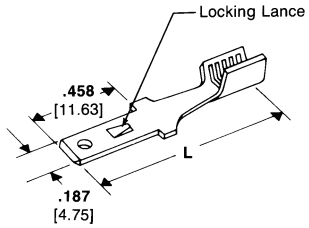
Board Thickness

A = .062–.072 [1.57–1.83]

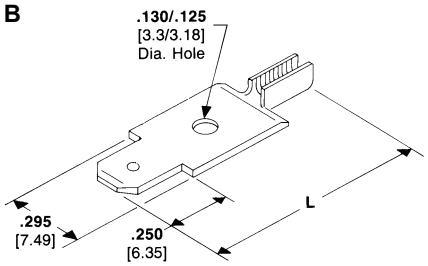
Stock Thickness

A = .020 [0.51]
B = .032 [0.81]

A



B



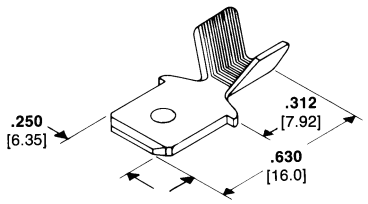
Type	Wire Range AWG	mm²	Material	Dim. L	Part Number
B	27-23	0.1-0.2	Tin Plated Brass	**.935** 23.75	63484-1[2]
A	24-21	0.2-0.4	Tin Plated Brass	**.935** 23.75	61440-3†
	22-16	0.3-1.4	Tin Plated Brass	**1.015** 25.78	62447-1
	15-13	1.6-2.6	Tin Plated Brass	**.935** 23.75	61442-3†
	15-12	1.6-3.0	Tin Plated Brass	**1.015** 25.78	62445-1

[2] Varnish resist coating.
† These part numbers are available upon special request, contact TE engineering for details.

250 Series FASTON Tabs[1]

Stock Thickness

.032 [0.81]



Wire Range AWG	mm²	Material	Part Number	Quick-Change Applicator[3]
14-12	2.0-3.0	Tin Plated Brass	62922-1[2]	466510-1

[2] Varnish resist coating.
[3] Quick-change applicator for AMP-O-LECTRIC machine 565435-5. For AMPOMATOR machine and other machines not listed, contact TE.

[1]Mates with FASTON receptacles. See Catalog 82004.

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

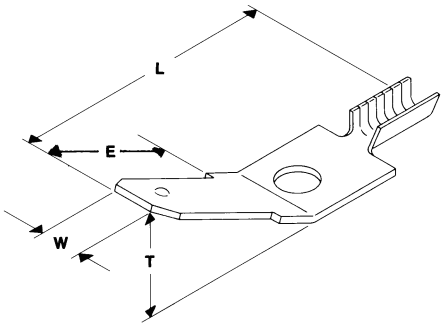
Dimensions are shown for reference purposes only. Specifications subject to change.

AMPLIVAR Terminals (Continued)

250 Series FASTON Tabs[1]
(Continued)

Stock Thickness
.032 [0.81]

Mates with FASTON receptacles.
See Catalog 82004.

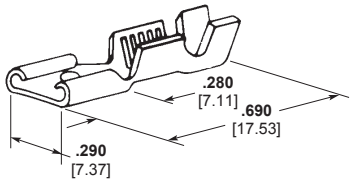


Wire Range AWG	Wire Range mm²	Material	Dimensions W	Dimensions L	Dimensions E	Dimensions T	Part Number
28-23.5	0.08-0.2	Tin Plated Brass	**.250** 6.35	**.580** 14.73	**.342** 8.69	45°	63136-1
25-19.5	0.16-0.6	Tin Plated Brass	**.250** 6.35	**.650** 16.51	**.450** 11.43	30°	63140-1
23-19	0.2-0.6	Tin Plated Brass	**.250** 6.35	**.225** 5.72	**.583** 14.81	15°	63165-1

250 Series FASTON Receptacles[1]

Stock Thickness
.016 [0.41]

Mates with FASTON tabs.
See catalog 82004.



Magnet Wire Range CMA	Magnet Wire Range mm² Dia.	Insulation Diameter	Mating Tab Thk.	Material	Material Thickness	Part Number	Applicator No.
24-19	0.51-0.98	**.050-.080** 1.30-2.00	**.020** 0.51	Brass / Tin Plated Brass	**.016** 0.41	63623-1[1] / 63623-2[1]	567451-2[2]
23-19 or (2) 24 or (2) 26	0.60-0.98 or (2) 0.57 or (2) 0.45	**.050-.100** 1.30-2.55	**.025** 0.64	Brass	**.016** 0.41	62069-1	567343-2[2]
20-16 or (2) 23 or (2) 20	0.85-1.37 or (2) 0.63 or (2) 0.88	**.100-.140 or (2) .060 Max.** 2.55-3.55	**.032** [0.81]	Brass / Tin Plated Brass	**.016** 0.41	60384-1 / 60384-2	466010-1[2]
20-16	0.85-1.37	**.100-.140** 2.55-3.55	**.020** 0.51	Brass	**.016** 0.41	62080-1	466010-1[2]
18-14 or (2) 17	1.02-1.71	**.120-.170 or (2) .060 Max.** 3.05-4.30	.032 [0.81]	Tin Plated Brass	**.016** 0.41	60385-2	466816-1[2]
18-14 or (2) 19	1.02-1.71	**.120-.170** 3.05-4.30	**.020** 0.51	Brass	**.016** 0.41	63622-1[1]	466816-1[2]
18-14 or (2) 19	1.02-1.71	**.120-.170** 3.05-4.30	**.020** 0.51	Brass	**.016** 0.41	1217835-1[1]	466816-1[2]

[1] Low insertion force
[2] Quick-change applicator for AMP-O-LECTRIC machine 565435-5.

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

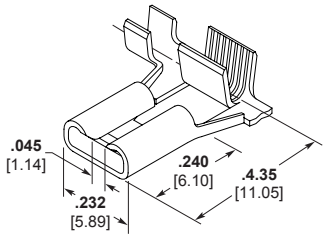
Dimensions are shown for reference purposes only. Specifications subject to change.

AMPLIVAR Terminals (Continued)

187 Series FASTON Flag Receptacles

Stock Thickness

.016 [0.41]



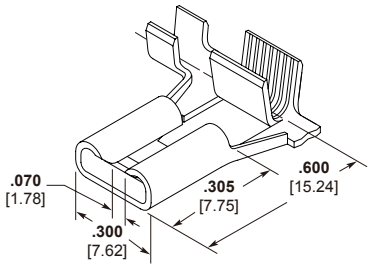
Magnet Wire Range CMA	Magnet Wire Range mm² Dia.	Insulation Diameter	Mating Tab Thk.	Material	Material Thickness	Part Number	Applicator No.
500-960	0.56-0.79	**.020-.040** 0.51-1.02	**.020** 0.51	Tin Plated Brass	**.016** 0.41	63942-1	566411-1[1]
24-20 AWG	0.51-0.81	**.020-.040** 0.51-1.02	**.032** 0.81	Tin Plated Brass	**.016** 0.41	1217624-1	566411-1[1]
1500-2350	0.99-1.22	**.020-.040** 0.51-1.02	**.020** 0.51	Tin Plated Brass	**.016** 0.41	63941-1	566410-1[1]
2000-4050	1.14-1.63	**.020-.040** 0.51-1.02	**.020** 0.51	Tin Plated Brass	**.016** 0.41	63940-1	680353-3[2]
2000-4050	1.14-1.63	**.020-.040** 0.51-1.02	**.032** 0.81	Tin Plated Brass	**.016** 0.41	1217417-1	680353-3[2]

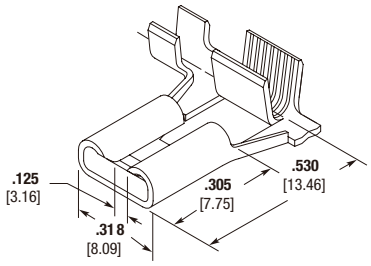
[1] Standard applicator for AMP-O-LECTRIC Model G splice terminator No. 356462-2.
[2] Quick-change applicator for AMP-O-LECTRIC Model G splice terminator No. 356462-1.

250 Series FASTON Flag Receptacles

Stock Thickness

.018 [0.45]





Magnet wire range CMA	Magnet wire range mm² Dia.	Insulation Diameter	Mating Tab Thk.	Material Thickness	Part Number	Applicator No.
500-1900	—	**.100-.120** 2.54-3.05	**6.35** 0.81	**0.0157** 0.4	1742881-1	1855633
1000-2700	—	**.100-.120** 2.54-3.05	**6.35** 0.81	**0.0157** 0.4	1742882-1	1855634
1500-4220	—	**.075-.125** 1.90-3.18	**6.35** 0.81	**0.0157** 0.4	1742977-1	1855680
4000-8500	—	**.110-.150** 2.79-3.81	**6.35** 0.81	**0.0157** 0.4	1742979-1	1855681

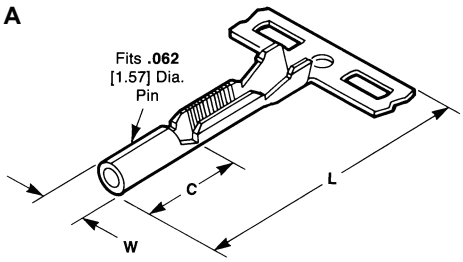
[1] Quick-change applicator for AMP-O-LECTRIC Model G splice terminator No. 356462-1.

Pin Receptacles

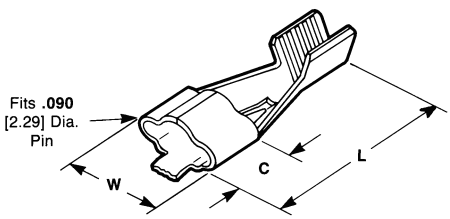
Stock Thickness

.016 [0.41]

A



B



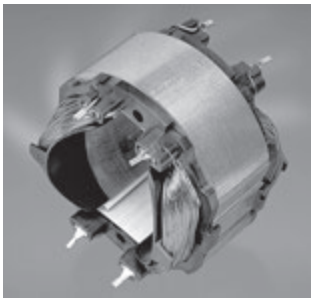
Type	Wire Range AWG	Wire Range mm²	Insulation Dia. Range	Material	Dimensions W Max.	Dimensions L	Dimensions C	Part Number
A	29-22	0.07-0.3	**.040-.060** 1.02-1.52	Tin Plated Brass	**.084** 2.13	**.590** 14.99	**.195** 4.95	63506-1
B	21-16	0.4-1.4	—	Tin Plated Phos. Bronze	**.235** 5.97	**.660** 16.76	**.250** 6.35	60177-2

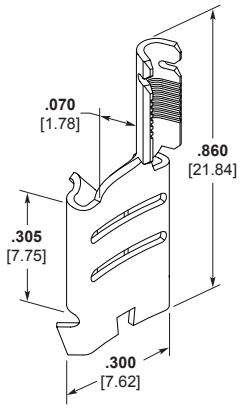
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

AMPLIVAR Terminals (Continued)

250 Series Stator Receptacles — 7 Serrations





Magnet Wire Range				Mating Tab Thickness	Stock Thickness	Crimp Width	Material	Part Number
AWG	mm²	Solid Dia.	CMA					
27-22	0.10-0.3	**.014-.026** 0.35-0.66	200-700	**.032** 0.81	**.018** 0.44	**.070** 1.77	Tin Plated Brass	63480-1
21-15	0.4-1.6	**.028-.060** 0.71-1.52	800-3600	**.032** 0.81	**.018** 0.44	**.110** 2.79	Tin Plated Brass	62381-1
22-15.5	0.3-1.5	**.053-.086** 1.35-2.18	2800-7400	**.032** 0.81	**.018** 0.44	**.155** 3.94	Tin Plated Brass	63964-1

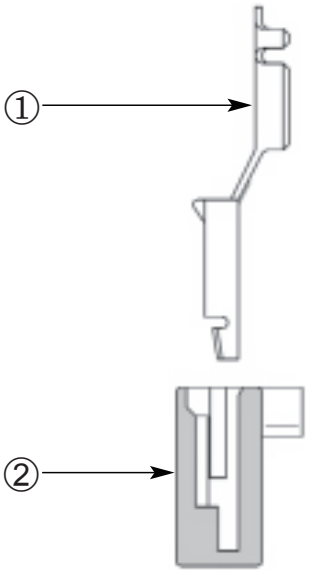
Stator Terminal — Receptacle .250 x .032 [6.35 x 0.81]

① **Stator Terminal** with Receptacle .250 x .032 [6.35 x 0.81]

② **Plastic Cavity**

Production only according to TE Specifications (contact TE engineering for details).

For design and material selection TE engineering **has to be** contacted before decision. The terminal is separated from the strip and placed automatically into the cavity.

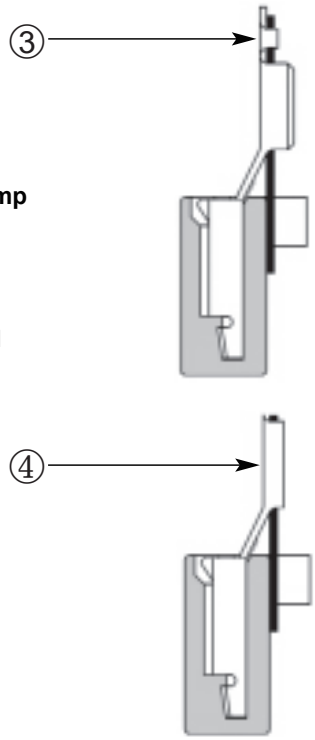


③ **Wire Clamping Barrel**

The magnet wire is positioned via posts into the AMPLIVAR crimp barrel and fixed inside clamping barrel.

④ **AMPLIVAR Terminal Crimp**

The application equipment crimps the AMPLIVAR product connection and cuts the extending clamping barrel in one operation.



Additional versions upon request.

Application tooling for production line integrating available upon request.

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.