

AMPLIMITE .050 Series Cable Assemblies, Series III

To meet Standard
Applications the following
106 ohm, black jacketed
cable assemblies are available. For AMPLIMITE .050
Series cable assemblies that
meet other impedance
requirements or other
lengths consult TE.



IPI-2 and HIPPI

| Annlination | Accombly | Part Numbers | | | |
|-----------------------|--|--------------|-----------|-----------|--|
| Application | Assembly | 2 Feet | 2 Meters | 3 Meters | |
| SCSI-2 | 50 pos050 Series Plug to 50 pos050 Series Plug | 750254-1 | 5750254-2 | 750254-3 | |
| SCSI-2* | 68 pos050 Series Plug to 68 pos050 Series Plug | _ | 5750732-2 | 5750732-4 | |
| RS-232 (Alternate) | 26 pos050 Series Plug to 26 pos050 Series Plug | _ | 750255-2 | 750255-3 | |

| A !! !! | Application Accombly | | Part Numbers | | | | |
|--------------------|--|----------|--------------|-----------|--|--|--|
| Application | Assembly | 5 Meters | 15 Meters | 25 Meters | | | |
| IPI-2 and HIPPI | 100 pos050 Series Plug to 100 pos050 Series Plug | 749755-2 | _ | _ | | | |

^{*}This version has spring latches. Consult TE for availability of jackscrew version.

Note: .050 centerline ribbon cable assemblies are available in single or double ended versions. These assemblies are made using AMPLIMITE .050 Series panel mount connectors, AMPLIMITE .050 Series all-plastic connectors and AMP-LATCH Novo receptacles. Consult TE.

SCSI—Small Computer Systems Interface HIPPI—High Performance Parallel Interface IPI—Intelligent Peripheral Interface



AMPLIMITE .050 Series Right-Angle Receptacle Headers, Series III



Materials:

Housing — Thermoplastic, 94V-0 rated, black. SMT compatible

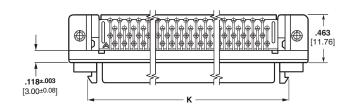
Shell — Steel, plated bright nickel over copper

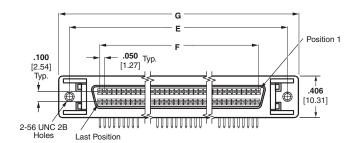
Bracket — Zinc, plated nickel over copper

Contacts — Phosphor bronze, duplex plated [.000030] 0.00076 min. gold on mating end; tin on solder end; all underplated nickel

Technical Documents:

Product Specifications — 108-1228 **Application Specifications** — 114-40029





Note: Refer to TE Customer drawings and Application Spec for PCB & panel layouts.







Shown With Boardlocks

Shown With Boardlocks

Shown With Boardlocks

| | | | | Part Numbers | | | | | | | |
|-----------------------|--|--|--|--|------------------------------------|---|--|---|---|--|--|
| | | _ | | w/ Rails and | w/ Rails and Latchblocks w/o Rails | | | w/o | w/o Rails, w/o Latchblocks | | |
| | Dime | nsions | | | | | | With .100 [2.54] | | With .120 [3.05] | |
| E | F | G | K | Solde | Solder Tails | | Solder Tails | | Solder Tails | | |
| | | | | Without Boardlocks | With Boardlocks | Without Boardlocks | With Boardlocks | Without Boardlocks | With Boardlocks | With Boardlocks | |
| 1.580 40.13 | .950 24.13 | 1.815 46.10 | 1.415 35.94 | _ | 1761028-2 | _ | 5787082-3 | _ | 5787170-4* | _ | |
| 1.830 46.48 | 1.200 30.48 | 2.065 52.45 | 1.665 42.29 | 5787190-5 | 1761028-3 | 5787394-5 | 5787082-5 | _ | 5787170-5* | 5787362-5* | |
| 1.830 46.48 | 1.200 30.48 | 2.065 52.45 | 1.665 42.29 | _ | 5787266-5* | _ | 5787395-5* | _ | _ | _ | |
| 2.280 57.91 | 1.650 41.91 | 2.515 63.88 | 2.115 53.72 | 5787190-7 | 1761028-4 | 5787394-7 | 5787082-7 | 5787169-7* | 5787170-7* | 5787362-7* | |
| 3.080 78.23 | 2.450 62.23 | 3.315 84.20 | 2.915 74.04 | _ | 1761028-5 | _ | 5787082-9 | 5787169-9* | 5787170-9* | 5787362-9* | |
| | 40.13 1.830 46.48 1.830 46.48 2.280 57.91 3.080 | 1.580 .950 40.13 24.13 1.830 1.200 46.48 30.48 1.830 1.200 46.48 30.48 2.280 1.650 57.91 41.91 3.080 2.450 | 1.580 .950 1.815 40.13 24.13 46.10 1.830 1.200 2.065 46.48 30.48 52.45 1.830 1.200 2.065 46.48 30.48 52.45 2.280 1.650 2.515 57.91 41.91 63.88 3.080 2.450 3.315 | E F G K 1.580 .950 1.815 1.415 40.13 24.13 46.10 35.94 1.830 1.200 2.065 1.665 46.48 30.48 52.45 42.29 1.830 1.200 2.065 1.665 46.48 30.48 52.45 42.29 2.280 1.650 2.515 2.115 57.91 41.91 63.88 53.72 3.080 2.450 3.315 2.915 | Dimensions With .10 | Dimensions With .100 [2.54] Solder Tails With .100 [2.54] | Dimensions With .100 [2.54] With .15 | Dimensions With .100 [2.54] Solder Tails Solder Tails With .100 [2.54] Solder Tails Without Boardlocks With Boardlocks Without Boardlocks | Dimensions With .100 [2.54] With .100 [2.54] Solder Tails Solder Tails Solder Tails With .100 [2.54] With .110 | Dimensions With .100 [2.54] With .100 [2.54] Solder Tails Solder Tails With .100 [2.54] Solder Tails With .100 [2.54] With .100 [2.54] Solder Tails With .100 [2.54] With .100 [2.54] Solder Tails With .100 [2.54] With .100 [2.54] | |

^{*}Has 4-40 threaded mating holes (2 places), for use with female screwlock Part No. 750644-1.

Note: All part numbers are RoHS compliant.



AMPLIMITE .050 Series Vertical Receptacle Headers With Through-Hole Tails, Series III



Materials:

Housing—Thermoplastic, 94V-0 rated, black. SMT compatible

Shell—Steel, plated bright nickel over copper

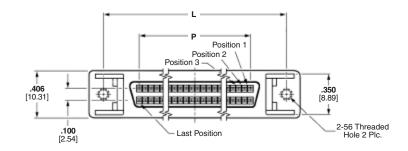
Bracket—Zinc, plated nickel over copper

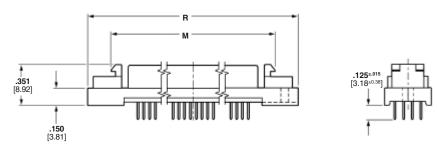
Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end; tin on solder end; all underplated nickel

Technical Documents:

Product Specifications—108-1228
Application Specifications—
114-40029

Note: Extra pin contact protection is provided by rails, which facilitate a straight-out, unmating motion. A side-to-side rocking motion should not be used to disengage the connector system.





Note: Refer to TE Customer drawings and Application Spec for PCB & panel layouts.



| No. of | | Dime | nsions | | Part Numbers | | | |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|----------------|-----------|--|
| Pos. | L | M | Р | R | w/ Rails & Latchblocks | w/ Latchblocks | Plain | |
| 20 | 1.080 27.43 | .915 23.24 | .450 11.43 | 1.315 33.40 | 5749069-1 | _ | _ | |
| 26 | 1.230 31.34 | 1.065 27.05 | .600 15.24 | 1.465 37.21 | 5749069-2 | _ | _ | |
| 28 | 1.280 32.51 | 1.115 28.32 | .650 16.51 | 1.515 38.48 | _ | 5749721-3 | _ | |
| 40 | 1.580 40.13 | 1.415 35.94 | .950 24.13 | 1.815 46.10 | 5749069-4 | _ | _ | |
| 50 | 1.830 46.48 | 1.665 42.29 | 1.200 30.48 | 2.065 52.45 | 5749069-5 | 5749721-5 | 5749070-5 | |
| 68 | 2.280 57.91 | 2.115 53.72 | 1.650 41.91 | 2.515 63.88 | 5749069-7 | 5749721-7 | 5749070-7 | |
| 80 | 2.580 65.53 | 2.415 61.34 | 1.950 49.53 | 2.815 71.50 | 5749069-8 | _ | _ | |
| 100 | 3.080 78.23 | 2.915 74.04 | 2.450 62.23 | 3.315 84.20 | 5749069-9 | _ | 5749070-9 | |

Note: All part numbers are RoHS compliant.



AMPLIMITE .050 Series Vertical Receptacle Headers With Through-Hole Tails, Series III (Continued)

.120 [3.05] Solder Tail Length



Materials:

Housing—Thermoplastic, 94V-0 rated, black. SMT compatible

Shell—Steel, plated bright nickel over copper

Bracket—Zinc, plated nickel over copper

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end; tin on solder end; all underplated nickel

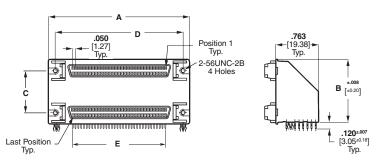
Related Product Data:

Required Hardware—page 26

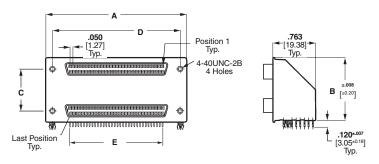
Technical Documents:

Product Specifications—108-1228-1 **Application Specifications**— 114-40029

Note: Extra pin contact protection is provided by rails, which facilitate a straight-out unmating motion. A side-to-side rocking motion should not be used to disengage the connector system.



Rails and Latch Blocks



Flat Top Configuration

Note: Refer to TE Customer drawings and Application Spec for PCB & panel layouts.

| No. of Pos. | | Dimensions | | | | | | |
|----------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|------------|--|--|
| | Α | В | С | D | E | Part No. | | |
| 50/50 | 2.085 52.96 | .874 22.20 | .500 12.70 | 1.830 46.48 | 1.200 30.48 | 5787656-1 | | |
| 68/68 | 2.535 64.39 | 1.124 28.55 | .750 19.05 | 2.280 57.91 | 1.650 41.91 | 5787678-1 | | |
| 68/68 | 2.535 64.39 | 1.124 28.55 | .750 19.05 | 2.280 57.91 | 1.650 41.91 | 5787679-1* | | |

^{*}Flat-top configuration.

Note: All part numbers are RoHS compliant.



AMPLIMITE .050 Series Vertical Receptacle Headers, Series III, with ACTION PIN Contacts (.050 x .100 [1.27 x 2.54] Centerlines)

Product Facts

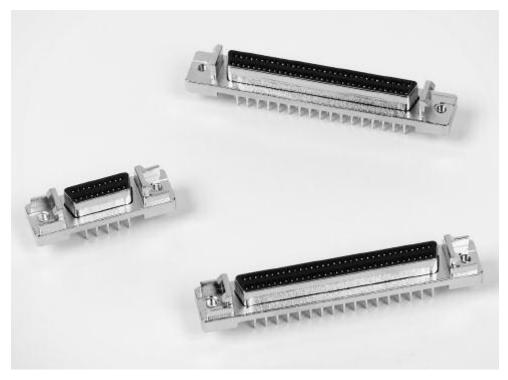
- Recognized under the Component Program of the Underwriters Laboratories, Inc., File No. E28476
- Certified by Canadian Standards Association, File No. 1088108 (LR 7189A-207)



 Produced under a Quality Management System certified to ISO 9001

A copy of the certificate is available upon request





Shielded AMPLIMITE .050 Series headers with ACTION PIN contacts offer a high-density D type interface, and a solderless board-mount interconnection. These vertical mount headers are available in 20, 26, 50, 68 and 100 contact sizes. Choice of configurations includes; headers with rails and latch blocks, with latch blocks only, and without rails and latch blocks.

ACTION PIN contact tails are available in two lengths; .173 [4.39] for pc boards with a nominal thickness of .062 [1.56] to .093 [2.36], and .280 [7.11] for pc boards with a nominal thickness of .125 [3.18] to .200 [5.08].

AMPLIMITE .050 Series headers with ACTION PIN contacts are compatible with SCSI-2, SCSI-3, EIA RS-232, IPI-2 and HIPPI standards.

Principle of the AMPLIMITE .050 Series Compliant ACTION PIN Contact

When an AMPLIMITE .050 Series compliant ACTION PIN contact is inserted into a plated-through-hole, two spring members are compressed, exerting force against the hole for a gas-tight connection. The diameter of the hole is smaller than the diagonal size of the pin.

The beam characteristics of the pin are designed so that a plastic, as well as an elastic, deformation takes place during insertion. The two spring members compress to different degrees to accommodate hole tolerances. The compliant pin also reduces strain on the board. With a rigid pin, the elastic strain energy is stored entirely in the board, leading to damage of the platedthrough holes. With the

AMPLIMITE .050 Series compliant ACTION PIN contact, the residual force of the elastic deformation maintains stored energy to produce a gas-tight contact zone between the pin and the plated-through-hole. This ensures long term electrical and mechanical reliability of the interconnection.

Technical Documents: Product Specification—

108-1228-2

Application Specification—114-40029

Instruction Sheets-

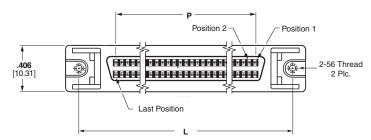
pc board support

408 6923—AMP Manual Arbor Frame Assembly 408 9027—AMP Adapter Kit for Greenerd Frame Assemblies 3A and 3B 408 9757—Seating Instructions and Tooling 408 6927—Recommendations for



AMPLIMITE .050 Series Vertical Receptacle Headers, with ACTION PIN Tails, Series III





Materials:

Housings—Thermoplastic, 94V-0 rated, black, SMT compatible

Shell—Carbon steel, plated bright tin over copper

Bracket—Zinc, plated nickel over copper

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end; tin on solder end; all underplated nickel

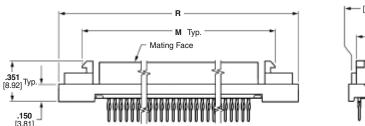
Technical Documents:

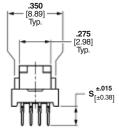
Product Specifications-

108-1228-2

Application Specifications— 114-40029

Note: Extra pin contact protection is provided by rails, which facilitate a straight-out unmating motion. A side-to-side rocking motion should not be used to disengage the connector





Note: Refer to TE Customer drawings and Application Spec for PCB & panel layouts.







Part Number 786554-1

Part Number 786554-7

Part Number 786155-7

| No. of | | ı | Dimension | S | | Part Numbers | | | |
|--------|-----------------------|-----------------------|----------------------|-----------------------|---------------------|------------------------|----------------|-----------|---|
| Pos. | L | M | Р | R | S | w/ Rails & Latchblocks | w/ Latchblocks | Plain | |
| 20 | 1.080 27.43 | .915 23.24 | .450 11.43 | 1.315 33.40 | .173 4.39 | 5786554-1 | _ | _ | |
| 26 | 1.230 31.34 | 1.065 27.05 | .600 15.24 | 1.465 37.21 | .173 4.39 | 5786554-2 | _ | _ | |
| | 1.830 | 1.665 | 1.200 | 2.065 | .173 4.39 | 5786554-5 | 5786155-5 | 5786555-5 | |
| 50 | 46.48 | 42.29 | 30.48 | 52.45 | 52.45 | .280 7.11 | 5786556-5 | _ | _ |
| 68 | 2.280 | 2.115 | 1.650 | 2.515 | .173 4.39 | 5786554-7 | 5786155-7 | 5786555-7 | |
| 00 | 57.91 | 53.72 | 41.91 | 63.88 | .280 7.11 | _ | 786155-7 | 5786557-7 | |
| 100 | 3.080 78.23 | 2.915 74.04 | 2.450 62.23 | 3.315 84.20 | .173 4.39 | 5786554-9 | _ | 5786555-9 | |
| 120 | 3.580 90.93 | 3.415 86.74 | 2.950 74.93 | 3.815 96.90 | .173 4.39 | 1-5786554-0 | _ | _ | |

Note: All part numbers are RoHS compliant.



AMPLIMITE .050 Series Cable Plug Connectors, Series III

Shielded Plugs



Shielded Plug



Wire Lacing Termination Covers

Materials:

Housing and Covers-

Thermoplastic, 94V-0 rated, black or gray

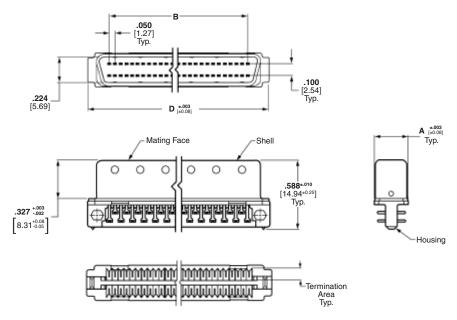
Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, tin on termination end, all underplated .nickel

Shell—Steel, plated tin-nickel alloy over nickel over min. copper

Recommended wire size—28 AWG [0.08-0.09mm²] or 30 AWG [0.05mm²], solid or 7 strand, with a .029-.036 [0.74-0.89] insulation diameter.

Technical Documents: Product Specifications—108-1228 Application Specifications— 114-40029

Instruction Sheet—408-9427



Shielded Plug with Unassembled Wire Lacing Termination Covers

Connector With Unassembled Wire Lacing Termination Covers

| | | | | Part Nu | umbers |
|--------|---------------------|-----------------------|-----------------------|--------------------------------------|-------------------------------------|
| No. of | | Dimensions | | .032036 | .029031 |
| Pos. | Α | В | D | [0.81-0.91] Outer Wire Dia. Black | [0.74-0.79] Outer Wire Dia. Gray |
| 26 | .293 7.44 | .600 15.24 | .979 24.87 | 5750913-2 | 1-5750913-2 |
| 50 | .293 7.44 | 1.200 30.48 | 1.579 40.11 | 5750913-5 | 1-5750913-5 |
| 68 | .293 7.44 | 1.650 41.91 | 2.029 51.54 | 5750913-7 | 1-5750913-7 |
| 100 | .373 9.47 | 2.450 62.23 | 2.829 71.86 | _ | 1-5750913-9 |

Notes: 1. Plug connector requires backshell kit for complete assembly. Refer to pages 16-19 for backshell kit part numbers.

2. For termination, cover closing and wire lacing tooling, see page 14.



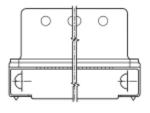
AMPLIMITE .050 Series Cable Plug Connectors, Series III (Continued)

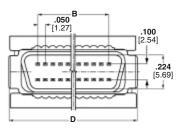
Shielded Plugs

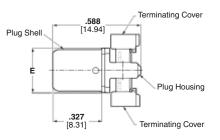
(Continued)



Shielded Plug with Unassembled Standard Termination Covers









Shielded Plug with Assembled Standard Termination Covers

Materials:

Housing and Covers-

Thermoplastic, 94V-0 rated, black

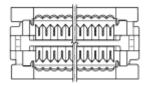
Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, tin on termination end, all underplated nickel

Shell—Steel, plated tin-nickel alloy over nickel over copper

Recommended wire size³ — 28 AWG [0.08-0.09mm²] or 30 AWG [0.05mm²], solid or 7 strand, with a .029-.036 [0.74-0.89] insulation diameter.

Technical Documents: Product Specifications—108-1228 Application Specifications— 114-40029

Instruction Sheet—408-9427



Shielded Plug with Assembled or Unassembled Standard Termination Covers

Note: Refer to TE Customer drawings and Application Spec for PCB & panel layouts.

Connectors With Standard Termination Covers

| No. of | | Dimensions | | Part Nun | Part Numbers | | |
|--------|-----------------------|-----------------------|---------------------|-----------------------|---------------|--|--|
| Pos. | В | D E | | w/Rails & Latchblocks | w/Latchblocks | | |
| 20 | .450 11.43 | .829 21.06 | .293 7.44 | 5749111-1 | 5749621-1 | | |
| 26 | .600 15.24 | .979 24.87 | .293 7.44 | 1-5749111-0 | 5749621-2 | | |
| 28 | .650 16.50 | 1.029 26.14 | .293 7.44 | _ | 5749621-3 | | |
| 40 | .950 24.13 | 1.329 33.76 | .293 7.44 | 5749111-3 | 5749621-4 | | |
| 50 | 1.200 30.48 | 1.579 40.11 | .293 7.44 | 5749111-4 | 5749621-5 | | |
| 68 | 1.650 41.91 | 2.029 51.54 | .293 7.44 | 5749111-6 | 5749621-7 | | |
| 80 | 1.950 49.53 | 2.329 59.16 | .373 9.47 | 5749111-7 | 5749621-8 | | |
| 100 | 2.450 62.23 | 2.829 71.86 | .373 9.47 | 5749111-8 | 5749621-9 | | |
| 120 | 2.950 74.93 | 3.329 84.56 | .373 9.47 | 5749111-9 | 1-5749621-0 | | |

Notes: 1. Plug connector requires backshell kit for complete assembly and must use round jacketed cable (discrete or laminated). Refer to pages 16-19 for backshell kit part numbers.

2. For termination tooling, see pages 28 & 29.

3. The CHAMPOMATOR 2.5 Automatic Termination Machine will accept diameters as low as .023 [0.58].

Note: All part numbers are RoHS compliant.



AMPLIMITE .050 Series Cable Plug Connectors, Series III (Continued)

AMPLIMITE .050 Series Connector Application Tooling for Use with Wire Lacing Termination Covers

Manual Arbor Frame Assembly—Part No. 58024-1

Equipped with Cover Lacing Assembly—**Part No. 91293-1** (Includes Seating Bars for 50 and 100 Positions). See Table 3 for Seating Bar Part Numbers.

Extra Lacing Stations available for use with Lacing Assembly—Part No. 91293-1 Order Lower Tooling Assembly—Part No. 543481-1

Note: AMP Manual Miniature Applicator Frame Assembly, Cover Closing Kit, and Staple Insertion Kit each must be ordered separately by part number.



Arbor Frame, Part No. 58024-1 Equipped with Cover Lacing Assembly, Part No. 91293-1



Lower Tooling Assembly Part No. 543481-1



Miniature Applicator Frame Assembly Part No. 91295-1 Equipped with Cover Closing Kit Part No. 543508-1

Table Number 3

| No. of Pos. | Seating Bar Part No. |
|----------------|-------------------------|
| 26 | 543494-2 |
| 40 | 543494-3 |
| 50 | 543494-1 |
| 68 | 543502-2 |
| 100 | 543502-1 |

Note: All Tooling must be ordered separately by part number.



Seatings Bars



AMPLIMITE .050 Series Cable Receptacle Connectors, Series III

Shielded Receptacles



Shielded Receptacle with Assembled **Termination Covers**

Materials:

Housing and Covers-

Thermoplastic, 94V-0 rated, black

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, tin on termination end, all underplated nickel

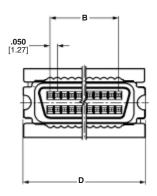
Shell—Steel, plated bright tin over copper

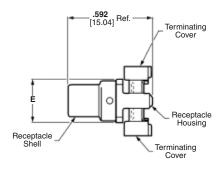
Recommended wire size-

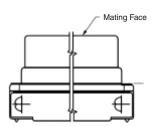
28 AWG [0.08-0.09mm²] or 30 AWG [0.05mm²], solid or 7 strand, with a .029-.036 [0.74-0.89] insulation diameter.

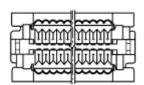
Technical Documents:

Product Specifications—108-1228 Application Specifications-114-40029









| No. of | | Dimensions | | Part N | Numbers | |
|----------------|-----------------------|-----------------------|-------------------------|---|-----------|--|
| No. of Pos. | В | Dilliciisions | E | Connectors With Standard Termination Covers | | |
| . 00. | | _ | Assembled Covers | Unassembled Covers | | |
| 40 | .950 24.13 | 1.329 33.76 | .293 7.44 | _ | _ | |
| 50 | 1.200 30.48 | 1.579 40.11 | .293 7.44 | 5749210-5 | 5749699-5 | |
| 68 | 1.650 41.91 | 2.029 51.54 | .293 7.44 | 5749210-7 | 5749699-7 | |
| 100 | 2.450 62.23 | 2.829 71.86 | .373 9.47 | _ | 5749699-8 | |

Notes: 1. Receptacle connector requires backshell kit for complete assembly. Refer to pages 16-19 for backshell kit part numbers.

- 2. For termination, cover closing and wire lacing tooling, see page 14.
 3. For Termination Tooling other than Wire Lacing see pages 28 & 29.



AMPLIMITE .050 Series Shielded Backshell Kits, With Jackscrews, Series III



Straight Exit Male Jackscrews Style A



Straight Exit Male Jackscrews Style B



Straight Exit Female Jackscrews Style A

Materials:

Jackscrews—Stainless steel or steel, black electroless nickel plated

Jackscrew Caps—Polyolefin or PVC, black

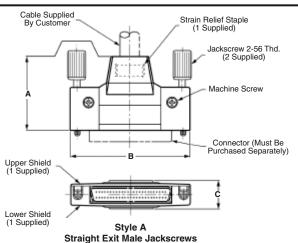
2-56 Screws—Stainless steel

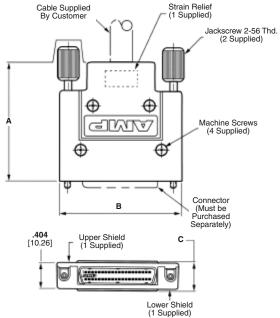
Backshell—Zinc, plated nickel over copper

Strain Relief Staple—Steel, plated tin over nickel

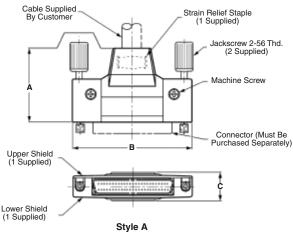
Technical Documents:
Product Specifications—108-1228
Application Specifications—

Instruction Sheet—408-9427





Style B
Straight Exit Male Jackscrews



Style A Straight Exit Female Jackscrews

114-40029



AMPLIMITE .050 Series Shielded Backshell Kits, With Jackscrews, Series III (Continued)

| No. of | 0. 1. | | Dimensions | | | Max. | Male with | Female with |
|--------|--|-----------------------|-----------------------|----------------------|----------------------|----------------------|------------------|------------------|
| Pos. | Style | Α | В | С | Pkg. | O.D. | #2-56 Threads | #2-56 Threads |
| | | | | | Bulk | .450 11.43 | 5787543-1 | 5787543-7 |
| 40 | 40 B 1.822 1.830 46.25 46.48 | | .456 11.58 | Bulk | .400 10.16 | 5787543-2 | 5787543-8 | |
| | | | | | Bulk | .350 8.89 | 5787543-3 | 5787543-9 |
| 50 | Α | 1.270 | 2.085 | .480 | Individual | .400 10.16 | 5749080-1 | _ |
| 50 | A | 32.26 | 52.96 | 12.19 | Bulk | .400 10.16 | 5749080-2 | _ |
| 68 | В | 1.887 47.93 | 2.645 67.18 | .660 16.76 | Bulk | .550 13.97 | 5750752-3 | _ |
| 68 | Б | 1.822 46.28 | 2.525 64.14 | .564 14.33 | Individual | .550 13.97 | 5786152-3 | _ |
| 100 | Α | 2.082 52.88 | 3.325 84.46 | .615 15.62 | Individual | .500 12.70 | 5749854-1 | _ |
| 100 A | A | 1.695 43.05 | 3.325 84.46 | .595 15.11 | Individual | .500 12.70 | 5749081-1 | _ |

Notes: 1. Each backshell kit includes upper and lower backshells, two male or female jackscrews, one strain relief staple and two or four #2-56 screws. All are packaged unassembled.

2. For Staple Insertion Tooling see page 29.



AMPLIMITE .050 Series Shielded Backshell Kits, With Spring Latches, Series III



Style A Straight Exit with Latches



Style A Angled Exit with Latches



Style B Straight Exit with Latches

Materials:

Backshell—Zinc, plated nickel over copper

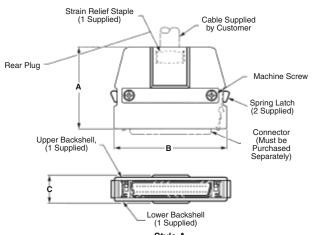
Spring Latch—Stainless steel
2-56 Screws—Stainless steel
Strain Relief Staple—Steel, plated tin over nickel

Technical Documents:

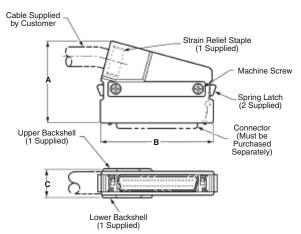
Product Specifications—108-1228 **Application Specifications**— 114-40029

Instruction Sheet—408-9427

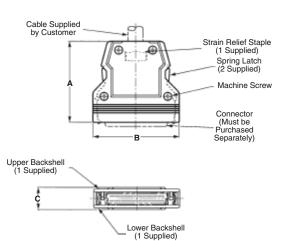
Note: Extra pin contact protection is provided by rails on the receptacle, which facilitate a straight-out unmating motion. A side-to-side rocking motion should not be used to disengage the connector system.



Style A Straight Exit with Latches



Style A Angled Exit with Latches



Style B Straight Exit with Latches



$\begin{tabular}{ll} AMPLIMITE .050 Series Shielded Backshell Kits, With Spring Latches, Series III ({\tt Continued}) \\ \end{tabular}$

| No. of | Style | | Dimensions | | Pkg. | Max. | Straight Exit with | Angled Exit | |
|--------|----------------|----------------------------------|-----------------------|----------------------|-------------|----------------------|----------------------|-------------|-----------|
| Pos. | Style | Α | В | С | rky. | O.D. | Latches | Latches | |
| 20 | Α | 1.290 32.77 | 1.215 30.86 | .400 10.16 | Individual | .270 6.86 | 5749190-1 | 5749199-1 | |
| 26 | Α | 1.290 32.77 | 1.365 34.67 | .400 10.16 | Individual | .270 6.86 | _ | 5749609-1 | |
| 20 | В | 1.290 32.77 | 1.335 33.91 | | Individual | .270 6.86 | 749608-2 | _ | |
| 40 | Α | 1.290 | 1.715 | .400 | Individual | .320 8.13 | _ | 5749201-1 | |
| 40 | | 32.77 | 43.56 | 10.16 | mawaa | .320 8.13 | 5749192-1 | _ | |
| | | | | | | Individual | .400 10.16 | _ | 5749202-2 |
| | Δ | A 1.395 1.965 35.43 49.91 | | | Bulk | .400 10.16 | 5749202-3 | _ | |
| 50 | 35.43 49.91 12 | | 49.91 | | Individual | .355 9.02 | 5749193-1 | _ | |
| | | | maividadi | .400 10.16 | 5749193-2 | _ | | | |
| | В | 1.800 | 1.965 | .492 | Bulk | .480 12.19 | 5749889-3 | _ | |
| | В | 45.72 | 49.91 | 12.50 | Individual | .480 12.18 | 5749889-4 | _ | |
| 68 | А | 1.405 | 2.415 | .520 | Individual | .400 10.16 | _ | 5749204-1 | |
| 00 | A | 35.69 | 61.34 | 13.21 | muividuai | .440 11.18 | 5749195-2 | 5749204-2 | |
| 80 | А | 1.600 | 2.715 | .565 | Individual | .420 10.67 | _ | 5749205-1 | |
| δU | А | 40.64 | 68.96 | 14.35 | 68.96 14.35 | muividuai | .500 12.70 | 749196-2 | _ |
| 100 | А | 1.725 43.82 | 3.215 81.66 | .615 15.62 | Individual | .500 12.70 | 5749197-1 | 5749206-1 | |
| 120 | А | 1.725 43.82 | 3.715 94.36 | .665 16.89 | Individual | .550 13.97 | 5749198-1 | 5749207-1 | |



AMPLIMITE .050 Series Shielded Enclosure Kits, With Male Jackscrews, Series III

68-Position

Material and Finish:

Backshells—Zinc Boot—PVC. black

Jackscrews—Stainless steel and PVC,

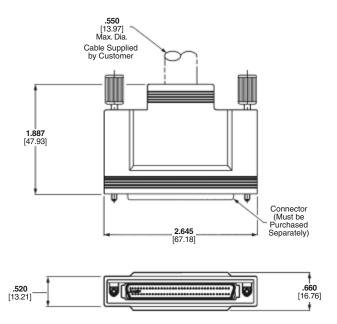
Staple—Carbon steel, plated tin over nickel

Screws—Stainless steel, #2-56 threads

Technical Documents:

Product Specifications—108-1228 Application Specifications— 114-40029





| No. of | Part Number | Part Number | |
|--------|----------------------|----------------------|--|
| Pos. | Male 2-56 Jackscrews | Male 4-40 Jackscrews | |
| 68 | 5750752-1 | 5750752-2 | |

- Notes: 1. Each enclosure kit contains two backshells, one boot, two jackscrews, one staple and two screws. All are packaged unassembled.
 - For staple insertion tooling see page 29.
 Meets SCSI-3 standards.



AMPLIMITE .050 Series Panel Mount Receptacle Assemblies Without Rails, With Latch Blocks, Series III



Materials:

Housing and Termination Covers— Thermoplastic, 94V-0 rated, black

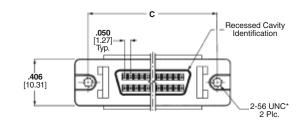
Shell—Steel, plated bright nickel over copper

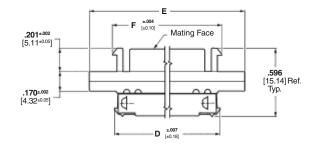
Bracket—Zinc, plated nickel over copper

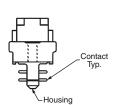
Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, bright tin in termination area, all nickel underplated

Recommended wire size—28 AWG [0.08-0.09mm²] or 30 AWG [0.05mm²], solid or 7 strand, with a .029-.036 [0.74-0.89] insulation diameter or .050 [1.27] centerline, 28 AWG [0.08-0.09mm²] stranded, PVC, flat ribbon cable.

Technical Documents: Product Specifications—108-1228 Application Specifications— 114-40029







Note: Refer to TE Customer drawings and Application Spec for PCB & panel layouts.

| | Part Numbers | | | | | | |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|--|---|---|
| No. of | Dimensions | | | | | Connectors With Unassembled Wire Lacing Termination Covers | |
| Pos. | C | D | E | F | Connectors With Assembled Standard Termination Covers | .032036 [0.81-0.91] Outer Wire Dia. | .029031 [0.74-0.79] Outer Wire Dia. |
| 50 | 1.830 46.48 | 1.629 41.38 | 2.065 52.45 | 1.665 42.29 | 1-749656-1 | 5-786862-5 | 6-786862-5 |
| 50 | 1.830 46.48 | 1.629 41.38 | 2.065 52.45 | 1.665 42.29 | 5-750640-1* | 5-786865-5* | _ |
| 68 | 2.280 57.91 | 2.079 52.81 | 2.515 63.88 | 2.115 53.72 | 1-749656-2 | _ | _ |
| 120 | 3.580 90.93 | 3.379 85.83 | 3.815 96.90 | 3.415 86.74 | 6-749656-0 | _ | _ |

*Part Numbers 5-750640-1 and 5-786865-5 have 4-40 threaded holes. All others have 2-56 threaded holes. Note: For termination, cover closing and wire lacing tooling, see page 14.

For termination tooling other than wire lacing see pages 28 & 29.



AMPLIMITE .050 Series Panel Mount Flat Top Receptacle Assemblies Without Rails and Latch Blocks, Series III



Materials:

Housing and Termination Covers— Thermoplastic, 94V-0 rated, black

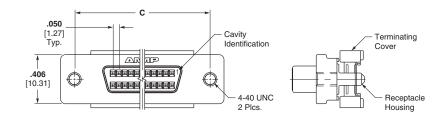
Shell—Steel, plated bright nickel over copper

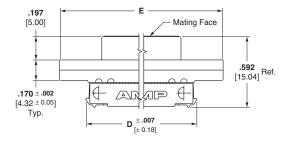
Bracket—Zinc, plated nickel over copper

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end; tin on solder end; all nickel underplated

Recommended wire size—28 AWG [0.08-0.09mm²] or 30 AWG [0.05mm²], solid or 7 strand, with a .029-.036 [0.74-0.89] insulation diameter or .050 [1.27] centerline, 28 AWG [0.08-0.09mm²] stranded, PVC, flat ribbon cable

Technical Documents:
Product Specifications—108-1228
Application Specifications—
114-40029





Note: Refer to TE Customer drawings and Application Spec for PCB & panel layouts.

| Pos. | | Dimensions | Part Numbers | |
|--------|-----------------------|-----------------------|-----------------------|--|
| No. of | С | D | E | Connectors With Assembled Standard Termination Covers |
| 50 | 1.830 46.48 | 1.629 41.38 | 2.065 52.45 | 5-749877-5 |
| 68 | 2.280 57.91 | 2.079 52.81 | 2.515 63.88 | 5-749877-7 |
| 100 | 3.080 78.23 | 2.879 73.13 | 3.315 84.20 | 5-749877-9 |

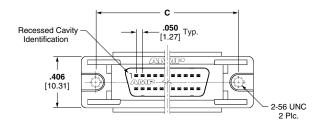
Note: For termination, cover closing and wire lacing tooling, see page 14. For termination tooling other than wire lacing see pages 28 & 29.



AMPLIMITE .050 Series Panel Mount Plug Assemblies With Rails, Latch Blocks, Series III



Plug



Materials:

Housing and Termination Covers—

Thermoplastic, 94V-0 rated, black

Bracket—Zinc, plated nickel over copper

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, bright tin in termination area, all nickel underplated

Recommended wire size-

28 AWG [0.08-0.09mm²] or 30 AWG [0.05mm²], solid or 7 strand, with a .029-.036 [0.74-0.89] insulation diameter or .050 [1.27] centerline, 28 AWG [0.08-0.09mm²] stranded, PVC, flat ribbon cable.

Technical Documents:

Product Specifications—108-1228 **Application Specifications**— 114-40029

Note: Extra pin contact protection is provided by rails, which facilitate a straight-out, unmating motion. A side-to-side rocking motion should not be used to disengage the connector system.

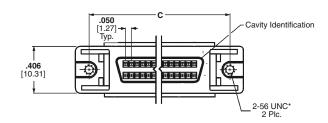
| | ← E → | |
|------------------------------|----------------------|-------------------|
| .217 ± .002 [5.51 ± 0.05] | F ± .004 [± 0.10] | ating Face |
| 1 | | . 598 Ref. |
| .154 ± .002 [3.91 ± 0.05] | D ± .007 | <u> </u> |

| No. of | | Dimer | sions | | Part |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|------------|
| Positions | С | D | E | F | Numbers |
| 50 | 1.830 46.48 | 1.629 41.38 | 2.065 52.45 | 1.665 42.29 | 5-749878-5 |
| 68 | 2.280 57.91 | 2.079 52.81 | 2.515 63.88 | 2.115 53.72 | 5-749878-7 |
| 100 | 3.080 78.23 | 2.879 73.13 | 3.315 84.20 | 2.915 74.04 | 5-749878-9 |



AMPLIMITE .050 Series Panel Mount Plug Assemblies With Rails, Latch Blocks, Series III (Continued)





Materials:

Housing and Termination Covers-

Thermoplastic, 94V-0 rated, black Shell—Steel, plated bright nickel over copper

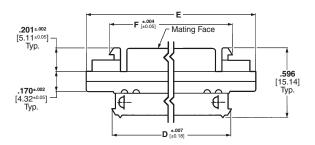
Bracket—Zinc, plated nickel over copper

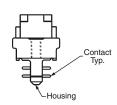
Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, bright tin in termination area, all nickel underplated

Recommended wire size-28 AWG [0.08-0.09mm²] or 30 AWG [0.05mm²], solid or 7 strand, with a .029-.036 [0.74-0.89] insulation diameter or .050 [1.27] centerline, 28 AWG [0.08-0.09mm²] stranded, PVC, flat ribbon cable.

Technical Documents: Product Specifications—108-1228 Application Specifications-114-40029

Note: Extra pin contact protection is provided by rails, which facilitate a straight-out, unmating motion. A side-to-side rocking motion should not be used to disengage the connector





Note: Refer to TE Customer drawings and Application Spec for PCB & panel layouts.

| No. of | | Dimer | Part Numbers | | |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|--|
| Pos. | С | D | E | F | Connectors With Assembled Standard Termination Covers |
| 20 | 1.080 27.43 | .879 22.33 | 1.315 33.40 | .915 23.24 | 5-749611-2 |
| 26 | 1.230 31.24 | 1.029 26.14 | 1.465 37.21 | 1.065 27.05 | 5-749611-1 |
| 50 | 1.830 46.48 | 1.629 41.38 | 2.065 52.45 | 1.665 42.29 | 5-749611-5 |
| 50 | 1.830 46.48 | 1.629 41.38 | 2.065 52.45 | 1.665 42.29 | 5-750450-1* |
| 100 | 3.080 78.23 | 2.879 73.13 | 3.315 84.20 | 2.915 74.04 | 5-749611-9 |

*Part Number 750450-1 has 4-40 threaded holes. All others have 2-56 threaded holes.

Note: For termination, cover closing and wire lacing tooling, see page 14.

For termination tooling other than wire lacing see pages 28 & 29.



AMPLIMITE .050 Series Plug Assemblies Unshielded for .025 [0.64] Centerline Ribbon Cable, Series III

Plug Assembly



Materials:

Housing and Termination Covers— Thermoplastic, 94V-0 rated, black

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, bright tin on termination end, all over nickel underplating

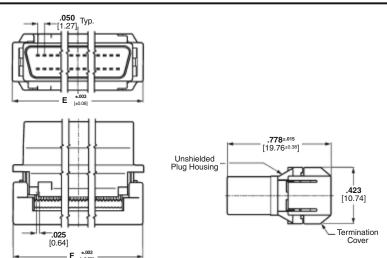
Recommended wire size— .025 [0.64] centerline, 30 AWG [0.05mm²] solid or 7 strand, PVC,

flat ribbon cable.

Note: Cable must be approved by TE Engineering.

Technical Documents for 5786090-7 only:

Product Specifications—108-1359 **Application Specifications**— 114-40049



| No. of | Dimer | Part | |
|--------|-----------------------|-----------------------|------------|
| Pos. | E | F | No. |
| 50 | 1.578 40.07 | 1.578 40.07 | 5390377-51 |
| 68 | 2.029 51.54 | 2.023 51.30 | 5786090-7 |

Note: Termination Tooling: Manual Arbor Press Part No. 91085-2 or Pneumatic Press Part No. 91112-3, Universal Base Tool Part No. 768338-4, and Connector Specific Kit Part No. 679235-2. Refer to page 29.

¹ Accepts 32 AWG Flat Ribbon Cable. Selection of compatible ribbon cable is the responsibility of the user.

Note: Refer to TE Customer drawings and Application Spec for PCB & panel layouts.

Backshell Kit for 5786090-7 .025 [0.64] Unshielded Plug



Materials:

Backshell—Thermoplastic, 94V-0 rated, black

Spring Latches—Stainless steel

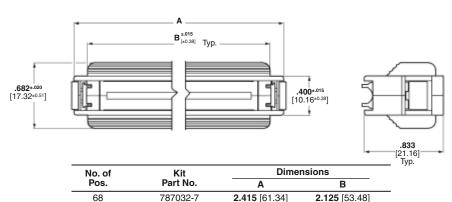
Strain Relief for 5786090-7 .025 [0.64] & Unshielded Plug

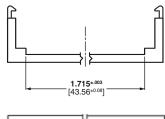
68-Position
Part No. 787043-7

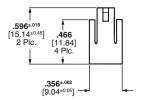
Materials:

Thermoplastic, 94V-0 rated, black

Note: Pull tab Part No. 88450-8 can be used with this strain relief. Must be ordered separately.









Note: All part numbers are RoHS compliant.



AMPLIMITE .050 Series Hardware and Dust Covers, Series III

Screwlock Kits

Materials:

Stainless steel (female) Steel, zinc plated black (male)

Related Product Data:

Used with the following connectors:

Right-Angle Receptacle Header—page 7

Vertical Receptacle Header—pages 8-11

Panel Mount Plug and Receptacle Headers—pages 21 & 22

Technical Documents:

Product Specifications—108-1228 Application Specifications— 114-40029



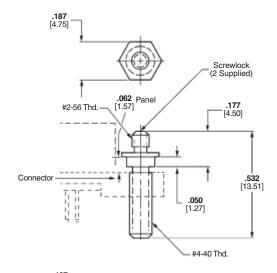
Male
Part No. 749086-1
(Includes two screwlocks)

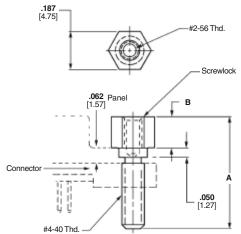


Female (Includes two screwlocks)

| Dim. A | Dim. B | Individual Kits Part No. | Bulk Part No. |
|----------------------|---------------------|-----------------------------|------------------|
| .562 14.27 | .157 3.99 | 749087-1 | _ |
| .380 9.65 | .157 3.99 | 749087-21 | 749087-3 |
| .562 14.27 | .165 4.19 | 749087-4 | 749087-8 |

¹ Recommended for right-angle board mount connectors.





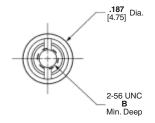


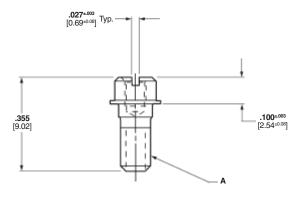
Female (Includes two screwlocks)

| Thread Size | | Kits | Bulk |
|-------------|---------------------|----------|----------|
| Α | В | Part No. | Part No. |
| 4-40 | .110 2.79 | 750644-1 | _ |
| 2-56 | .090 2.29 | 786585-2 | 786585-3 |

Recommended for pc board mount of panel mount connectors with latches or latches and rails. Permits cable connectors to be spring latch-type or jackscrew-type

Note: All part numbers are RoHS compliant.







AMPLIMITE .050 Series Performance Specifications and Technical Documents

Performance Specifications for Right-Angle, Vertical and .050 Centerline Cable Products Mating Cycles (Durability): 500 max.

Current Rating (30°C T-Rise): 1A max., 50% energized

Termination Resistance (Mated): 25 milliohms max.

Insulation Resistance: 1000 megohms min.

Dielectric Withstanding Voltage: 500 VAC

Header Processing Temperature: +220°C max. for 3 minutes

Temperature Range: -55°C to 105°C

Performance Specifications for .025 [1.27] Centerline Ribbon Cable Product. Same as above except:

Current Rating (30°C T-Rise): 1A max. center four contacts energized (two from top row, two

from bottom row)

Termination Resistance (Mated): 50 milliohms max.

Product Specifications:

| 108-1228 | AMPLIMITE .050 Series Printed Circuit Board Mounted and Cable Applied |
|------------|---|
| 108-1359 | AMPLIMITE .050 Series .025 [0.64] Centerline Connectors |
| 108-1228 | AMPLIMITE .050 Series Stacked Connectors |
| 108-1228-2 | AMPLIMITE .050 Series ACTION PIN Connectors |
| 108-1228-3 | AMPLIMITE .050 Series SBus Connectors |

Application Specifications:

| 114-40029 AMPLIMITE .050 Series Printed Circuit Board Mounted and Cable Applied | d |
|---|---|
|---|---|

Connectors

114-40049 AMPLIMITE .050 Series .025 [0.64] Centerline Connectors

Instruction Sheets:

| 408-6923 | AMP Manual Arbor Frame Assembly |
|----------|--|
| 408-6927 | TE Design Recommendations for Printed Circuit Board |
| | Support Fixture |
| 408-9200 | AMP Single Wire Insertion Tool |
| 408-9822 | Wire Termination Tooling Kit for CHAMPOMATOR 2.5 Machine |
| 408-9820 | AMP Cover Closing and Staple Inserter Kits |
| 408-9663 | AMP Mass Insertion Tool |
| 408-9750 | AMP Cover Lacing Fixture |
| 408-9757 | AMP Tooling Assembly for ACTION PIN Receptacles |
| 408-9817 | AMP Manual Miniature Applicator Frame Assembly |
| 408-9427 | Round-to-Flat Cable Termination |
| 408-9875 | AMP Universal Base Tool for .025 [0.64] & Connectors |
| 408-9892 | AMP Tool Kit for .025 [0.64] © Connectors |
| | |

Customer Manuals:

| ine |
|-----|
| |

409-5791 Control Unit for CHAMPOMATOR 2.5 Machine



AMPLIMITE .050 Series Application Tooling, Series III

Discrete Wire Application Tooling

To meet medium to high volume production of dis-crete wire terminations, TE offers the following tooling:

The CHAMPOMATOR Model 2.5 Bench
Terminating Machine—
Part No. 354786-1, used in conjunction with Control Module—Part No. 852423-□, and Tie Bar—Part No. 762637-□ (Table No. 1).



Control Module
Part No. 852423-1 120 VAC
852423-2 100 VAC
852423-3 230 VAC

CHAMPOMATOR 2.5 Machine Tool Kit Part No. 354786-1

Note: The CHAMPOMATOR 2.5 Machine includes plug and receptacle nests, as well as wire setup gauge.

Table Number 1

| Connector Size | Tie Bar Part No. |
|-------------------|---------------------|
| 20 Pos. | 762637-1 |
| 26 Pos. | 1-762637-1 |
| 28 Pos. | 1-762637-2 |
| 40 Pos. | 762637-3 |
| 50 Pos. | 762637-4 |
| 60 Pos. | 762637-5 |
| 68 Pos. | 762637-6 |
| 80 Pos. | 762637-7 |
| 100 Pos. | 762637-9 |
| 120 Pos. | 1-762637-0 |

Discrete Wire Application Tooling

For low to medium volume production use the AMP Arbor Frame Assembly—
Part No. 58024-1 equipped with Applicator—Part No. 91291-1 for .032-.035 [0.81-0.89] Conductor Insulation O.D. and Applicator—Part No. 91291-2 for .029-.032 [0.74-0.81] Conductor Insulation O.D.

Note: AMP Arbor Frame Assembly and Applicator Kit must be ordered separately.



Arbor Frame
Part No. 58024-1
Equipped with
Applicator Part No.
91291-□

Note: All part numbers are RoHS compliant.

Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015



AMPLIMITE .050 Series Application Tooling, Series III (Continued)

Cover Closing/ Termination Tooling

Manual Miniature Applicator Frame Assembly— Part No. 91295-1

This Frame requires Cover Closing Kit—Part No. 543508-1

Cable Staple Tooling

To provide cable strain relief use Manual Miniature Applicator Frame Assembly—Part No. 91295-1. This Frame requires Staple Insertion Kit—Part No. 543515-1 to install staples into lower backshells of connector kits and assemblies.



Miniature Applicator Frame Assembly Part No. 91295-1 Equipped with Cover Closing Kit Part No. 543508-1

AMPLIMITE .050 Series Connector Application Tooling for Use with Wire Lacing Terminating Covers

Manual Arbor Frame Assembly—Part No. 58024-1

Equipped with Cover Lacing Assembly—Part No. 91293-1 (Includes Seating Bars for 50 and 100 Positions). See Table 3 for Seating Bar Part Numbers.

Extra Lacing Stations available for use with Lacing Assembly—Part No. 91293-1 Order Lower Tooling Assembly—Part No. 543481-1



Lower Tooling Assembly Part No. 543481-1



Arbor Frame, Part No. 58024-1 Equipped with Cover Lacing Assembly, Part No. 91293-1

Note: AMP Manual Miniature Applicator Frame Assembly, Cover Closing Kit, and Staple Insertion Kit each must be ordered separately by part number.

Note: All part numbers are RoHS compliant.



Seatings Bars

Table Number 3

| No. of Pos. | Seating Bar Part No. |
|----------------|-------------------------|
| 26 | 543494-2 |
| 50 | 543494-1 |
| 68 | 543502-2 |
| 100 | 543502-1 |

Notes: All Tooling must be ordered separately by part number. Two seating bars required per tool assembly.

Termination Tooling for .025 [0.64] Centerline Ribbon Cable

Used with Manual Arbor Tool **Part No. 91085-2**, or Pneumatic Arbor Tool **Part No. 91112-3** and Universal Base Tool **Part No. 768338-4**.

| No. of Pos. | Plug/Receptacle Upper Tooling Kit | |
|----------------|--------------------------------------|--|
| 50 | 679235-2 | |
| 68 | 073203 2 | |



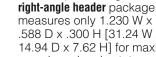
Shielded AMPLIMITE .050 Series Slimline Connectors

Product Facts

- Compact design, profile for the right-angle header 1.230 x .588 [31.24 x 14.94], vertical header 1.230 x .433 [31.24 x 11.00], right-angle stacked headers 1.230 x .803 [31.24 x 20.40]
- Housings and covers made of UL 94V-0 rated thermoplastic
- Headers are compatible with surface mount reflow solder processes
- Header footprint for rightangle and stacked configurations is .100 x .050 [2.54 x 1.27] staggered centerlines
- Right-angle and stacked headers feature integral boardlocks for positive board retention and grounding
- Stacked headers reduce overall total header volume by 48% and PC board area by 38%
- Stacked headers offer optional contact shield for additional EMI/RFI protection
- Plugs preloaded with insulation displacement contacts (IDC) provide fast, reliable and economical terminations
- Aesthetically designed backshell kits feature easy-to-use finger grip jackscrews to secure mated connectors
- Listed and complies with UL 1863, Communication Circuit Accessories, File No. E81956
- Certified by Canadian Standards **Association** File No. 1088108 (LR 7189A-207)
- Produced under a Quality Management System certified to ISO 9001

A copy of the certificate is available upon request





measures only 1.230 W x .588 D x .300 H [31.24 W x 14.94 D x 7.62 H] for maximum board real estate conservation. Right-angle PCB

headers feature integral

The compact design of the

Shielded AMPLIMITE .050

answer today's industry

requirement for higher

consists of 26 position,

shielded right-angle, 26

mating 26 position plug

made of UL 94V-0 rated

mount reflow solder

Series, Slimline Connectors

density in a smaller overall

package. The present line

position right-angle stacked

PCB receptacle header, and

connectors. All header, plug

and backshell housings are

thermoplastic. PCB headers

are compatible with surface

processes. Right-angle and

stacked PCB headers fea-

ture con-tact footprints on

.100 x .050 [2.54 x 1.27]

staggered centerlines.

boardlocks for positive board retention and grounding.

Right-angle stacked headers provide 52 contacts in a package only .635 [16.13] high, allowing parallel (board-over-board) board spacing of .800 [20.32]. Centerlines between the top connector and the bottom connector measure .335 [8.51] when compared to .400 [10.16] on the standard .050 Series stacked headers. This results in an over-all reduction of total header volume, in comparison to the standard AMPLIMITE .050 Series header, of 48%, and a comparative reduction in PC board area of 38%.

Stacked header board retention and stabilization is provided by two boardlocks and four grounding posts. In addition, an optional rear contact shield is available for additional EMI/RFI protection.

The mating plug connector

consists of a thermoplastic housing, preloaded with insulation displacement contacts (IDC) for fast, reliable terminations that offer greater applied cost savings. TE offers a choice of termination equipment to meet your production requirements.

The backshell hardware kit includes a two-piece, aes-

thetically designed, thermoplastic cover over an inner and outer shield and two, high strength #2-56 male jackscrews with insulated heads (easy finger grip caps) to secure mated connectors.

The AMPLIMITE .050 Series, Slimline family of connectors offers keyed coupling. This feature eliminates the problem of mismatch mating of plug and receptacle, particularly in stacked applications.





Right-Angle Header, Receptacle



Part No. 750823-1

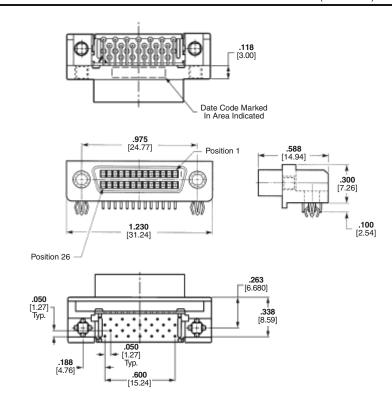
Material and Finish

Housing—UL 94V-0 rated thermoplastic, black

Bracket—Zinc, plated tin or tin over copper

Metal-Shell—Carbon steel, plated tin over copper

Boardlocks—Copper alloy, tin plated **Contacts**—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, tin plated on solder end, all over nickel



Notes:

- 1. Rear panel mounting only.
- 2. Female screwlocks to be used with connectors mounted to panels having a thickness of .047 [1.19].
- 3. See Application Specification 114-40036 for the most up-to-date detailed panel cutout and recommended PC Board hole pattern.
- Female screwlocks are not included with receptacles and must be ordered separately. See page 33 for screwlock kit information.



Shielded Right-Angle Stacked Header, Receptacle



With Shielding



Without Shielding

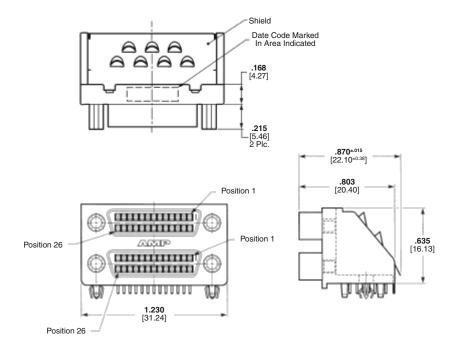
Material and Finish:

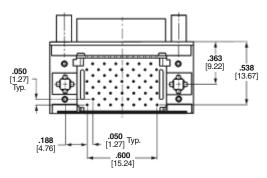
Housing—UL 94V-0 rated thermoplastic, black

Bracket—Zinc, plated tin over copper **Metal-Shell**—Carbon steel, plated tin over copper

Boardlocks—Copper alloy, tin plated **Contact Shield**—Phosphor bronze, plated tin

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. on mating end, tin plated on solder end, all over nickel





Shielded Header with Rear Contact Shield

| | | Part N | lumbers | |
|---------------------|--------------------|--|-----------|-------------------------|
| No. of Positions | Std. Rc Rear Co | Std. Rcpt. without Rear Contact Shield Keyed¹ Unkeyed² | | t. with tact Shield³ |
| | Keyed ¹ | | | Unkeyed ² |
| 26/26 | _ | 5786200-1 | 5750821-1 | 5750820-1 |

¹Lower header unkeyed with 4-40 threaded holes, upper header keyed in keying position 1. See page 33 for keying code.

Note: See Application Specification 114-40036 for the most up-to-date detailed panel cutout and recommended PC Board hole pattern.

Note: All part numbers are RoHS compliant.

Catalog 82068

Revised 4-12

²Both headers unkeyed with 4-40 threaded holes.

³Receptacle includes a metal contact shield for added RFI protection to the rear of the receptacle assembly.



Cable Connector, Plug



Part No. 750833-1 Material and Finish:

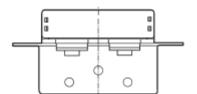
Housing and Termination Covers— UL 94V-0 rated thermoplastic, black

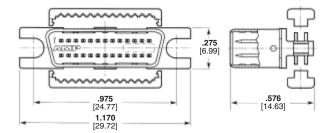
Shell—Steel, plated bright tin over conner

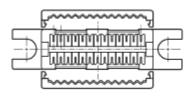
Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, bright tin on termination end, all underplated nickel

Bracket—Zinc, plated nickel over copper

Recommended Wire Size—28 AWG [0.08 mm²] with max. O.D. .032 [0.813]. PVC or polyolefin insulation.







Note: Cable Connectors must be used with Backshell Kits. See page 34.

Keying Code, Receptacle





Keying Code, Plug





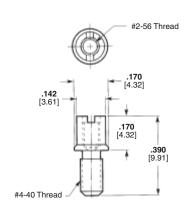
Position 1 (Up)

Accessories

Female Screwlock Kit

Material—Stainless Steel

Note: Female screwlocks to be used with connectors mounted to panels having a thickness of .047 [1.19]



| Part No. | Packaging |
|----------|---|
| 750831-1 | Individually Packed Kit (2 Screwlocks per kit) |

^{*}Minimum order is 510 kits.

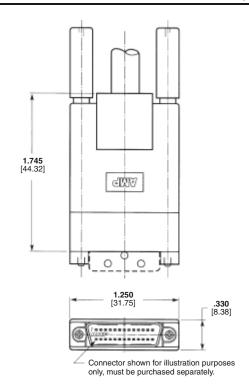


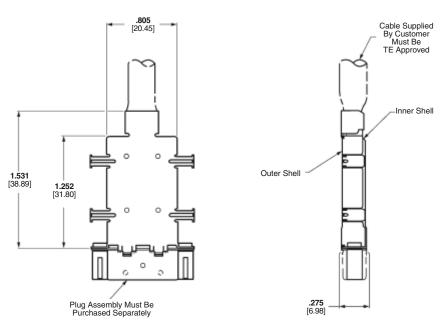
Backshell Kits



Material and Finish:

Backshells—Copper-nickel alloy
Jackscrews—Steel, plated tin over
copper, handles covered with ABS, gray
Keyed and Unkeyed Inserts—Zinc,
plated tin over copper
Outside Covers—ABS, gray





Backshell Kits

| Unkeyed Kit Part No. | Cable Dia. | Packaging* |
|-------------------------|-----------------------------|-------------------------|
| 750850-1 | .250280 | Individually Packed Kit |
| 750850-2 | 6.35-7.11 | Bulk Packed Kit |
| 750850-3 | .280310 7.11-7.87 | Individually Packed Kit |

^{*}Bulk packaging—100 kits per box.

Note: All part numbers are RoHS compliant.

Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015



Shielded AMPLIMITE .050 Series Slimline Connectors, Application Tooling

Discrete Wire Application Tooling

To meet medium to high volume production of discrete wire terminations, TE offers the following tooling:

The CHAMPOMATOR Model 2.5 Bench Terminating Machine—
Part No. 354786-1, used in conjunction with Control Module—Part No. 852423-□, and Tie Bar—Part No. 1-762637-3.

Note: CHAMPOMATOR 2.5 Machine and Control Module must be ordered separately by part number.



Control Module
Part No. 852423-1 120 VAC
852423-2 100 VAC
852423-3 230 VAC

CHAMPOMATOR 2.5 Machine Part No. 354786-1

> 26 Position Tie Bar 1-762637-3

Wire Setup Gauge

| Wire Insu | lation Dia. | Part No. |
|-----------|-------------|----------|
| in. | mm | rait No. |
| .026028 | 0.66-0.71 | 763382-3 |
| .029031 | 0.74-0.79 | 763382-4 |
| .032035 | 0.81-0.89 | 763382-5 |

Discrete Wire Application Tooling

For low to medium volume production use the TE Arbor Tool—Part No. 58024-1 equipped with Applicator—Part No. 91291-1 and Special Locator—Part No. 543506-1.

Cable-to-Shell Staple Tooling (For discrete wire jacketed cable only)

To meet medium to high volume production use TE Pneumatic Crimper—Part No. 312522-3 equipped with Die Holder Assembly—Part No. 58449-1 and Die—Part No. 90437-1 to crimp outer backshells of connector kits and assemblies.

For low volume use Manual Arbor Tool—Part No. 91085-2, equipped with Backshell Crimper Assembly Tool—Part No. 856684-1.

For tooling information call Tooling Assistance Center 1-800-722-1111.



Arbor Tool Part No. 58024-1 Equipped with Applicator Part No. 91291-1



Pneumatic Bench Tool No. 312522-3 (Requires Die Set Holder No. 58449-1)



Miniature Applicator Frame Assembly Part No. 91295-1 Equipped with Cover Closing Kit Part No. 543508-1



Staple Insertion Kit Part No. 543515-1 (For use with Miniature Applicator Frame Assembly Part No. 91295-1)

Backshell Tooling and Cover Tooling

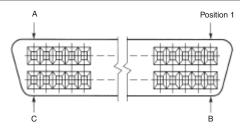
To assemble backshell into plastic housing use Manual Miniature Applicator Frame Assembly—Part No. 91295-1 equipped with Part No. 543521-1. To assemble upper cover on lower cover use Part No. 91295-1 equipped with Part No. 543522-1.

Note: All part numbers are RoHS compliant.



Shielded AMPLIMITE .050 Series Contact Arrangements, Performance Specifications, Technical Documents—Slimline Connectors

Contact Arrangements



Note: Mating face of receptacle is shown, plug is mirror image.

| No. of | Po | osition N | lo. |
|--------|----|-----------|-----|
| Pos. | Α | В | С |
| 26 | 13 | 14 | 26 |

Performance Specifications

Mating Cycles (Durability): 500 max.

Current Rating (30°C T-Rise): 1A max., 50% loading **Termination Resistance (Mated):** 25 milliohms max. **Insulation Resistance:** 1000 megohms min.

Dielectric Withstanding Voltage: 500 VAC
Header Processing Temperature: +220°C max. for 3 minutes

Temperature Range: -55°C to +105°C

Technical Documents

Product Specifications describe technical performance characteristics and verification tests. They are intended for the Design, Component and Quality Engineer.

108-1366 Shielded AMPLIMITE .050 Series,

Slimline Connectors

Application Specifications describe requirements for using the product in its intended application and/or termination information. They are intended for the Packaging and Design Engineer and the Setup person.

114-40036 Shielded AMPLIMITE .050 Series, Slimline Connectors

Instruction Sheets provide instructions for assembling or applying product. They are intended for Manufacturing Assembler or Operator.

| 408-9663 | Mass Insertion Tooling-Part No. 91291-□ |
|----------|--|
| 408-6923 | AMP Manual Arbor Frame-Part No. 58024-1 |
| 408-9701 | Wire Termination Tooling Kit for CHAMPOMATOR 2.5 |
| | Machine-Part No. 1-762661-4 |
| 408-7777 | AMP Manual Arbor Frame w/Slide-Part No. 91085-2 |
| 408-9746 | Crimper Assembly-Part No. 856684-1 |
| 408-9200 | Single Wire Insertion Tool-Part No. 58430-1 |
| 408-9721 | Die Holder Assembly for Pneumatic Crimper- |
| | Part No. 58449-□ |
| 408-9788 | Die Assembly-Part No. 90437-1 |
| 408-9898 | Backshell and Cover Tooling Assemblies- |
| | Part No. 543521-1 and 543522-1 |

Customer Manuals provide information on TE termination equipment. They are intended for Manufacturing Assemblers or Operators.

409-5786 CHAMPOMATOR 2.5 Machine 409-5791 CHAMPOMATOR 2.5 Control Module—

Part No. 852423-□
409-5822 Pneumatic Crimper-Part No. 312522-3
409-5843 Pneumatic Power Unit



AMPLIMITE .050 Series Panel Mount Receptacle Assemblies for .025 [0.64] Centerline Ribbon Cable, Series III



Materials:

Housing and Termination Covers—

Thermoplastic, 94V-0 rated, black **Shell**—Steel, plated bright tin over copper

Bracket—Zinc, plated nickel over copper

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end; tin on solder end; all nickel underplated

Recommended wire size-

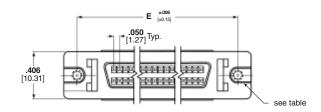
.025 [0.64] centerline, 30 AWG [0.05mm²] and 32 AWG [0.03mm²] solid or 7 strand, PVC, flat ribbon cable. Selection of compatible ribbon cable is the responsibility of the user.

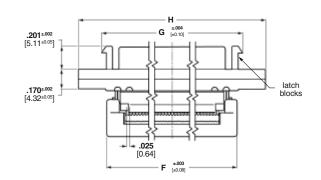
Technical Documents: See customer drawings for Product Performance criteria.

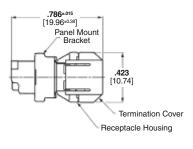
- Recognized under the Component Program of Underwriters Laboratories, Inc.,
- Certified by Canadian Standards Association, File No. LR 7189

File No. E28476









| No. of | Dimensions | | | | Gold | Metina Herdwere | Dovt No. |
|--------|--------------------|-----------------------|-----------------------|-----------------------|---------|--|-------------|
| Pos. | E | F | G | Н | Plating | Mating Hardware | Part No. |
| | 1.831 46.50 | 1.602 40.70 | N/A | 2.066 52.47 | 15µ | w/ 4-40 threaded holes | 1-5390378-5 |
| | 1.831 46.50 | 1.602 40.70 | N/A | 2.066 52.47 | 30μ | w/ 4-40 threaded holes | 5390378-5 |
| 50 | 1.831 46.50 | 1.602 40.70 | 1.664 42.27 | 2.066 52.47 | flash | w/ latch blocks and 4-40 threaded holes | 2-5390399-5 |
| 00 | 1.831 46.50 | 1.602 40.70 | 1.664 42.27 | 2.066 52.47 | 15µ | w/ latch blocks and 4-40 threaded holes | 1-5390399-5 |
| | 1.831 46.50 | 1.602 40.70 | 1.664 42.27 | 2.066 52.47 | 30μ | w/ latch blocks and 4-40 threaded holes | 5390399-5 |
| | 1.831 46.50 | 1.602 40.70 | 1.664 42.27 | 2.066 52.47 | 30μ | w/ latch blocks and 2-56 threaded holes | 5390379-5 |
| | 2.281 57.93 | 2.018 51.50 | N/A | 2.516 63.90 | 15µ | w/ 4-40 threaded holes | 1-5390378-7 |
| | 2.281 57.93 | 2.018 51.50 | N/A | 2.516 63.90 | 30μ | w/ 4-40 threaded holes | 5390378-7 |
| 68 | 2.281 57.93 | 2.018 51.50 | 2.114 53.70 | 2.516 63.90 | flash | w/ latch blocks and 4-40 threaded holes | 2-5390399-7 |
| 00 | 2.281 57.93 | 2.018 51.50 | 2.114 53.70 | 2.516 63.90 | 15µ | w/ latch blocks and 4-40 threaded holes | 1-5390399-7 |
| | 2.281 57.93 | 2.018 51.50 | 2.114 53.70 | 2.516 63.90 | 30μ | w/ latch blocks and 4-40 threaded holes | 5390399-7 |

Note: Termination Tooling: Manual Arbor Press Part No. 91085-2 or Pneumatic Press Part No. 91112-3, Universal Base Tool Part No. 768338-4, and Connector Specific Kit Part No. 1490479-1.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity: 5786554-5