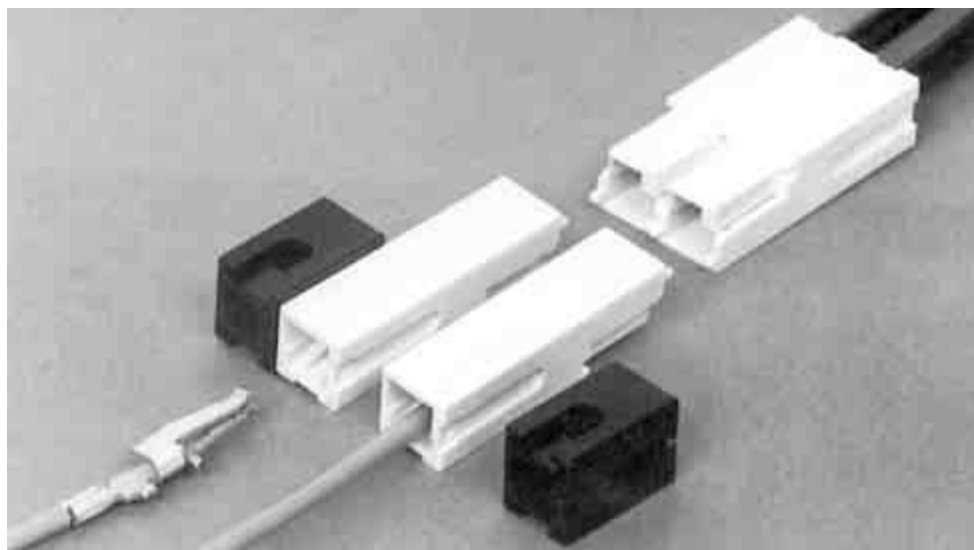


AMPINNERGY Wire-To-Wire Connectors

Product Facts

- Rated to 600 VAC (RMS)
- Flame retardant housings 94V-0
- Housings, adapters, and power terminals keyed for proper assembly
- Stackable housings provide easy wire routing and neat wire dressing
- Built-in interlocking features better resist shock and vibration
- Usable as in-line connector, or as panel and surface-mount connector
- Available in six different colors for circuit coding and identification
- Choice of two power terminals accommodates 10-12 AWG and 14-16-18 AWG conductors
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR7189
- VDE Registered #5133



AMPINNERGY wire-to-wire (WTW) Connectors provide a reliable and efficient means of interconnecting conductors employed to carry up to 600 VAC in power circuits or networks.

The WTW connectors consist of mating hermaphroditic, flame retardant polycarbonate housings into which customer terminated power contacts are inserted. Stackable in four directions through the use of molded interlocking keyways, the connectors make wire routing and dressing orderly and easy to accomplish. More importantly, the built-in interlocking features on the connectors and the accessory mounting adapters provide better resistance to the effects of shock and vibration, keeping the interconnect more stable and secure.

The design features of the WTW connector make it easily applicable to free-hanging, surface mounted or panel mounted applications. By simply sliding the accessory mounting adapters into the molded keyways of the connector housing, a free-hanging connector can be trans-

formed into a surface-mount connector or a panel-mount connector. Customer supplied 8-32 screws and nuts may be used to secure the connectors configured with the mounting adapters to printed circuit boards or distribution panels. The same hardware may be used to secure the connectors to pre-cut openings in the panels.

Furthermore, WTW connector housings, mounting adapters and power terminals are all provided with alignment or keying features that make it difficult to improperly assemble and apply the connector. Alignment slots and tabs on the plastic connector housings provide for easy mating of the housings, even in the dark! Mounting adapters have a keyway on one side and a key on the other side providing for easy assembly to the connector by touch alone if necessary. And the power terminals have a side tab that helps prevent the incorrect insertion of the terminated conductor into the housing. Once inserted, the contacts

firmly latch within the connector housing.

The WTW connector system is available in six different and distinctive colors which makes circuit differentiation and identification possible. The crimped power terminals will accommodate either 10-12 AWG or 14-16-18 AWG stranded conductors. Depending upon the conductor size and the number of conductors in the connector configuration, the current rating ranges from 10 Amps to 55 Amps.

Technical Documents

Product Specification

108-1373 AMPINNERGY WTW Connectors

Application Specification

114-6051

Instruction Sheets

408-3277 AMPINNERGY Wire-To-Wire Stackable Connectors

408-3198 Inspection of AMPINNERGY System Power Contacts

For more information,
request Catalog 1308885.

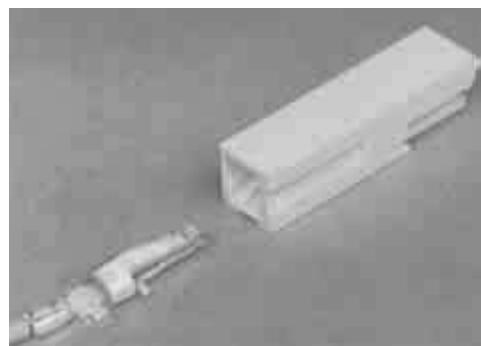
AMPINNERGY Wire-To-Wire Connectors (Continued)

Housings

Material and Finish

Housing — Polycarbonate, 94V-0

For surface mounting and panel mounting information, see Instruction Sheet 408-3277, AMPINNERGY Wire-To-Wire Stackable Connectors.

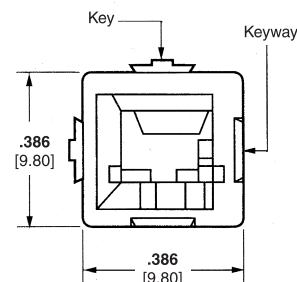
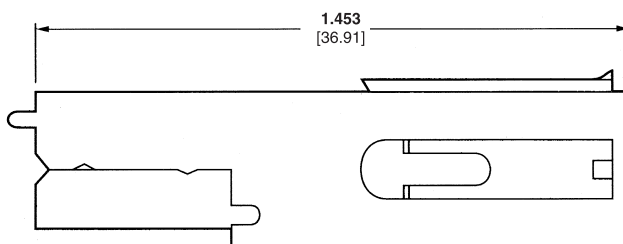


Customer terminated power contacts are inserted into housings



Free-Hanging Interconnections

Color	Housing Part Numbers
White	556137-1
Black	556137-2
Green	556137-3
Red	556137-4
Blue	556137-6
Gray	556137-8



Wire-To-Wire Connector Housing

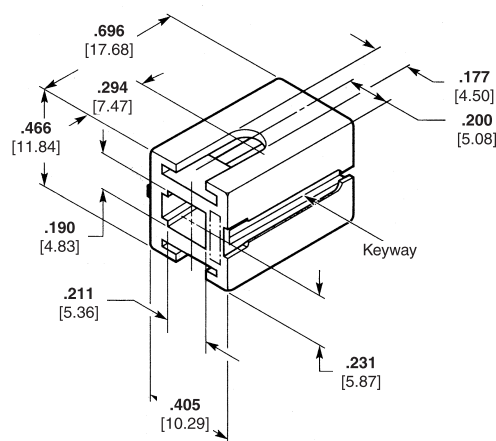
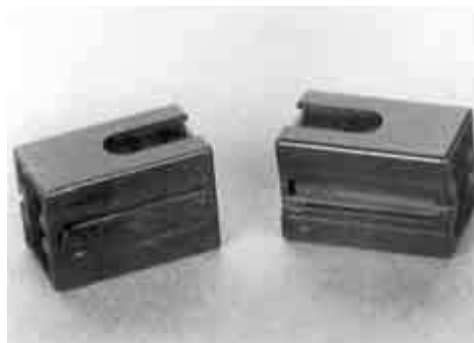
Mounting Adapters

Part Number 557313-1

Material and Finish

Housing — Polycarbonate, Black

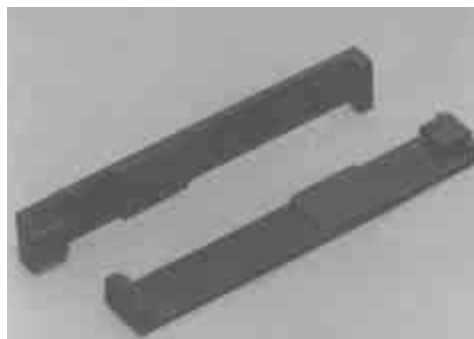
Two mounting adapters can be used with one or more connector housings to provide thru-panel or horizontal surface mounting capability of the completed assembly.



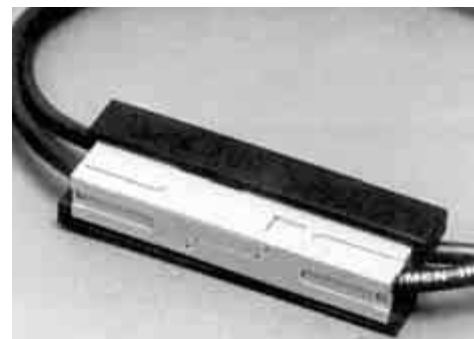
External Locking Latch Clip

Part Number 557640-1

AMPINNERGY wire-to-wire connector housings have an integral locking feature designed to keep housings mated in most applications. However, the external locking latch clip may be used as needed in applications where severe vibration or tension may pull mated housings apart.



AMPINNERGY Wire-To-Wire Clips
Part Number 557640-1



AMPINNERGY Wire-To-Wire Clips (Installed)
Part Number 557640-1

Note: All part numbers are RoHS compliant.

AMPINNERGY Wire-To-Wire Connectors (Continued)

Power Terminals

Material and Finish

Contacts — Copper alloy plated with .000100 [0.00254] minimum tin

The wire-to-wire connector power contacts are available in either strip form or in loose piece form.

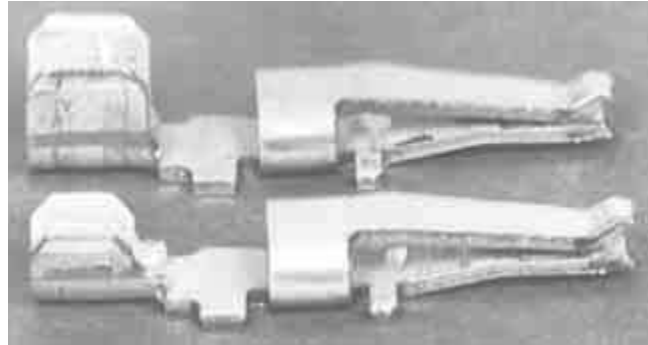
Contacts in strip form are terminated on continuous feed type terminators and the loose piece contacts are terminated with the hand tool or pneumatic tool.

For wire preparation and crimped contact inspection information, refer to Instruction Sheet 408-3198, Inspection of AMPINNERGY System Power Contacts.

Loose Piece

Part Number 556136-2

Part Number 556135-2

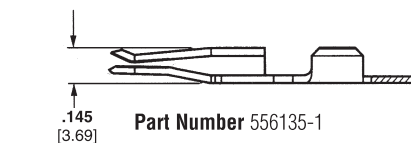


Contact Part Numbers	Wire Size (AWG)	Hand Tool Part Number	Pneumatic Tool Part Numbers	Die Set Part Numbers
556135-2 (loose piece)	18-16	69710-1	189721-2*	58493-1
	14			58492-1
556136-2 (loose piece)	12			58490-1
	10			58491-1

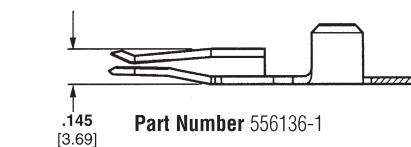
*Requires "C" head adapter part number 318161-1 and adapter holder part number 189928-1. See Catalog 124208 for more information.

Note: The same hand tool or pneumatic tool and die sets may be used to apply the wire-to-board connector terminals.

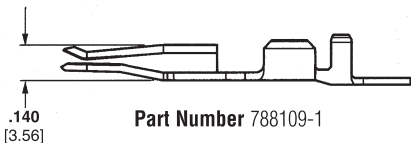
Strip Form



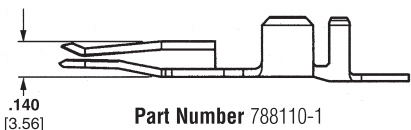
Part Number 556135-1



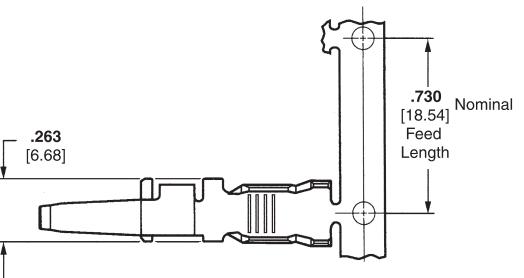
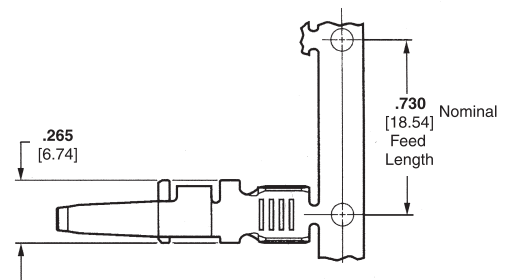
Part Number 556136-1



Part Number 788109-1



Part Number 788110-1



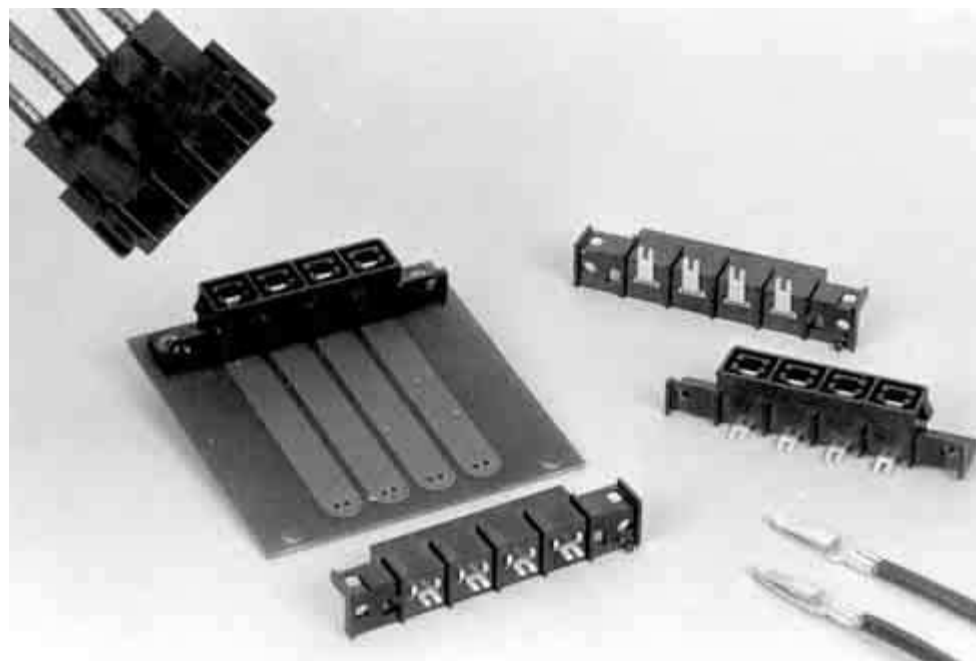
Contact Part Numbers	Wire Size (AWG)	AMP-O-LECTRIC Model G Terminating Machine	Applicator Part Numbers
556135-1 (strip)	18-16-14	354500-1	567403-3
556136-1 (strip)	10-12	354500-1	567256-6
788109-1 (strip)	18-14	354500-1	680447-3
788110-1 (strip)	10-12	354500-1	680449-3

Note: All part numbers are RoHS compliant.

AMPINNERGY Wire-To-Board Connectors

Product Facts

- **Ratings: 600 VAC (RMS), current ratings range from 12-35 Amps**
- **Receptacles polarized to plug**
- **Receptacles and plugs available in contact configurations of 2 through 8 positions**
- **Vertical receptacle polarized to PCB**
- **Receptacle contacts have dual solder posts for efficient heat dissipation, low millivolt drop and mechanical strength**
- **Receptacles may be mounted on PCBs .062 to .125 inch thick**
- **Plugs have positive latching to receptacles**
- **Removable crimp contacts latch firmly in plug**
- **Plugs are one-piece design**
- **Two ranges of crimped contacts accommodate either 10-12 AWG or 14-16-18 AWG conductors**
- **Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476**
- **Certified by Canadian Standards Association, File No. LR7189-239**



AMPINNERGY Wire-To-Board (WTB) Connectors

Connectors provide a convenient and efficient means of delivering up to 600 VAC to component printed circuit boards and other power distribution devices in computers and peripherals, telephone systems and appliances. The WTB connectors also have automotive and industrial applications.

Receptacles

The AMPINNERGY WTB connector receptacles can be installed on pc boards varying in thickness from .062 inch to .125 inch. A polarizing pin is provided on the vertical receptacle assembly to aid in proper positioning on the pc board. Both the vertical and right-angle assemblies are polarized for accurate mating to the plug assemblies. The receptacle

assemblies are available in contact configurations ranging from two to eight positions.

Plugs

The single piece plug housings are available in contact configurations to mate with the receptacles. The plug is equipped with positive latches to allow full and more secure mating to the respective receptacle.

A make-first/break-last feature is designed into position 1 of the plug assemblies to provide grounding protection.

Contacts

The crimp contacts will accommodate either 10-12 AWG or 14-16-18 AWG conductors. The contacts latch firmly within the plug housing.

Technical Documents

Product Specification

108-1349 AMPINNERGY WTB Connectors

Application Specification

114-6044 AMPINNERGY WTB Connectors

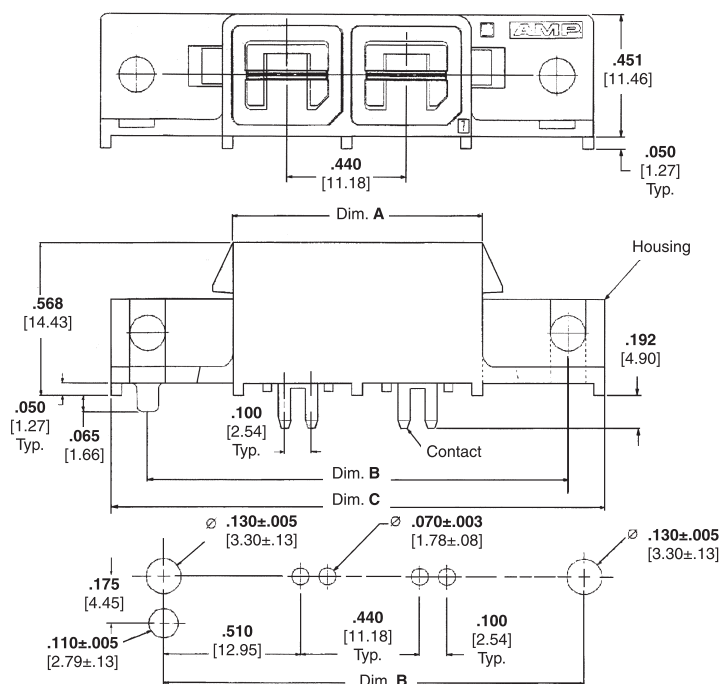
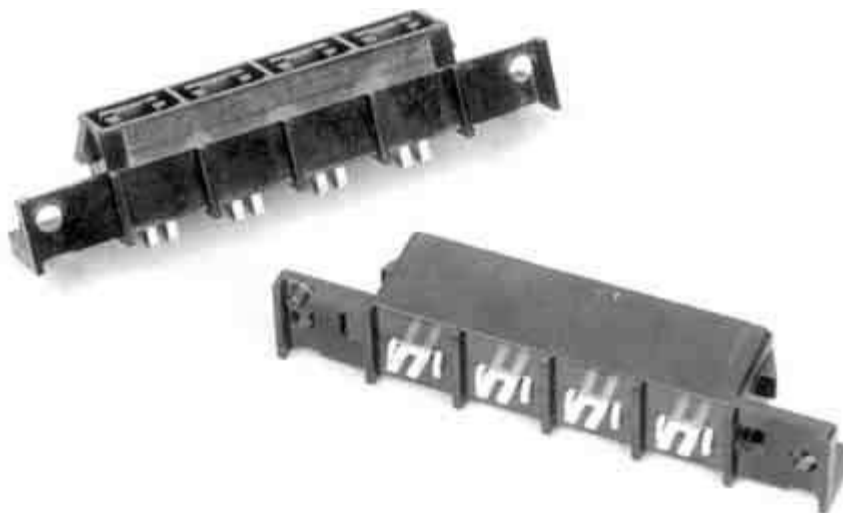
Instruction Sheets

408-3236 Installation of AMPINNERGY WTB Connectors

408-3198 Inspection of AMPINNERGY Contacts

Vertical PCB Receptacles

- Withstands vapor phase, infrared and wave soldering processes
- .040 inch minimum standoff to PCB
- Polarized to PCB; to plug
- Contact centerline spacing: .440 inch
- Overall height on PCB: .600 inch
- Fits PCB thickness .062 through .125 inch
- Contacts have dual solder posts for efficient heat dissipation, low millivolt drop and mechanical strength
- Positive latching to mating plug

Contacts — Tin Plated Copper Alloy

No. of Positions	Dimensions			Receptacle Part Numbers
	A	B	C	
2	.93 23.50	1.56 39.62	1.84 46.61	556881-2
3	1.37 34.68	2.00 50.80	2.28 57.79	556881-3
4	1.81 45.85	2.44 61.98	2.72 68.97	556881-4
5	2.25 57.03	2.88 73.15	3.16 80.14	556881-5
6	2.69 68.20	3.32 84.33	3.60 91.32	556881-6
7	3.13 79.38	3.76 95.50	4.04 102.49	556881-7
8	3.57 90.56	4.20 106.68	4.48 113.67	556881-8

No. of Positions	Receptacle Part Numbers
4	558574-1
6	558084-1

Catalog 1773096
Revised 2-10
www.tycoelectronics.com

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.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-(0)8002-67666

AMPINNERGY Wire-To-Board Connectors (Continued)

Right-Angle PCB Receptacles

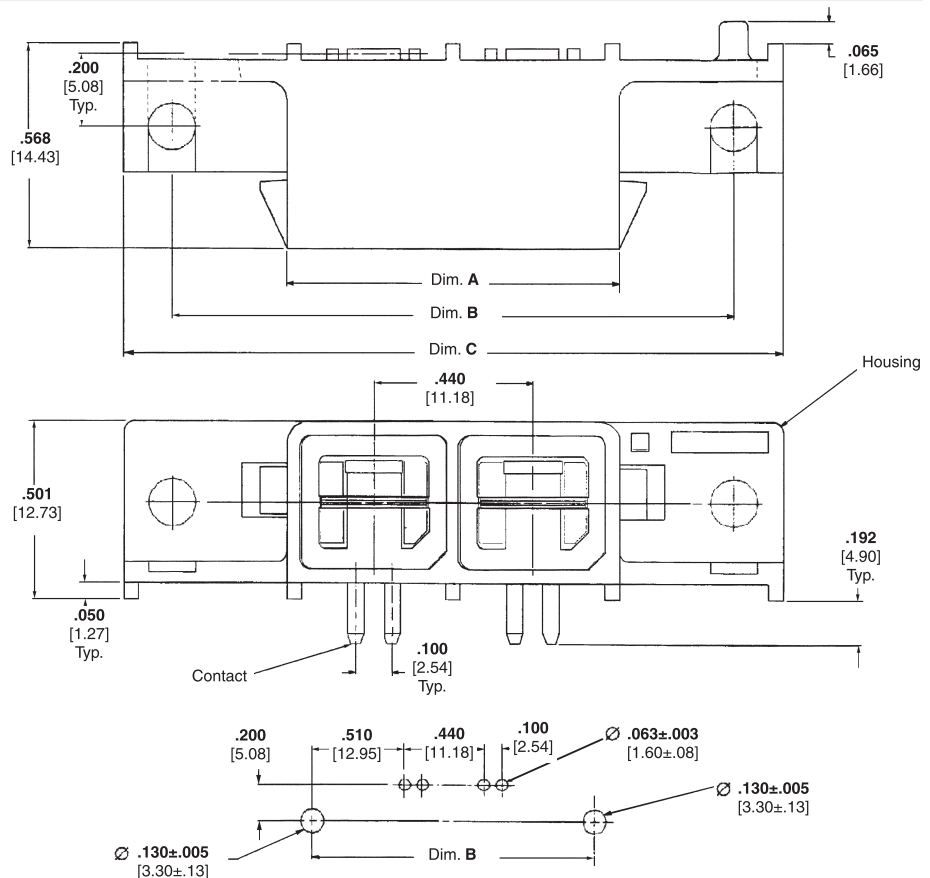
Product Facts

- Withstands vapor phase, infrared and wave soldering processes
- .040 inch minimum standoff to PCB
- Receptacles polarized to plug
- Contact centerline spacing: .440 inch
- Overall height on PCB: .600 inch
- Fits PCB thickness .062 through .125 inch
- Contacts have dual solder posts for efficient heat dissipation, low millivolt drop and mechanical strength
- Positive latching to mating plug

Material and Finish

Housing — Polyphenylene Sulfide, Black, 94V-0

Contacts — Tin Plated Copper Alloy



PCB Thickness — .062-.125 inch

No. of Positions	Dimensions			Receptacle Part Numbers
	A	B	C	
2	.93 23.50	1.56 39.62	1.84 46.61	556882-2
3	1.37 34.68	2.00 50.80	2.28 57.79	556882-3
4	1.81 45.85	2.44 61.98	2.72 68.97	556882-4
5	2.25 57.03	2.88 73.15	3.16 80.14	556882-5
6	2.69 68.20	3.32 84.33	3.60 91.32	556882-6
7	3.13 79.38	3.76 95.50	4.04 102.49	556882-7
8	3.57 90.56	4.20 106.68	4.48 113.67	556882-8

Note: All part numbers are RoHS compliant.

AMPINNERGY Wire-To-Board Connectors (Continued)

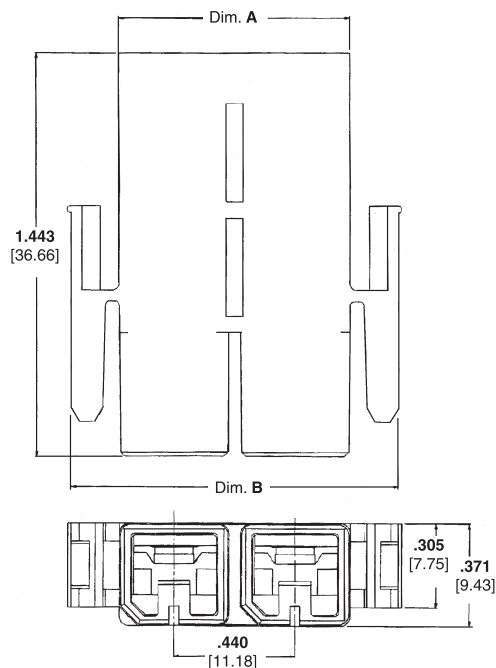
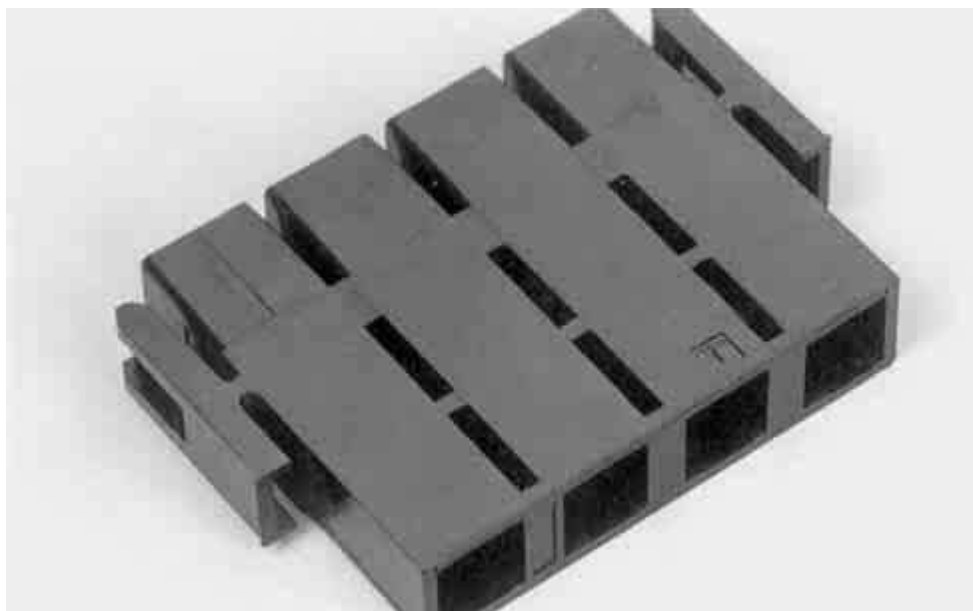
Plug Housings

Product Facts

- One-piece housing
- Polarized to mating receptacles
- Positive latching to mating receptacles
- Accepts crimp contacts
Part Numbers 556880-2 and 556883-1
- Internal latching of crimp contact

Material

Housing — Polycarbonate,
Black, 94V-0



No. of Positions	Dimensions		Plug Part Numbers
	A	B	
2	.85 21.42	1.20 30.31	556879-2
3	1.29 32.59	1.64 41.48	556879-3
4	1.73 43.77	2.08 52.66	556879-4
5	2.17 54.94	2.52 63.83	556879-5
6	2.61 77.30	2.96 75.01	556879-6
7	3.05 77.30	3.40 86.19	556879-7
8	3.49 88.47	3.84 97.36	556879-8

Note: All part numbers are RoHS compliant.

AMPINNERGY Wire-To-Board Connectors (Continued)

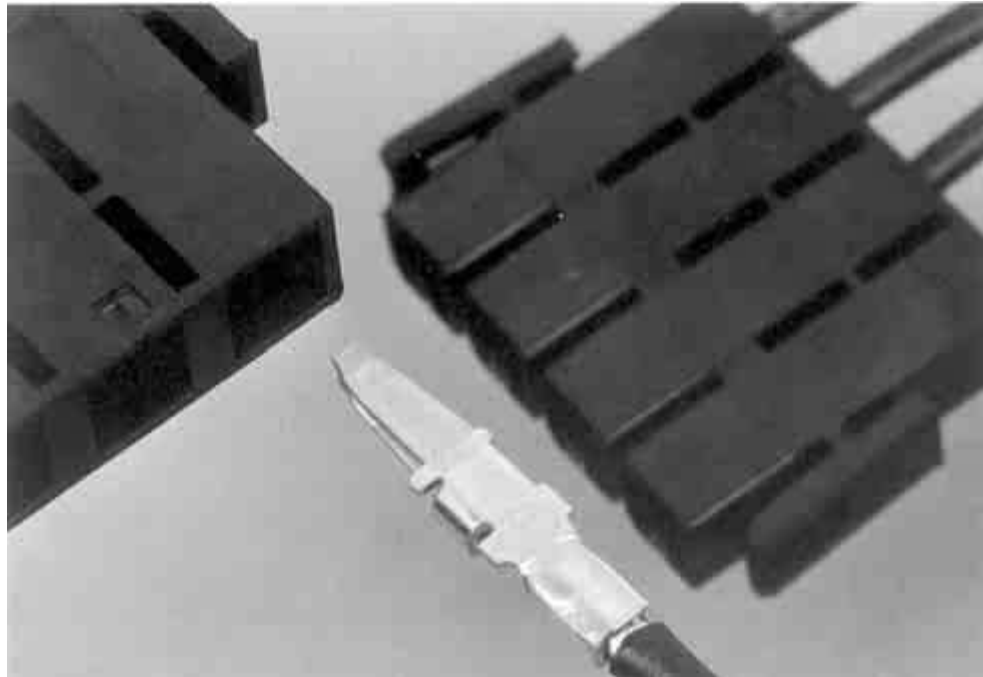
Crimp Contacts

Product Facts

- Contacts are dual beam design

Material and Finish

Contacts—Tin Plated Copper Alloy



Wire barrel accepts one 10 or 12 AWG stranded copper conductor

Part Number 556880-2 Strip

Part Number 556880-1 Loose Piece

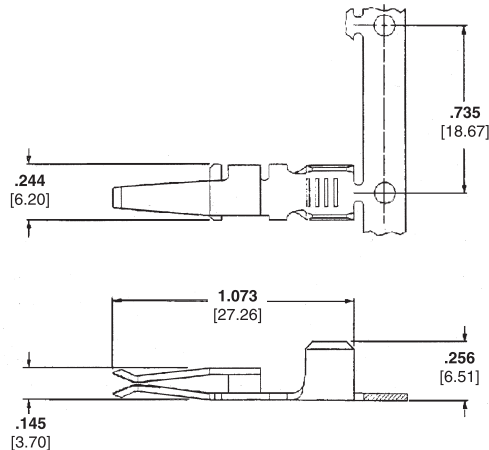
Application Tooling

Applicator Part Number

567256-3 (for Lead Makers)

567256-4 (for AMP-O-ELECTRIC Model K Machine)

567256-6 (for AMP-O-ELECTRIC Model G Machine)



Wire barrel accepts one 14, 16 or 18 AWG stranded copper conductor

Part Number 556883-1 Loose Piece

Part Number 556883-2 Strip

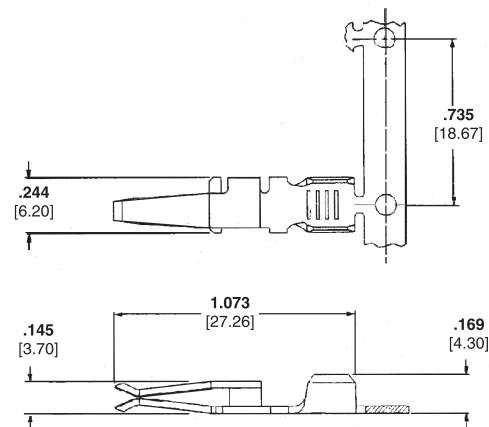
Application Tooling Part Number

69710-1 Hand Tool

58492-1 Die Set (14 AWG)

58493-1 Die Set (18-16 AWG)

91308-1 Extraction Tool



Note: All part numbers are RoHS compliant.