Printed Circuit Board Terminals and Disconnects

RoHS Ready

Tyco Electronics

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Printed Circuit Board PCB Pin Receptacles

Need more information?

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Technical Support is staffed with specialists well versed in all Tyco Electronics products. They can provide you with:

- Technical Support
- Catalogs
- Technical Documents
- Product Samples
- Tyco Electronics Authorized Distributor Locations

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Restriction on the use of Hazardous Substances (RoHS)

At Tyco Electronics, we're ready to support your RoHS requirements. We've assessed more than 1.5 million end items/components for RoHS compliance, and issued new part numbers where any change was required to eliminate the restricted materials. Part numbers in this catalog are identified as:

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NOTE: For purposes of this Catalog, included within the definition of RoHS Compliant are products that are clearly "Out of Scope" of the RoHS Directive such as hand tools and other non-electrical accessories.

NOTE: Information regarding RoHS compliance is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information provided by our suppliers. This information is subject to change. For latest compliance status, refer to our website referenced at right.

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Our comprehensive on-line RoHS Customer Support Center provides a forum to answer your questions and support your RoHS needs. A RoHS FAQ (Frequently Asked Questions) is available with links to more detailed information. You can also submit RoHS questions and receive a response within 24 hours during a normal work week. The Support Center also provides:

- Cross-Reference from Non-compliant to Compliant Products
- Ability to browse RoHS Compliant Products in our on-line catalog
- Downloadable Technical Data Customer Information Presentation
- More detailed information regarding the definitions used above
- So whatever your questions when it comes to RoHS, we have the answers at www.tycoelectronics.com/leadfree

RoHS Customer Support Center

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See inside back cover for Global Contacts and phone numbers.

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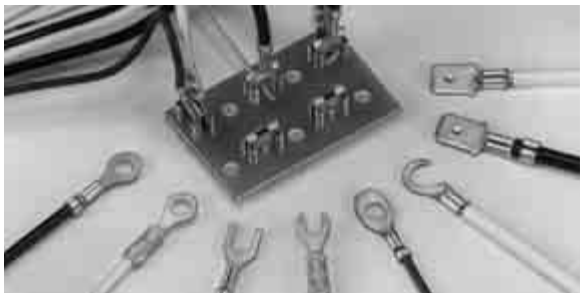
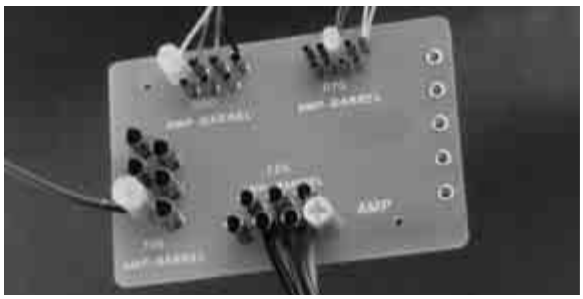
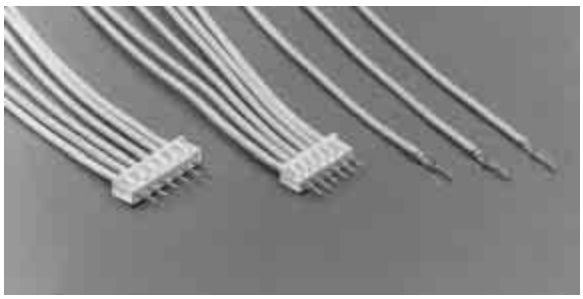
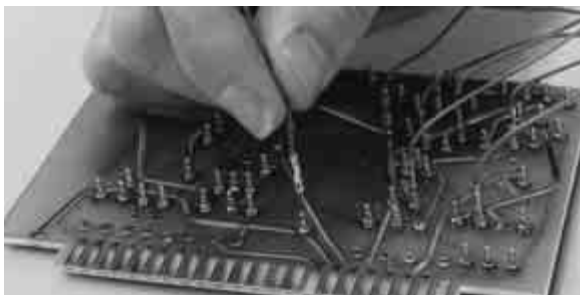

Printed Circuit Board (PCB) Receptacles

Miniature AMP-IN Terminals

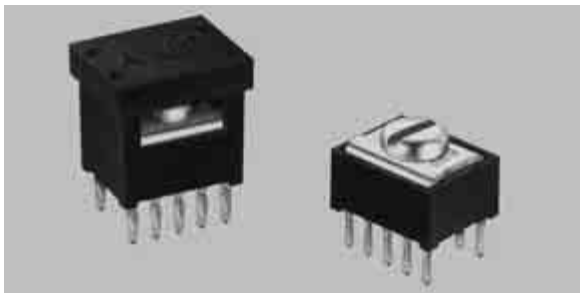

AMP-BARREL Terminals


Low Profile Miniature AMP-IN Connectors


Printed Circuit Board Disconnects

Test Probe Receptacles

AMP-IN and AMP EDGE Terminals


Power Taps

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Japan: 81-44-844-8013
UK: 44-8706-080-208

Printed Circuit Board (PCB) Pin Receptacles

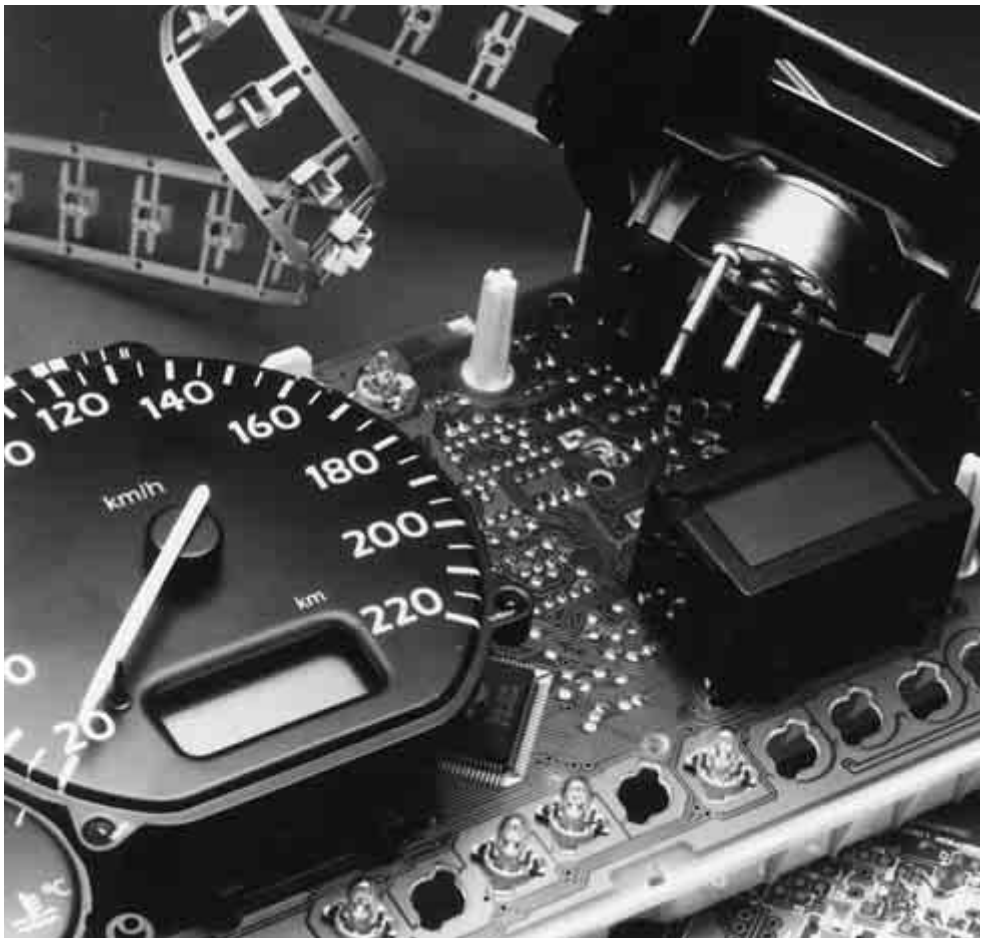
Product Facts

- **Components with pin contact can be easily inserted into the printed circuit board after the pin receptacles are flow soldered**
- **The receptacles hold the pins from the components without the necessity of soldering**
- **Components can be easily removed from the printed circuit board for replacement or repair**
- **Components with pin contacts may be mated and unmated 10 times**
- **The receptacle contacts are securely clinched to the printed circuit board prior to soldering**
- **The receptacles are machine applied by semiautomatic and automatic insertion equipment**
- **Components may be inserted from either side of the printed circuit board**

Technical Documents

Product Specification
108-1411

Application Specification
114-2127



The Printed Circuit Board Pin Receptacle provides a reliable and cost effective means of attaching components with pin contacts to a printed circuit board. Components are held in place without solder allowing for their easy removal from the printed circuit board for replacement or repair. Receptacle contacts are inserted and securely clinched to the printed circuit board by means of semiautomatic or automatic machines.

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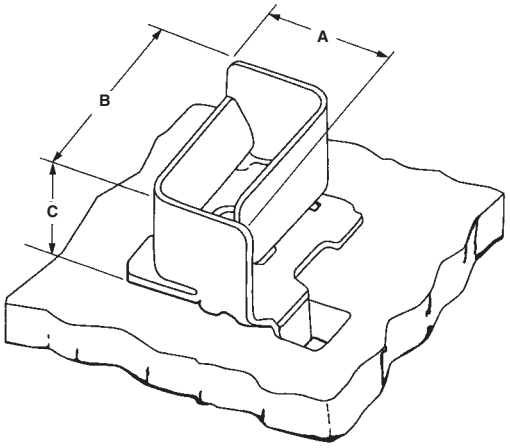
Printed Circuit Board (PCB) Pin Receptacles (Continued)

Material and Finish

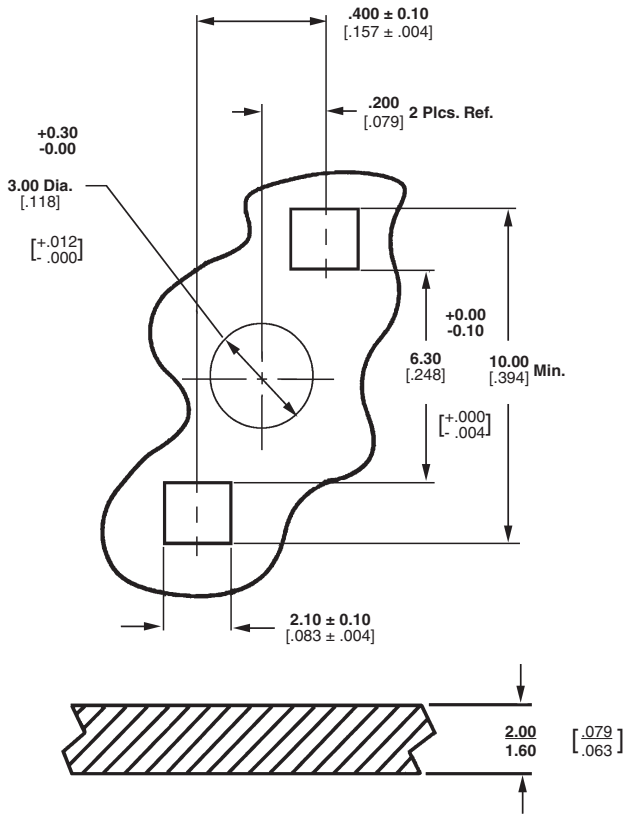
Tin plated phosphor bronze



Mating Pin Dia.	PCB Thickness	Dimensions A	Dimensions B	Dimensions C	Receptacle Part No.	Insertion Head[1]
.088-.093 2.24-2.36	**.063-.079** 1.60-2.01	**.236** 5.99	**.276** 7.01	**.181** 4.60	63566-1	904608-1
.098 2.49	**.063-.079** 1.60-2.01	**.236** 5.99	**.276** 7.01	**.181** 4.60	63572-1	853439-3

[1]For use with either AMP FHIS Bench Machine 464300-1 or AMP Comp-U-Sertor II Machine 122300-1.
Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

Recommended PCB Layout



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Printed Circuit Board (PCB) Receptacles

Product Facts

- **Receptacles accept all .250 x .016 [6.35 x 0.41] thick terminal configurations**
- **Receptacles available for .250 x .032 [6.35 x 0.81] thick FASTON tab terminals**
- **Receptacles available for prepless termination of 24-22 AWG [0.2 - 0.4 mm^2] solid wire using displacement crimp technique**
- **Available in tin-plated brass**
- **No tooling needed to insert or remove terminals**
- **Continuous strip contacts allow high-speed application with single or multiple-head insertion machines**
- **An economical means of retrofitting and field replacing wire-to-board connections**

Technical Documents

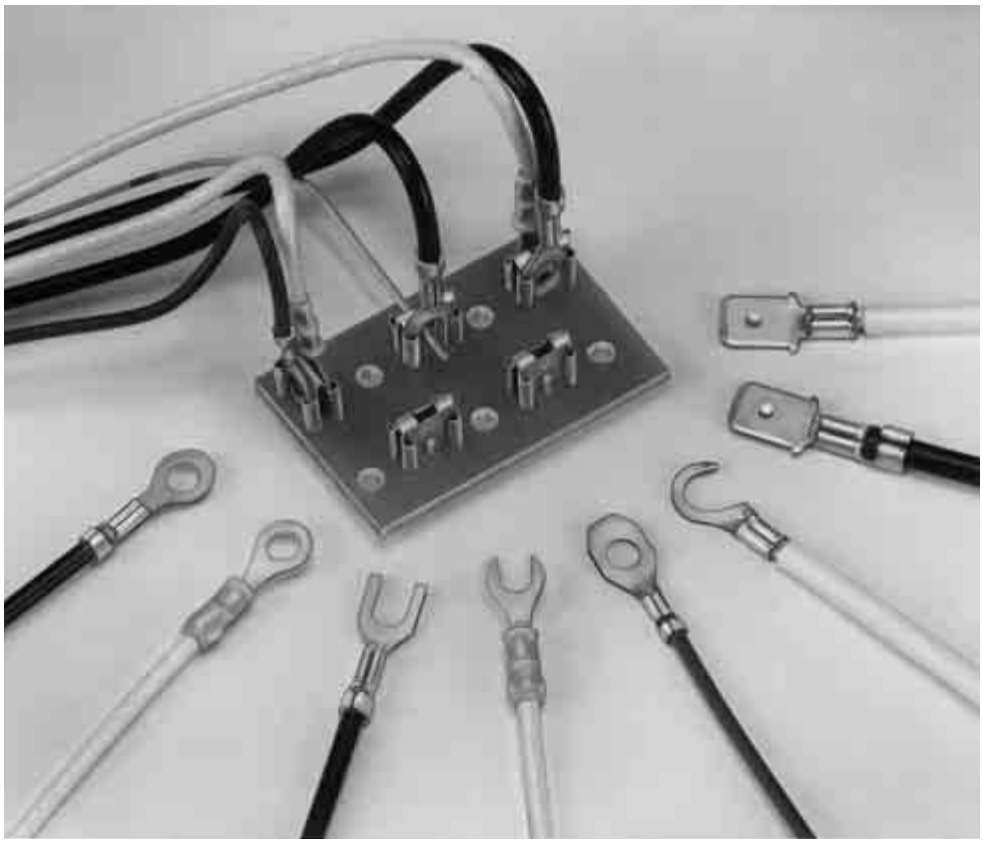
Product Specification

108-2005 Receptacle, Spade, PCB

Application Specifications

114-2001 Receptacle, PCB

114-2037 Receptacle, PCB, Clinchable



The Printed Circuit Board Receptacle is used in wire-to-printed circuit board terminations. Wires may be terminated with terminals having tongue widths and thicknesses of .250 x .016 [6.35 x 0.41] and FASTON tab terminals of .250 x .032 [6.35 x 0.81]. These terminated wires are plugged into the receptacle and may be removed and replugged as required. An added feature is the ability of one receptacle to accept a 24-22 AWG [0.2-0.4 mm^2] unterminated solid wire as well as a terminated wire.

The receptacle has applications in all industries requiring wire-to-pc board applications both in new equipment and existing equipment. The purpose of its design is to allow field replacement without costly retrofitting. In new equipment, the pc board receptacle can be used to give flexibility in selection of wire termination, including tongue, fork, open barrel, and FASTON tabs. This receptacle also has the ability to replace screw and nut arrangements. In existing equipment, the receptacle is just as versatile and can be used for field replacement where the original wire termination remains the same, but the board layout changes. In essence, it allows you to plug the previously terminated wires into the new model without costly changes to wire termination tooling.

The pc board receptacle is a cost saving design that gives you a wide selection of wire termination alternatives. It is used in new equipment which provides versatility of connection and in old equipment to allow field replacements of units without costly retrofitting. In all cases installation of wire-to-board termination is accomplished without tools. For additional savings, the receptacle is designed to be inserted into your board by high-speed application equipment, then wave soldered giving you the lowest applied cost.

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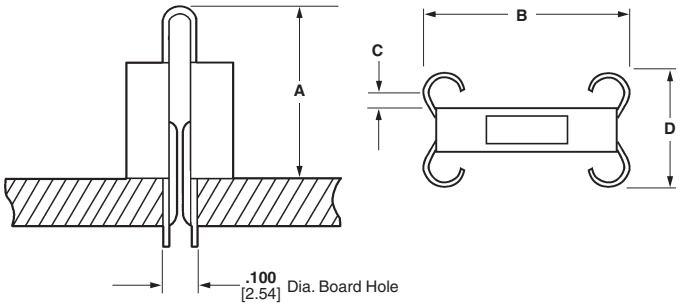
Printed Circuit Board (PCB) Receptacles (Continued)

Material and Finish

Tin plated brass



Accepts	Dimensions				Strip Form		Loose Piece
	A Max.	B	C	D Max.	Receptacle	Inserter Applicator[2]	Receptacle
.250 x .016 6.35 x 0.41 Terminals	**.290** 7.37	**.292** 7.42	**.012** 0.30	**.190** 4.83	62745-1	—	62806-1
					62111-2	467322-1	
					62751-1[3]	467322-2	
.250 x .016 6.35 x 0.41 **24-22 AWG** Solid Wire	**.290** 7.37	**.292** 7.42	**.012** 0.30	**.190** 4.83	62199-2	467322-1	—
.250 x .032 6.35 x 0.81 FASTON Tab Terminals	**.390** 9.91	**.318** 8.08	**.025** 0.64	**.275** 6.99	62172-2[1]	—	—

[1]For .123±.002 [3.12±0.05] board hole only.
[2]For use with AMP "U" Frame Machine 691679-1.
[3]With clinchable pcb tabs.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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FASTON Printed Circuit Board Tabs and Receptacles

Product Facts

- **Full line of PCB tabs and receptacles**
- **Straight and right-angle tabs available in .250, .187 and .110 series**
- **Receptacles produced in .250/.205 x .032 or .025. Standard or low insertion force receptacles available**
- **Strip product for automatic insertion**
- **Compatible with industry insertion equipment or full line of equipment available from Tyco Electronics**

Tyco Electronics now offers a complete line of Printed Circuit Board tabs and receptacles. Tyco Electronics PCB product can be found in switches and on control boards around the world. Our product offering includes .250, .187 and .110 series vertical tabs, .250 and .187 right-angle tabs and .250/.205 vertical receptacles. Product is available in loose piece and strip form. In a short time, our product offering has grown from a handful of part numbers to dozens of parts. We continue to add to our product family as design changes, innovation and customers' requirements expand.

Insertion equipment is available for our entire strip product. The semiautomatic, air-powered Modular Insertion System (MIS) Bench machine is available for customers with moderate insertion requirements. The compact, fully automatic Comp-U-Sertor II machine is available for applications where larger volumes will be inserted and where programmable, microprocessor controlled equipment is desired. Insertion heads for both pieces of equipment are interchangeable, requiring less equipment investment. Tyco Electronics will also custom build a complete "pass through" system for high-end customer applications.

The Tyco Electronics product has been designed to be compatible with industry insertion equipment. In many cases, this product will work as a "drop in" replacement for existing product. In some cases, slight modifications or minor tooling changes are necessary. Please consult Technical Support or the Global Application Tooling Group for more details.

Tyco Electronics is one of the only companies that offers printed circuit board tabs and receptacles as well as the crimp to wire receptacles and tabs that offer a complete solution for your packaging needs.

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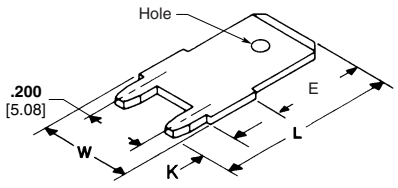
FASTON Printed Circuit Board Tabs and Receptacles (Continued)

250 Series Printed Circuit Board Tabs

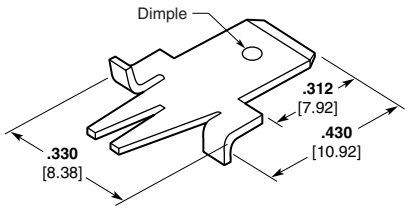
Stock Thickness — .032 [0.81]
Board Hole Size —
.055 ± .002 [1.40 ± 0.05] Dia.



Dimensions				Material and Finish			Terminal Part No.	
W	L	K	E				Strip[2]	Loose Piece[1]
.312 7.92	.502 12.75	.125 3.18	.312 7.92	Tin Plated Brass	X	X	63839-1[3]	—
	.547 13.89	.157 3.99	.312 7.92	Tin Plated Brass	X	X	63986-1	—
	.552 14.02	.150 3.81	.312 7.92	Tin Plated Brass	—	—	1217566-1	—
.295 7.49	.622 15.80	.125 3.18	.312 7.92	Tin Plated Brass	X	X	—	62409-1[3]
					—	—	—	1217056-1
.280 7.11	.487 12.37	.125 3.18	.312 7.92	Tin Plated Brass	X	X	62650-1[3]	—
	.532 13.51	.175 4.45	.312 7.92	Tin Plated Brass	X	X	63650-1[3]	—
	.622 15.80	.125 3.18	.452 11.48	Tin Plated Brass	X	X	—	63900-1
					—	—	63755-1[3]	—

[1] Board Hole Size:.060/.053 [1.52/1.35] Dia.
[2] Insertion equipment available.
[3] Dimple.

Stock Thickness — .032 [0.81]
Board Hole Size —
.100 ± .002 [2.54 ± 0.05] Dia.



Material and Finish			Terminal Part No.	
			Strip[1]	Loose Piece
Tin Plated Brass	X	X	63066-1	63067-1

[1] Insertion equipment available.

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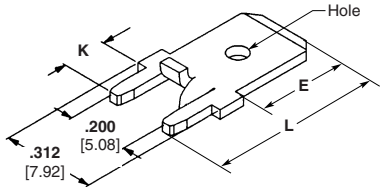
FASTON Printed Circuit Board Tabs and Receptacles (Continued)

250 Series Printed Circuit Board Tabs (Continued)

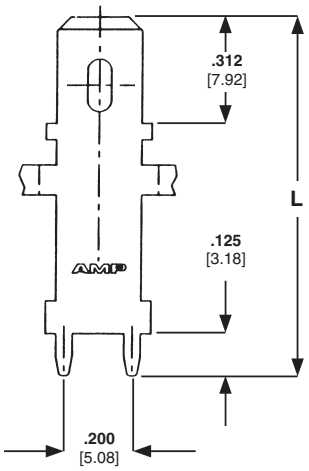
Stock Thickness — .032 [0.81]
Board Hole Size —
.055 ± .002 [1.40 ± 0.05] Dia.



Dimensions			Material and Finish			Terminal Part No.	
L	K	E				Strip[1]	Loose Piece
.552 14.02	**.150** 3.81	**.312** 7.92	Tin Plated Brass	X	X	63862-1[2]	1742188-1[2]
				X	X	63824-1	63849-1
.582 14.78	**.180** 4.57	**.312** 7.92	Tin Plated Brass	X	X	1217136-1	—
				X	X	—	1217421-1
.650 16.51	**.150** 3.81	**.410** 10.41	Tin Plated Brass	X	X	1217126-1[2]	—
.710 18.03	**.150** 3.81	**.470** 11.94	Tin Plated Brass	X	X	1217125-1	1217169-1
.780 26.18	**.150** 3.81	**.540** 13.72	Tin Plated Brass	X	X	1217127-1	—
				X	X	—	1217167-1

[1] Insertion equipment available.
[2] Dimple.

Stock Thickness — .032 [0.81]
Board Hole Size —
.055 ± .002 [1.40 ± 0.05] Dia.



Dimension L	Material and Finish			Terminal Part No.
1.062 26.97	Tin Plated Brass	X	X	63949-1
1.207 30.66	Tin Plated Brass	X	X	63950-1

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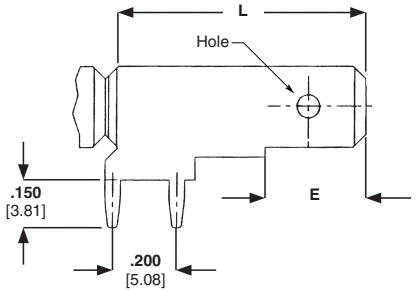
FASTON Printed Circuit Board Tabs and Receptacles (Continued)

250 Series Printed Circuit Board Tabs (Continued)

Right-Angle Printed Circuit Board Tabs

Stock Thickness — .032 [0.81]
Board Hole Size —
.055 ± .002 [1.40 ± 0.05] Dia.

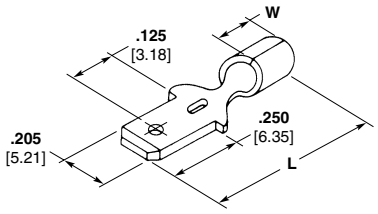


Dimensions		Material and Finish			Terminal Part No.	
E	L				Strip[1]	Loose Piece
.312 7.92	**.800** 20.32	Tin Plated Brass	X	X	63951-1	1217754-1
.358 9.09	**.630** 16.00	Tin Plated Brass	—	—	—	928814-1
.738 18.74	**1.00** 25.40	Tin Plated Brass	—	—	63952-1	—

[1] Insertion equipment available.

205 Series Printed Circuit Board Only

Stock Thickness — .020 [0.51]
Board Hole Size —
.100 – .095 [2.54 – 2.41] Dia.

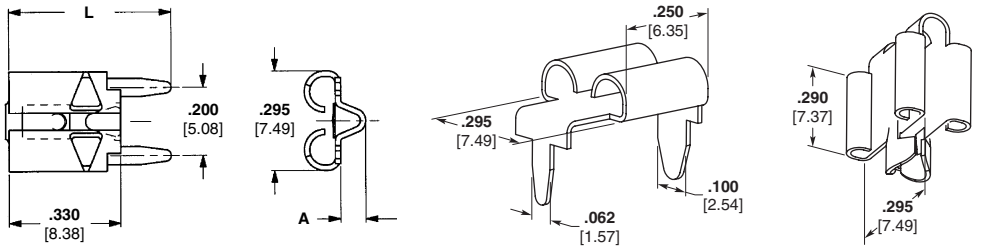


Dimensions		Material and Finish			Terminal Part No.
L	W				
.525 13.34	**.070** 1.78	Tin Plated Brass	X	X	62411-1[1]
.545 13.84	**.160** 4.06	Tin Plated Brass	X	X	60284-2[1]

[1] Loose piece only.

.250/.205 Printed Circuit Board Receptacles

Stock Thickness — .016 [0.41]



Style	Fits Tab	Dimensions		Material and Finish			Part No.	
		A	L				Strip	Loose Piece
A	**.032** 0.81 (LIF)	**.075** 1.91	**.480** 12.19	Tin Plated Brass	—	—	63968-1	—
	.032 0.81	**.075** 1.91	**.480** 12.19	Tin Plated Brass	—	—	63969-1	1217080-1
	.025 0.64 (LIF)	**.075** 1.91	**.480** 12.19	Tin Plated Brass	—	—	63994-1	—
	.025 0.64	**.075** 1.91	**.510** 12.95	Tin Plated Brass	—	—	1217137-1[2]	—
			.480 12.19	Tin Plated Brass	—	—	1217180-1	—
B	**.020** 0.51	—	—	Tin Plated Phos Bronze	—	—	1217107-1[1]	—
C	**.250 x .016** 6.35 x 0.41 Spade	—	—	Tin Plated Brass	—	—	62751-1	62806-1

[1] Horizontal mount.
[2] .180 [4.57] length — solder legs.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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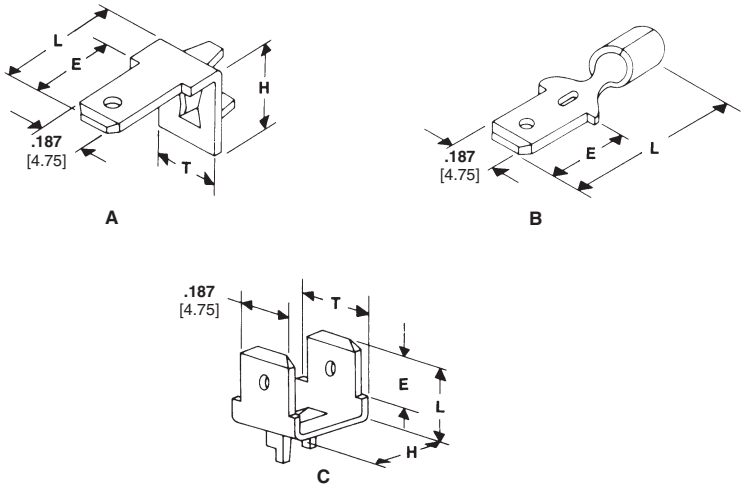
FASTON Printed Circuit Board Tabs and Receptacles (Continued)

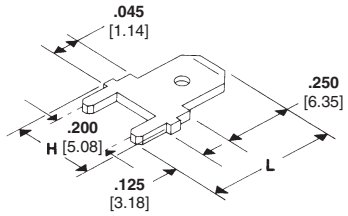
187 Series
Printed Circuit Board Tabs

Stock Thickness — .020 [0.51]



Type	Board Thickness	Dimensions T	L	E	H	Material and Finish	UL	CSA	Terminal Part No.
A	**.055** 1.38	**.250** 6.35	**.332** 8.43	**.250** 6.35	**.283** 7.19	Pre-Tin Brass	X	X	61543-1[2]
	.062 1.57	**.250** 6.35	**.332** 8.43	**.250** 6.35	**.283** 7.19	Pre-Tin Brass	X	X	62403-1[2]
B	**.062** 1.57	—	**.545** 13.84	**.250** 6.35	—	Tin Plated Brass	X	X	61907-1[1]
C	**.062** 1.57	**.250** 6.35	**.332** 8.43	**.250** 6.35	**.303** 7.70	Pre-Tin Brass	X	X	62221-1[2]

[1] Loose piece only.
[2] Insertion equipment available.



Tab Thickness	Board Hole Size	Dimensions L	H	Material and Finish	UL	CSA	Terminal Part No. Strip[2]	Loose Piece
.032 0.81	**.053-.057** 1.35-1.45	**.487** 12.37	**.280** 7.11	Tin Plated Brass	X	X	63525-1[1]	1217057-1[1]
.020 0.51	**.050-.054** 1.27-1.37	**.487** 12.37	**.285** 7.24	Tin Plated Brass	X	X	63603-1	1217131-1
		.440 11.18	**.312** 7.92	Tin Plated Brass	X	X	63838-1	—

[1] Dimple.
[2] Insertion equipment available.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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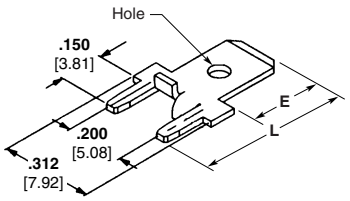
FASTON Printed Circuit Board Tabs and Receptacles (Continued)

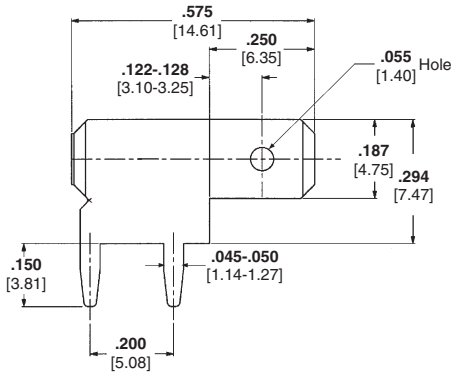
187 Series Printed Circuit Board Tabs (Continued)



Tab Thickness	Dimensions L	Dimensions E	Material and Finish	UL	CSA	Terminal Part No. Strip[3]	Terminal Part No. Loose Piece
.032 0.81	.490 12.45	.250 6.35	Tin Plated Brass	X	X	63860-1[1]	—
				—	—	1742361-1	—
	.710 18.03	.470 11.94	Tin Plated Brass	X	X	1217124-1	—
	.635 16.13	.395 10.03	Tin Plated Brass	—	—	—	1217332-1[2]
.020 0.51	.490 12.45	.250 6.35	Tin Plated Brass	X	X	1742362-1	63982-1

[1] Dimple.
[2] No hole or dimple.
[3] Insertion equipment available.

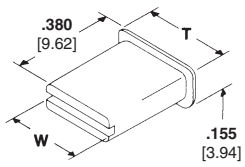
Right-Angle Printed Circuit Board Tabs



Stock Thickness	Board Hole Size	Material and Finish	UL	CSA	Terminal Part No.
.032 0.81	.053-.057 1.35-1.45	Tin Plated Brass	X	X	1217061-1
			—	—	1217756-1[1]
.020 0.51	.050-.054 1.27-1.37	Tin Plated Brass	X	X	1217062-1
			—	—	1217156-1[1]

[1] Loose piece.

Tab Caps 187 and 250 Series



Tab Size	Material	UL 94[1]	Color	Dimensions T	Dimensions W	Insulator Part No.
"187" Series .020 [0.51] Thick	Nylon	V2	Natural	.320 8.13	.260 6.60	360041-1
"250" Series .032 [0.81] Thick	Nylon	V2	Natural	.380 9.65	.320 8.13	360042-1

[1] Flammability rating.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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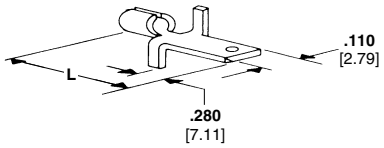
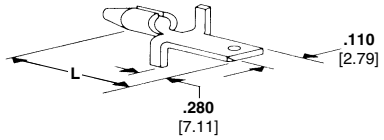
FASTON Printed Circuit Board Tabs and Receptacles (Continued)

.110 Series Printed Circuit Board Tabs

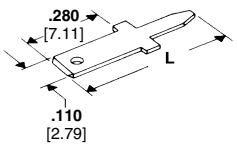
Stock Thickness — .020 [0.51]



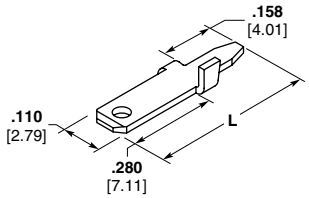
A



B



C



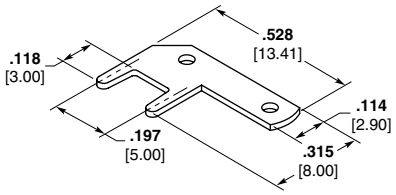
D

Style	Mating Hole Diameter	Dim. L	Material and Finish	UL	CSA	Terminal Part No.
A	**.060-.055** 1.52-1.40	**.490** 12.45	Tin Plated Brass	X	X	61134-3[1]
B	**.067-.063** 1.70-1.60	**.485** 12.32	Tin Plated Brass	X	X	61968-1[2]
				X	X	62437-1[1]
C	**.044-.048** 1.12-1.22	**.490** 12.45	Tin Plated Brass	X	X	62395-1[2]
		.622 15.80	Tin Plated Brass	X	X	63756-1[2,3]
		.910 23.11	Tin Plated Brass	—	—	63794-1[4]
		.622 15.80	Tin Plated Brass	—	—	1217514-1
	.067-.073 1.70-1.85	**.490** 12.45	Pre-tin/ Pre-copper	X	X	62669-1[2]
D	**.062-.068** 1.57-1.73	**.545** 13.84	Tin Plated Brass	—	—	1217577-1[2]

[1] Loose piece only.
[2] Insertion machine available.
[3] .032 [0.81] Stock.
[4] .060 [1.52] Tab width.

Right-Angle Printed Circuit Board Tabs

Tab Width — .114 [2.90]



Tab Thickness	PCB Hole Dia. +0/-.01 [+0/-.03]	Material and Finish	UL	CSA	Terminal Part No.
.032 0.81	**.055** 1.40	Tin Plated Brass	—	—	725963-2
.020 0.51	**.051** 1.30	Tin Plated Brass	—	—	725996-2

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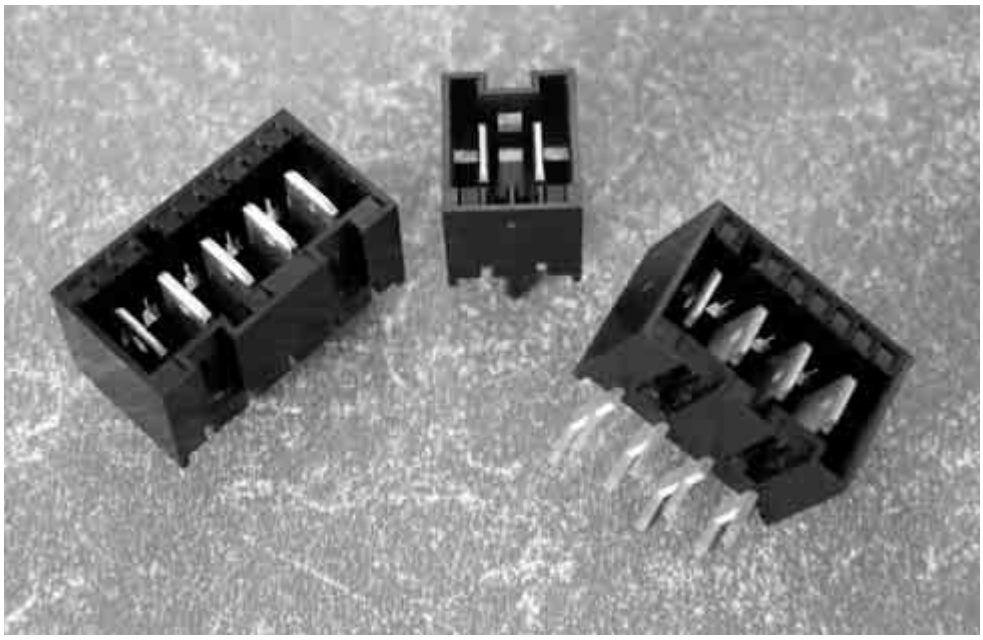
FASTON Printed Circuit Board Tabs and Receptacles (Continued)

FASTON RAST 5 Tab Header Assembly, 250 Series



Product Facts

- .250 x .032 [6.3 x 0.8] FASTON Tabs built on 5 mm centerlines
- Shrouded Header Assembly that conforms to the European RAST 5 Standard
- Mating Tyco Electronics Connector Families include Positive Lock RAST 5 Connector System, AMP Standard Timer RAST 5, AMP multifitting, AMP multifitting MKII, AMP MONO-SHAPE TAB MKI, and AMP MONO-SHAPE MKII
- Vertical and Right-Angle Versions available in 2 through 8 positions
- Tin Plated Brass Tabs are Standard, Silver Plated Tab Versions are available upon Request
- Lead Free Design is RoHS and ELV Compliant
- UL 94 V-0 Housing meets Glow Wire IEC 60695-1 Section 30.2.3 – 750° NO FLAME
- Component Recognition USR and CSR under File No. E28476
- VDE tested according to DIN EN61984 (VDE0627): 2002-09; EN61984: 2001 VDE Reg. No. B718

The FASTON RAST 5 Tab Header Assembly system is designed to provide a RAST 5 interface to a Printed Circuit Board. The RAST 5 Standard defines and standardizes the connector mating interface. 250 Series Tabs are placed on 5mm center lines with a plastic shroud that has keying, polarization, and locking features that help prevent mismating of the corresponding RAST 5 female receptacle housing. The header assembly is designed to accept any RAST 5 compliant female receptacle system or individual quick connects.

The most common application for this product is for household appliance controls where OEMs want to minimize the possibility of crossed wires. It is also suited for other applications such as gaming, vending, and exercise equipment controls as well as residential, commercial and industrial HVAC and light industrial equipment. The system comes fully assembled and is easily press fit into the board for the soldering operation. Preassembly of the tabs into the Header ensures tab perpendicularity to the board. The solder leg PCB layout is based on the Industry Standard for similar systems available on the market. To further enhance correct placement onto the board, the vertical system includes a plastic post which allows Header placement to be polarized.

Material

UL 94 V-0, 6/6 Nylon

See Tyco Electronics Catalogs 296599, 889803, 1308197, 1308209 for the complete line of RAST products.

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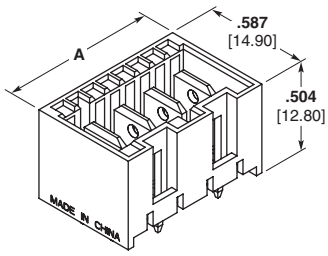
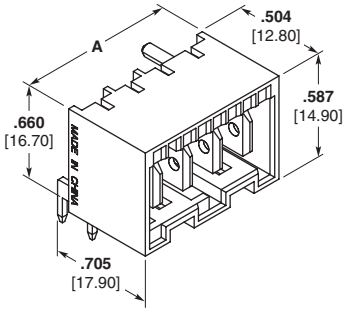
FASTON Printed Circuit Board Tabs and Receptacles (Continued)

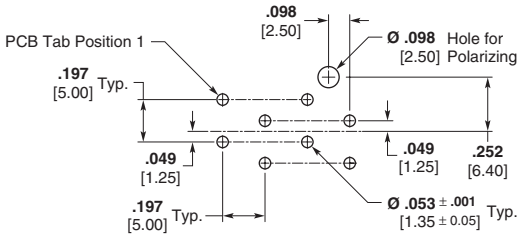
FASTON RAST 5 Tab Header Assembly, 250 Series
(Continued)



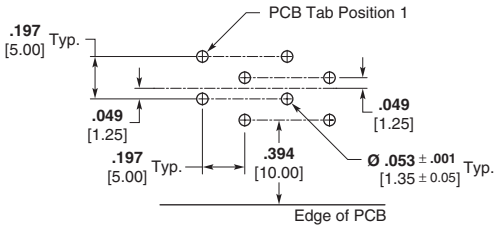
Vertical Orientation



Right-Angle Orientation



Vertical Orientation PCB Layout (Ref.) from Component Side



Right-Angle Orientation PCB Layout (Ref.) from Component Side

No. of Positions	RAST 5 Configuration	Dim. A	Part Numbers	
			Vertical	Right-Angle
2	02-A	.484 [12.30]	521382-2	521384-2
	02-B	.484 [12.30]	1-521382-2	1-521384-2
	02-C	.484 [12.30]	2-521382-2	2-521384-2
	02-E	.484 [12.30]	3-521382-2	3-521384-2
	02-G	.484 [12.30]	4-521382-2	4-521384-2
	02-I	.484 [12.30]	5-521382-2	5-521384-2
	02-P	.484 [12.30]	6-521382-2	6-521384-2
3	03-A	.681 [17.30]	521382-3	521384-3
	03-B	.681 [17.30]	1-521382-3	1-521384-3
	03-D	.681 [17.30]	2-521382-3	2-521384-3
	—	.681 [17.30]	3-521382-3	3-521384-3
4	04-A	.878 [22.30]	521382-4	521384-4
	04-B	.878 [22.30]	1-521382-4	1-521384-4
	04-C	.878 [22.30]	2-521382-4	2-521384-4
	04-F	.878 [22.30]	3-521382-4	3-521384-4
	04-G	.878 [22.30]	4-521382-4	4-521384-4
	—	.878 [22.30]	5-521382-4	5-521384-4
5	05-B	1.075 [27.30]	521382-5	521384-5
	—	1.075 [27.30]	1-521382-5	1-521384-5
	—	1.075 [27.30]	2-521382-5	2-521384-5
	—	1.075 [27.30]	3-521382-5	3-521384-5
6	06-A	1.272 [32.30]	521382-6	521384-6
	06-D	1.272 [32.30]	1-521382-6	1-521384-6
7	07-C	1.469 [37.30]	521382-7	521384-7
	—	1.469 [37.30]	1-521382-7	1-521384-7
	—	1.469 [37.30]	2-521382-7	2-521384-7
	—	1.469 [37.30]	3-521382-7	3-521384-7
8	08-D	1.665 [42.30]	521382-8	521384-8
	—	1.665 [42.30]	1-521382-8	1-521384-8
	08-C	1.665 [42.30]	2-521382-8	2-521384-8

Refer to the Tyco Electronics Customer Drawing for additional details.
For more information related to the RAST 5 Standard, see Tyco Electronics Literature Distribution no. 1308243.

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AMP-BARREL Terminals

Product Facts

- **Unique insulation displacement technology**
- **Eliminates wire preparation—no stripping or soldering**
- **Capable of being wave-soldered to pc board with other components, enabling wires to be terminated at a more conducive time and location**
- **Anti-solder wicking design**
- **Accepts a wide range of wire sizes, solid or stranded**
- **Available in single and two-wire version**
- **Reusable terminal**
- **Available in loose-piece or strip version**
- **Semiautomatic insertion machine for strip version**
- **Simple, rugged low cost wire insertion tool**
- **Recognized Under Component Recognition Program of Underwriters Laboratories. Inc. — File No. E28456**

Technical Documents

Product Specification

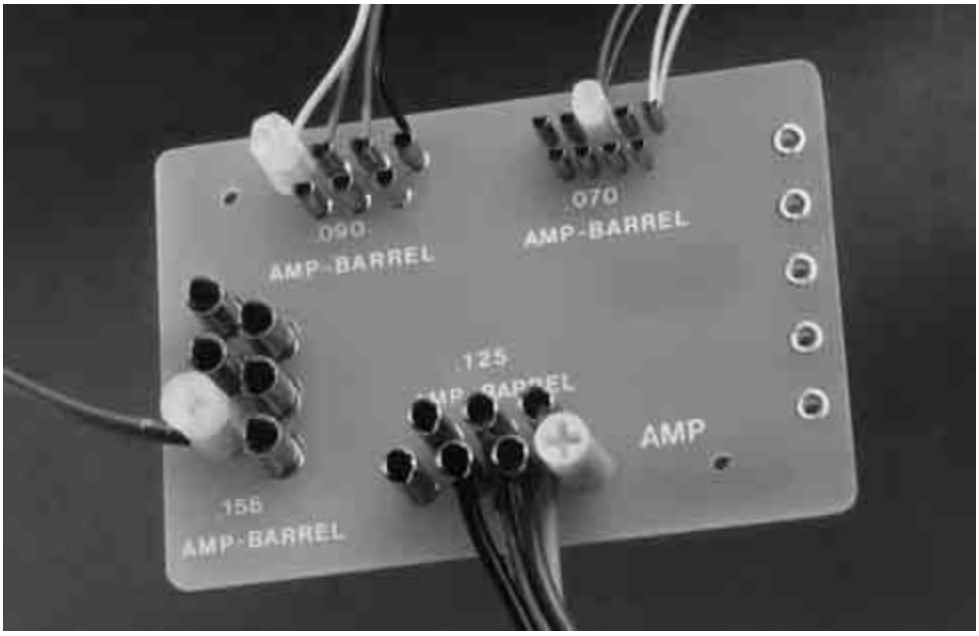
108-6043 .070 [1.78] Diameter Terminal
108-6044 .090 [2.29] Diameter Terminal
108-6025 .125 [3.18] Diameter Terminal
108-6026 .156 [3.96] Diameter Terminal

Application Specification

114-6000 AMP-BARREL Terminals

Instruction Sheets

408-3187
408-6505
408-6553



AMP-BARREL Terminals solve the problem of interconnecting discrete wires to printed circuit boards without permanently soldering them in place, and provide cost savings by eliminating the need for two-piece terminal systems, terminal strips or expensive space-consuming modular connectors.

These unique insulation displacement terminals are suitable for most printed circuit boards from .047 [1.19] to .125 [3.18] thick and are mounted in a space-saving, free-standing manner wherever required.

AMP-BARREL Terminals may be obtained in loose piece or strip form for semiautomatic machine insertion. Upon insertion, they are hand or wave-soldered with other components without fear of solder wicking into the wire termination area.

Termination is achieved by placing the end of a pre-cut unstripped wire horizontally to the board at the top of the AMP-BARREL Terminal. Insertion to the proper depth is accomplished by the use of a simple, low-cost screwdriver type tool or low cost plastic stuffer cap. These caps use a standard Phillips type screwdriver to terminate the wire. When left in place on the terminal they provide strain relief and insulation. They may be removed and reused for field changes and/or repairs. The high compliancy of the terminal assures a highly reliable, stable interconnection and withstands extreme temperature, vibration and shock.

AMP-BARREL Terminals offer the added benefit of accepting a wide wire range, solid or stranded, within the same terminal. The .125 [3.18] diameter AMP-BARREL Terminal accepts a wire range of 28-18 AWG [0.08-0.8 mm^2] with a maximum insulation diameter of .086 [2.18]. It is made of high strength, high ductility, pre-tinned phosphor bronze and accepts one or two wires of the same type that may vary in size by one wire gauge. The C-shaped cross-slot assures a reliable two-wire termination.

This product also offers a wire cutoff version which allows the wire to be placed across the top of the terminal where the hand tool terminates and trims the wire in one action.

Similarly constructed, but of smaller size, are the .070 [1.78] and .090 [2.29] diameter AMP-BARREL Terminals. These terminals accept, respectively, wire sizes of 28-26 AWG [0.08-0.15 mm^2] with a maximum insulation diameter of .036 [0.91] and 28-22 AWG [0.08-0.4 mm^2] with a maximum insulation diameter of .053 [1.35]. They also will accept two wires of the same gauge and type.

The .156 [3.96] diameter AMP-BARREL Terminal accepts a wire range of 24-18 AWG [0.2-0.8 mm^2] with a maximum insulation diameter of .115 [2.92]. It is made of tin-lead plated brass and will accept one wire per terminal.

All AMP-BARREL Terminals are reusable. This feature is extremely important when correcting wiring errors, making field repairs or modifications.

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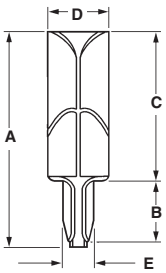
UK: 44-8706-080-208

AMP-BARREL Terminals (Continued)

.070 [1.78] and .090 [2.29] Terminals

Material and Finish

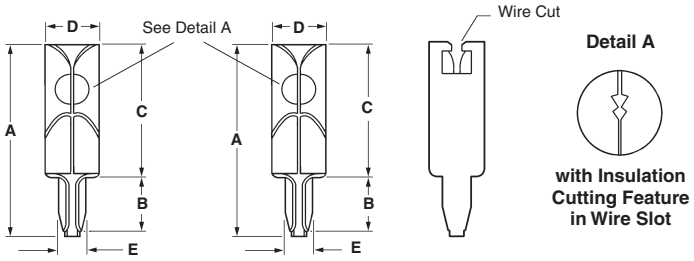
Pretinned phosphor bronze



.125 [3.18] Terminals

Material and Finish

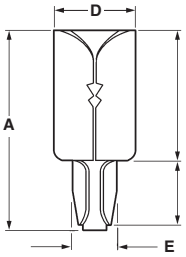
Pretinned phosphor bronze



.156 [3.96] Terminals

Material and Finish

Tin plated brass



Terminal Size	Conductor (solid or stranded)				PC Board		Terminal Dimensions					Part Nos.	
	Wire Size Range		Max. Ins. O.D.	Wire per Terminal	Thk. Range	Mtg. Hole Dia.	A	B	C	D	E	Loose Pc.	Strip
	AWG	mm²											
.070 1.78	28-26	0.08-0.15	**.036** 0.91	1 or 2	**.047-.062** 1.19-1.57	**.035-.040** 0.89-1.02	**.280** 7.11	**.090** 2.29	**.175** 4.45	**.070** 1.78	**.042** 1.07	1742255-1	1742255-2
.090 2.29	28-22	0.08-0.4	**.053** 1.35	1 or 2	**.047-.094** 1.19-2.39	**.050-.054** 1.27-1.37	**.340** 8.64	**.120** 3.05	**.210** 5.33	**.090** 2.24	**.056** 1.42	1742254-1	1742254-2
.125 3.18 Standard	28-18	0.08-0.8	**.086** 2.18	1 or 2	**.062-.094** 1.57-2.39	**.061-.065** 1.55-1.65	**.458** 11.63	**.118** 3.00	**.325** 8.26	**.125** 3.18	**.067** 1.70	552699-1*	—
					.062-.125 1.57-3.18	**.061-.065** 1.55-1.65	**	**.118** 3.00	**.325** 8.26	**.125** 3.18	**.067** 1.70	—	552699-2*
					.062-.094 1.57-2.39	**.061-.065** 1.55-1.65	**.458** 11.63	**.118** 3.00	**.325** 8.26	**.125** 3.18	**.067** 1.70	552699-4	—
					.062-.125 1.57-3.18	**.061-.065** 1.55-1.65	**	**.118** 3.00	**.325** 8.26	**.125** 3.18	**.067** 1.70	—	552699-5
.125 3.18 With wire cut-off features	28-18	0.08-0.8	**.086** 2.18	1 or 2	**.062-.094** 1.57-2.39	**.061-.065** 1.55-1.65	**	**.118** 3.00	**.325** 8.26	**.125** 3.18	**.067** 1.70	—	554935-2*
.156 3.96	24-18	0.2-0.8	**.115** 2.92	1	**.062-.094** 1.57-2.39	**.078-.082** 1.98-2.08	**.390** 9.91	**.125** 3.18	**.250** 6.35	**.156** 3.96	**.084** 2.13	1742253-1	1742253-2

*Has tough insulation cutting feature in wire slot (see Detail A in illustration). These barrels are not recommended for smaller standard wires.
**Cutoff is adjustable depending on board thickness.

Notes:
1. .070 [1.78] and .090 [2.29] terminals accept two wires of the same gauge and type.
2. The .125 [3.18] terminal accepts two wires of the same type that may vary in size by one wire gauge.
3. .070 [1.78] and .090 [2.29] terminals have a solder resist material on the inside of barrel which prevents solder wicking.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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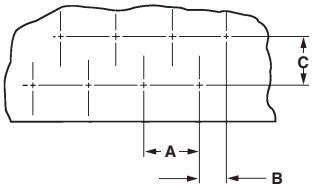
AMP-BARREL Terminals (Continued)

Recommended Printed Circuit Board Dimensions

(for use in .047 [1.19] to .125 [3.18] pc boards)



Terminal Size	Minimum Hole Spacing		
	A	B	C
.070 1.78	**.100** 2.54	**.050** 1.27	**.105** 2.67
.090 2.29	**.150** 3.81	**.075** 1.91	**.135** 3.43
.125 3.18	**.200** 5.08	**.100** 2.54	**.175** 4.45
.156 3.96	**.220** 5.59	**.110** 2.79	**.190** 4.83

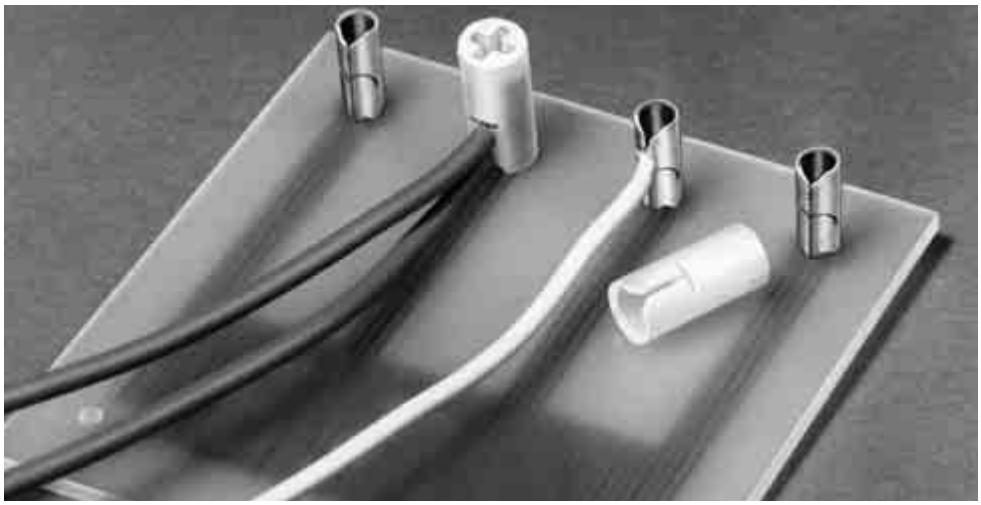
Wire Stuffer Caps

Product Facts

- Insulates
- Provides strain relief
- Acts as field service repair tool

Material

Thermoplastic



Wire Size Range		Color	For Use With Terminal Part No.	Wire Stuffer Cap Part No.
AWG	mm²			
28-26	0.08-0.15	Natural	1742255	553593-1
28-22	0.08-0.4	Natural	1742254	553594-1
22-18	0.4-0.8	Yellow	552699	230707-1
28-24	0.08-0.2	Natural	552699	230707-3
24-18	0.2-0.8	Natural	1742253	553595-1

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AMP-BARREL Terminals (Continued)

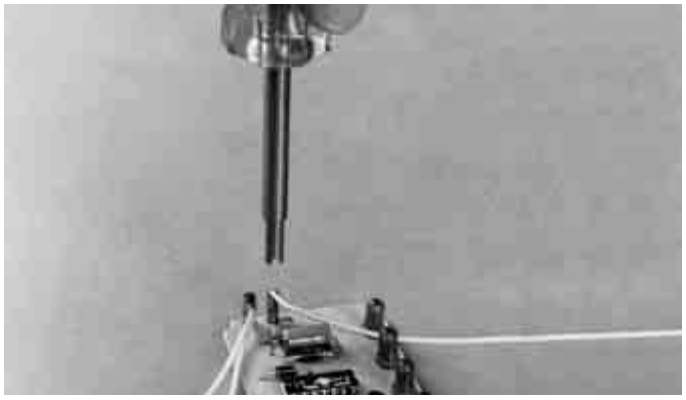
Application Tooling

Wire Insertion Tool

Precut, unstripped wires are easily terminated in the AMP-BARREL Terminal with a simple screwdriver type tool. It properly positions the wire to the correct depth in the terminal. For two wire applications, the second wire pushes the first wire into the lower section of the terminal.

For improved comfort, a slip-on cushion grip is available.

The Wire Insertion Tool should be used for wire termination only; it should not be used to seat terminals onto the pc board.



Wire Size Range AWG	Wire Size Range mm²	Color Code on Tool Shaft	For use with Terminal Part No.	Wire Insertion Tool Part Nos.
22-18	0.4-0.8	Yellow	552699-1, 552699-2 552699-4, 552699-5	552714-1
24-18	0.2-0.8	Red	1742253-1 and 1742253-2	552714-2
28-24	0.08-0.2	White	552699-1, 552699-2 552699-4, 552699-5	552714-3
28-22	0.08-0.4	Blue	1742254-1 and 1742254-2	552714-4
28-26	0.08-0.15	Green	1742255-1 and 1742255-2	552714-5
22-26	0.4-0.15	None	554935-2	231890-1

Cushion Grip

Material and Finish

Elastomer

Part No. 231279-1

Manual Terminal Insertion Kit

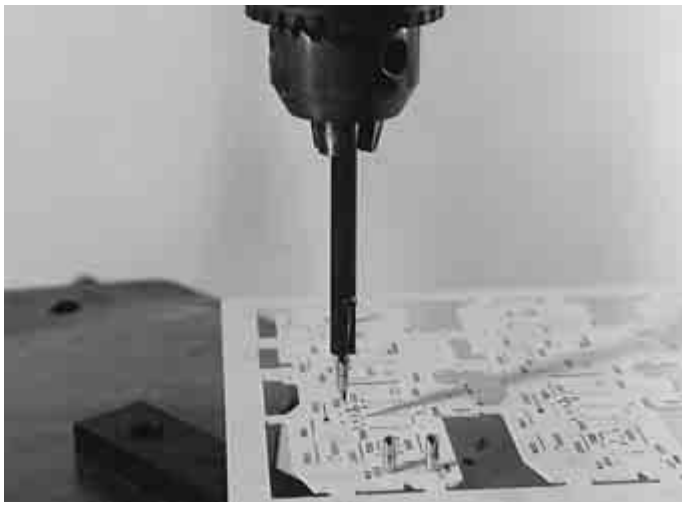
Each insertion kit consists of a ram and pedestal assembly for use in a standard drill press. The ram assembly holds the terminal and provides a firm seat during insertion. It fits into the drill chuck. The pedestal assembly sits on the drill table and supports the pc board during insertion.

Kit No. 230549-3 for .070 [1.78] AMP-BARREL Terminal
Part No. 1742255-1

Kit No. 230549-4 for .090 [2.29] AMP-BARREL Terminal
Part No. 1742254-1

Kit No. 230549-1 for .125 [3.18] AMP-BARREL Terminals
Part Nos. 552699-1 and 552699-4

Kit No. 230549-2 for .156 [3.96] AMP-BARREL Terminal
Part No. 1742253-1



Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

QUADRA-MATE Wire-to-Printed Circuit Board Terminal

Product Facts

- **Redundant wire insulation displacement termination**
- **Built-in strain relief**
- **Accepts 28-24 AWG [0.09-0.2 mm²]**
- **Feed-thru connections allow wiring flexibility**
- **Free-standing**
- **Low board profile (less than ¼" [6.35 mm] high)**
- **Available in loose piece or strip form**
- **Mass termination adaptability**
- **Capable of being reused**
- **Low applied costs**

Applications

- **Electronic games**
- **Computer**
- **Telephone equipment**
- **Business machines**
- **Electronic control equipment**

Technical Documents

Application Specification
114-2051

Product Specification
108-2032

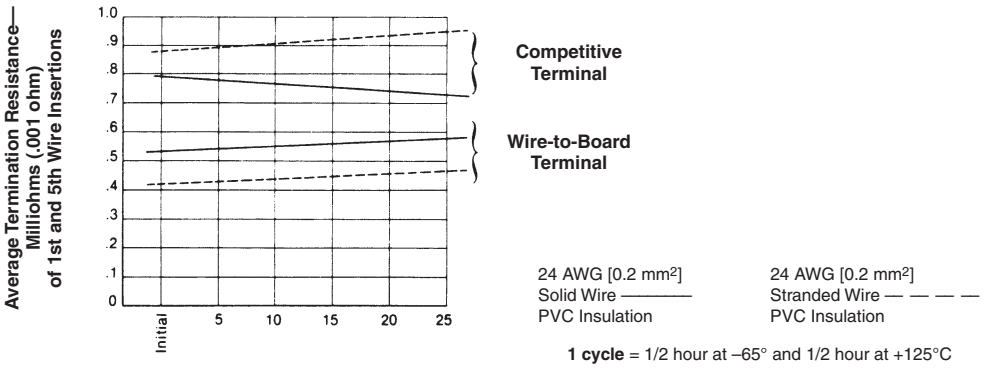
The QUADRA-MATE Wire-to-Printed Circuit Board Terminal is an extension of the MAG-MATE connector program, and is designed to terminate discrete wires to a pc board via insulation displacement slot technology. It is capable of accepting solid or stranded wire and permits wire end or feed-thru terminations. The terminal features four slots for redundant wire terminations and strain relief. The terminals are installed in random positions or in rows on the edge of a pc board either by hand tool, semiautomatic or fully-automatic machines.

The terminal is compact in design and readily adaptable to a wide variety of materials and plating selections, as well as terminating techniques such as daisy chaining, single ending and on-board jumping and programming.

The .100 [2.54] wide terminal has an overall height of approximately .210 [5.33] and occupies less than .120 x .130 [3.05 x 3.3] of board area and accommodates wire sizes 28-24 AWG [0.09-0.2 mm²] (see table).

The terminals are supplied in both loose piece and strip form and are easily assembled to the pc board in conjunction with on-board components prior to wave soldering. With the terminal being an integral part of the board, insertion of the unstripped wire into the four insulation displacement slots is accomplished by use of a simple hand tool (see table).

Thermal Shock Data for Wire-to-Board Terminal



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QUADRA-MATE Wire-to-Printed Circuit Board Terminal (Continued)

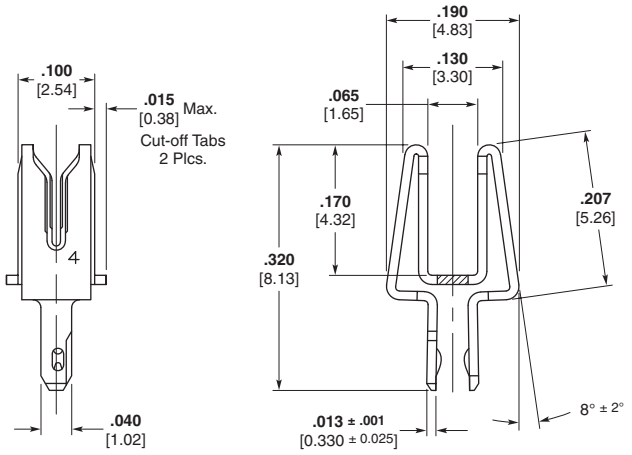
Typical Assembly

Material and Finish

Terminal – Brass, tin plated over copper underplate

Other plating and terminal materials available. Contact Tyco Electronics.

Max. Ins. Dia. — .060 [1.52]



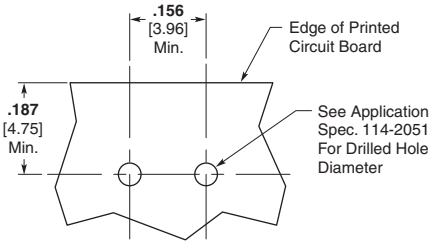
Wire Size (AWG) over mm²			Part Numbers		
7-Strand	Solid	Fused	Loose Piece	Strip	Wire to Term. Hand Tool
24 0.2	**24-26** 0.2-0.13	**26** 0.13	62977-1	63007-1	274377-1 (Heavy Duty)
26 0.14	**26-28** 0.13-0.08	**28** 0.09	63024-1*	63003-1*	
28 0.09	**28** 0.08	**28** 0.09	63025-1*	63004-1*	

Semiautomatic insertion of strip parts to pc board is accomplished using mini-insertion head, Part No. 803371-1 in "U" frame applicator, Part No. 691679-1. For more sophisticated application equipment including cable makers and C.N.C. machines, contact Tyco Electronics.

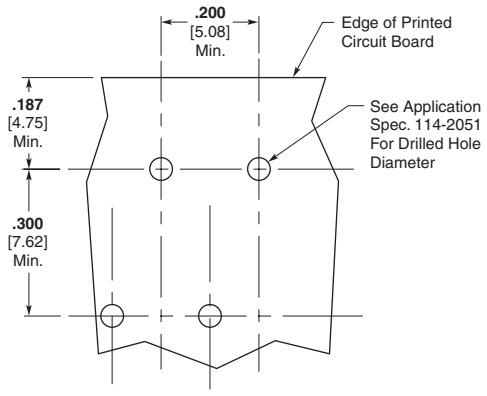
* Available upon request, contact Tyco Electronics.

Recommended PC Board Applications

Note: Wire slots are designed to terminate wire sizes and types with polyvinyl chloride (PVC) insulation, Class 12B. For other wire sizes and insulation types, contact Tyco Electronics for application approval.



Single Line Applications



High Density Applications

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Printed Circuit Board Disconnects

Product Facts

- **Quick connect or disconnect**
- **Automatic or semiautomatic application of strip form receptacles to wire**
- **Receptacles for wire size range 28 AWG [0.08] thru 17 AWG [1.0] and tinsel wire**
- **Automatic or semiautomatic insertion of strip form pins to printed circuit boards**
- **Solid or formed pins, single- or double-sided printed circuit board capability**
- **Choice of materials and platings**

Technical Documents

Product Specification

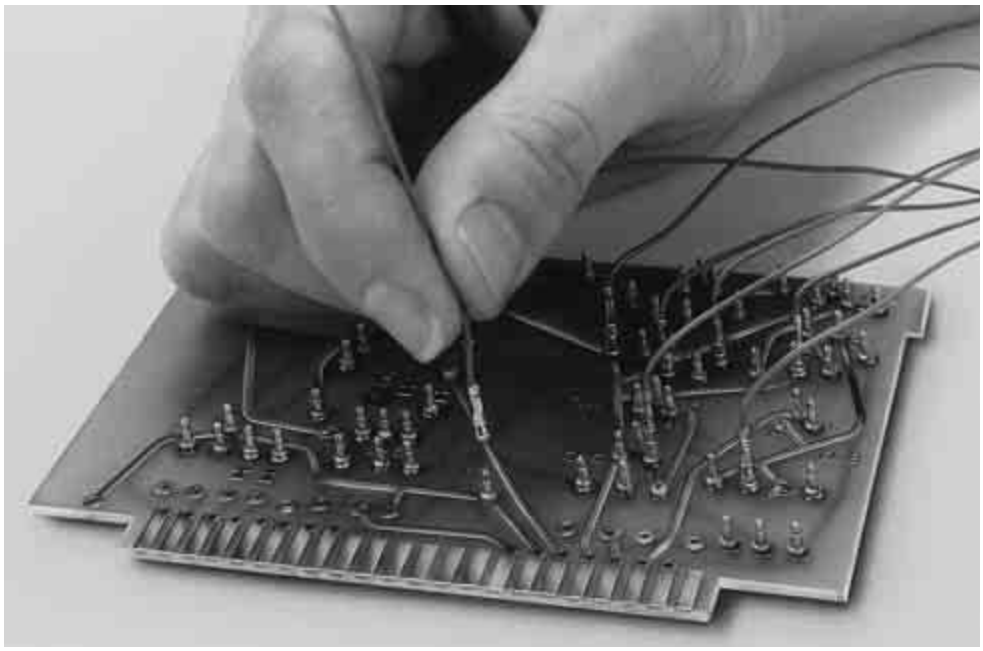
108-1025
108-1059

Application Specification

114-1008

Instruction Sheets

408-7850
408-7951
408-7963
408-7698
408-7850
408-7377
408-7345



Tyco Electronics printed circuit disconnect embodies the dual features of automation and the ability to make quick wiring changes. The special formed pins, available in .058 [1.47] and .093 [2.36] diameters, can be inserted in a printed circuit board quickly and reliably by fully automatic or semiautomatic machinery. The solid pin family, in .058 [1.47] diameter, is attached manually; its knurled edge retains it mechanically in the board until soldering is complete. All pins must be soldered to insure mechanical and electrical reliability. Pins may be used for either single or double-sided pc boards. The receptacles are applied quickly and efficiently to wire using semiautomatic AMP-O-LECTRIC or fully automatic AMPOMATOR machines.

All receptacles feature a precision wire crimp with an insulation crimp for high mechanical strength. A variety of wire and insulation ranges are available as listed. The combination of the pin and receptacle enables users to bring a variety of wires to a printed circuit board and offers the capability of a quick connect or disconnect. The product is ideal for use in prototype and production applications, particularly where wiring changes or rapid pc board interconnections are required. Specific users include radio, television, test equipment, computer and business machine industries.

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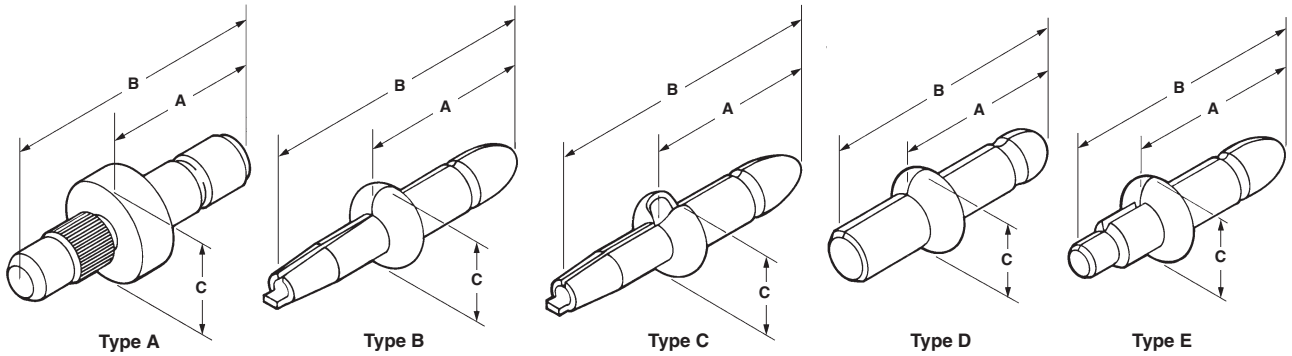
Printed Circuit Board Disconnects (Continued)



.058 [1.47] Diameter Solid Pins

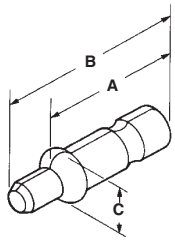
Type	Hole Diameter	Pc Board Thickness	Dimensions A	Dimensions B	Dimensions C	Material and Finish	Part Nos. Loose Piece
A	**.062-.059** 1.57-1.50	**.125** 3.18	**.195** 4.95	**.385** 9.78	**.110** 2.79	Brass, Tin	3-60753-2
A	**.062-.059** 1.57-1.50	**.0312** 0.79	**.195** 4.95	**.260** 6.60	**.110** 2.79	Brass, Tin	3-60839-1

.058 [1.47] Diameter Formed Pins

Type	Hole Diameter	Pc Board Thickness	Dimensions A	Dimensions B	Dimensions C	Material and Finish	Part Nos. Strip Form	Part Nos. Loose Piece[1]	Insertion Head
B	**.050-.046** 1.27-1.17	**.063 or .094** 1.60 or 2.39	**.210** 5.33	**.360** 9.14	**.095** 2.41	Phos. Brz., Pre-Tin	60802-2	60803-2	904554-1
						Phos. Brz., Gold[2]	3-60802-1	3-60803-1	904554-1
B	**.062-.058** 1.57-1.47	**.063 or .094** 1.60 or 2.39	**.210** 5.33	**.360** 9.14	**.095** 2.41	Phos. Brz., Pre-Tin	60809-1	60874-1	904554-1
						Phos. Brz., Gold[2]	3-60809-2	3-60874-2	904554-1
						Phos. Brz., Tin	60809-4	—	904554-1
B	**.070-.066** 1.78-1.68	**.063 or .094** 1.60 or 2.39	**.210** 5.33	**.360** 9.14	**.095** 2.41	Phos. Brz., Pre-Tin	60813-1	61018-1	904554-1
C	**.050-.046** 1.27-1.17	**.063 or .094** 1.60 or 2.39	**.210** 5.33	**.360** 9.14	**.095** 2.41	Phos. Brz., Gold[3]	61038-1	61067-1	904554-1
D	**.073-.067** 1.85-1.70	**.063** 1.60	**.210** 5.33	**.310** 7.87	**.095** 2.41	Phos. Brz., Pre-Tin	60824-1	61097-1	904554-2
						Phos. Brz., Gold[2]	3-60824-2	3-61097-2	904554-2
E	**.050-.046** 1.27-1.17	**.063** 1.60	**.210** 5.33	**.310** 7.87	**.095** 2.41	Phos. Brz., Gold[3]	640967-2	—	904554-2
E	**.061-.055** 1.55-1.40	**.047** 1.19	**.210** 5.33	**.310** 7.87	**.095** 2.41	Phos. Brz., Pre-Tin	641944-1	—	—
E	**.061-.055** 1.55-1.40	**.063** 1.60	**.210** 5.33	**.310** 7.87	**.095** 2.41	Phos. Brz., Pre-Tin	60973-1	640394-1	904554-2
						Phos. Brz., Gold[2]	3-60973-2	—	904554-2

[1]Use Insertion Tool Part No. 689141-1 for Loose Piece Pins
[2].000030 [0.00076] gold plated
[3].000030 [0.00076] gold plated in disconnect area
Note: All above formed pins are made from .010 [0.25] thick material

.093 [2.36] Diameter Formed Pins



Hole Diameter	Pc Board Thickness	Dimensions A	Dimensions B	Dimensions C	Material and Finish	Part Nos. Strip Form	Part Nos. Loose Piece	Insertion Machine
.073-.067 1.85-1.70	**.063** 1.60	**.305** 7.75	**.410** 10.41	**.115** 2.92	Phos. Brz., Pre-Tin	61137-1	350491-1	904558-1

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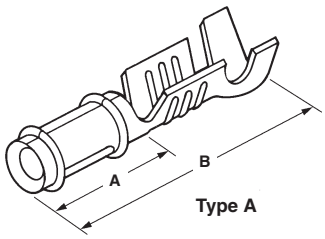
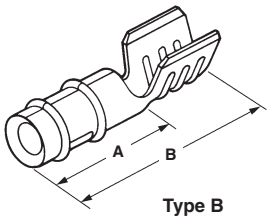
Japan: 81-44-844-8013
UK: 44-8706-080-208

Printed Circuit Board Disconnects (Continued)

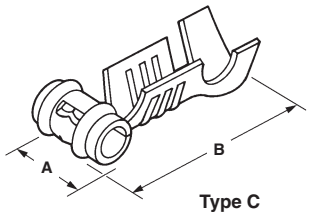
Receptacles



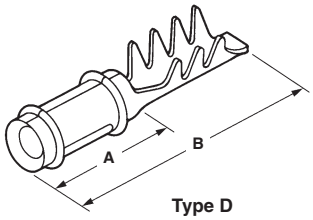
Type A



Type B



Type C



Type D

.058 [1.47] Diameter

Type	Wire Size Range AWG	Wire Size Range mm²	Insulation Diameter	Dimensions A	Dimensions B	Material and Finish	Part Nos. Strip Form[3]	Part Nos. Loose Piece	Part Nos. Hand Tool	Part Nos. Insertion[5] Head
A	28-26	0.08-0.15	**.035-.045** 0.89-1.14	**.155** 3.94	**.380** 9.65	Phos. Brz., Pre-Tin	60354-7	—	—	452383-1
A	26-22	0.15-0.4	**.035-.065** 0.89-1.65	**.155** 3.94	**.380** 9.65	Phos. Brz., Gold[1]	60888-2	60983-1	90131-4	
						Phos. Brz., Pre-Tin	60888-1	60983-2		
						Be. Cu., Tin	60888-3	60983-4		
						Be. Cu., Gold[1]	60888-4	60983-3		
A	26-20	0.15-0.6	**.040-.110** 1.02-2.79	**.155** 3.94	**.395** 10.03	Be. Cu., Tin	350196-1[4]	—	—	—
A	24-20	0.2-0.6	**.045-.070** 1.14-1.78	**.155** 3.94	**.380** 9.65	Phos. Brz., Pre-Tin	60598-3	60789-1	91507-1	452383-1
						Be. Cu., Tin	60598-4	60789-2		
						Phos. Brz., Gold	60598-7	60789-3		
						Be. Cu., Gold[2]	60598-9	60789-8		
A	24-20	0.2-0.6	**.060-.090** 1.52-2.29	**.155** 3.94	**.395** 10.03	Phos. Brz., Pre-Tin	60940-1	60986-1	90221-2	—
						Be. Cu., Tin	60940-2	—		
B	22-17	0.4-1.0	—	**.155** 3.94	**.300** 7.62	Be. Cu., Tin	640259-1	640024-1	90314-1	453850-1
C	26-22	0.15-0.4	**.035-.065** 0.89-1.65	**.160** 4.06	**.330** 8.38	Be. Cu., Gold[2]	61513-1	350189-2	90131-4	453850-1
						Phos. Brz., Pre-Tin	61513-2	350189-1		
C	24-20	0.2-0.6	**.045-.070** 1.14-1.78	**.160** 4.06	**.330** 8.38	Be. Cu., Gold[2]	61119-1	61276-1	91507-1	
						Phos. Brz., Pre-Tin	61119-2	61276-2		
						Be. Cu., Tin	61119-3	61276-3		
D	Tinsel Wire		**.030-.040** 0.76-1.02	**.155** 3.94	**.380** 9.65	Phos. Brz., Pre-Tin	350393-1	—	—	

.093 [2.36] Diameter

Type	Wire Size Range AWG	Wire Size Range mm²	Insulation Diameter	Dimensions A	Dimensions B	Material and Finish	Part Nos. Strip Form[3]	Part Nos. Loose Piece	Part Nos. Hand Tool	Part Nos. Insertion Head
A	28-26	0.08-0.15	**.032-.057** 0.81-1.45	**.255** 6.48	**.545** 13.84	Phos. Brz., Tin	35022-1	—	—	452383-1
A	22-18	0.4-0.8	**.060-.110** 1.52-2.79	**.255** 6.48	**.550** 13.97	Phos. Brz., Tin	61291-1	61260-1	90135-2	452383-3
B	22-18	0.3-0.9	—	**.255** 6.48	**.435** 11.05	Phos. Brz., Tin	350015-2	—	—	435850-1

[1].000030 [0.00076] gold plated
[2].000015 [0.00038] gold plated
[3]Machine applied; applicator required. For machine and applicator part numbers, call the Tooling Assistance Center at 1-800-722-1111.
[4]These receptacles have an overlap insulation crimp.
[5]Use the listed insertion head with either the Comp-U-Sert or II Insertion Machine No. 122300-1 or MIS Bench Machine No. 66280-4.
Note: Part Nos. 350221-1, 61291-1 and 61260-1 are made from .012 [0.30] thick material. All other receptacles are made from .010 [0.25] thick material.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

Catalog 82159
Revised 12-07

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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: 44-8706-080-208

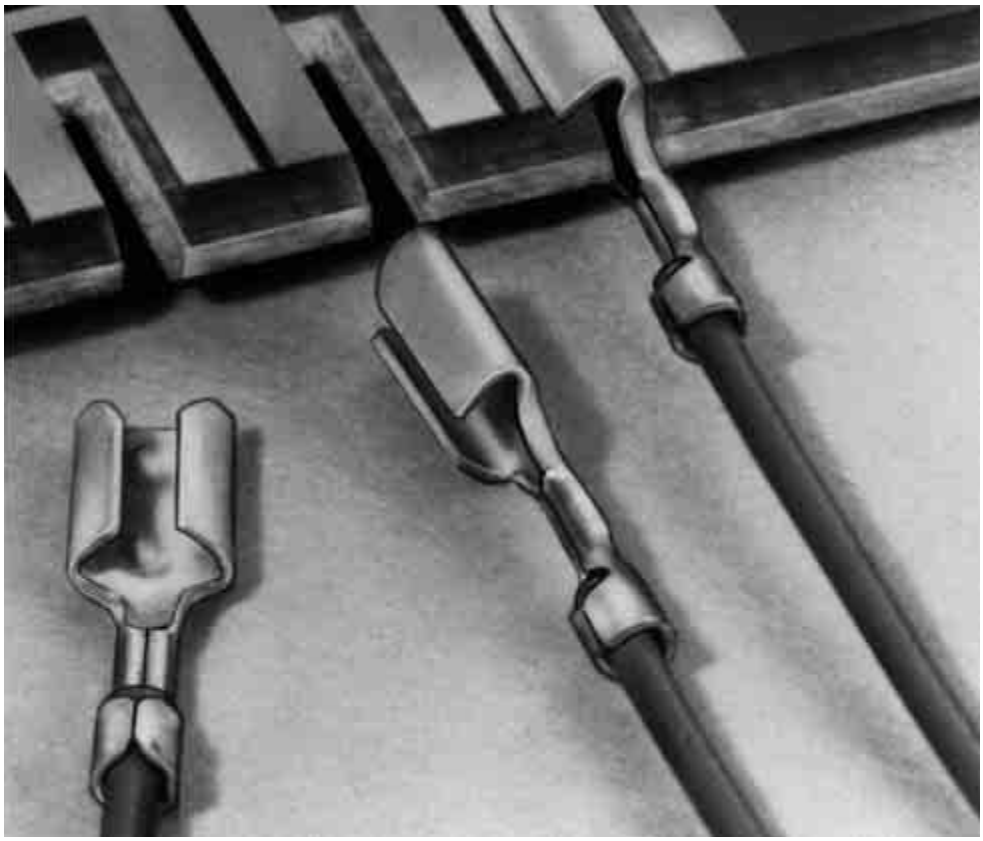
AMP EDGE Single Lead Printed Circuit Terminals

Product Facts

- **Friction fitting, quick connect/disconnects—no insertion nor extraction tools required**
- **Excellent vibration and shock resistance**
- **Accepts wire size range 32-16 AWG [0.03-1.4 mm²]**
- **Wide choice of materials and finishes**
- **High-speed machine terminated for volume production at lowest installed cost**

Technical Documents

Product Specification
108-1011 AMP EDGE Terminals



AMP EDGE Terminals are quick connect/disconnect devices that adjust securely, through friction fitting, to machine slots in the type of board for which they are designed. Friction fitting not only precleans the contact areas, but also provides excellent vibration and shock resistance even under heavy stresses. Firm wire insulation support is a companion factor for positive retention in the board. These terminals, wholly aerated to eliminate moisture traps, may be applied anywhere on the perimeter of the board. They eliminate the need for eyelets and plated-through holes on two-sided boards and can be used back-to-back for commoning circuits.

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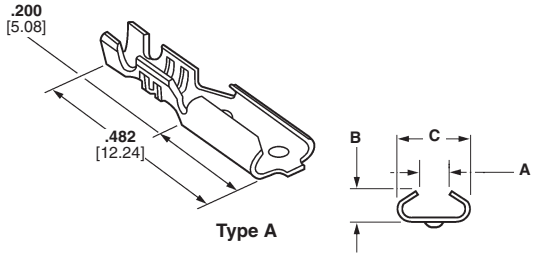
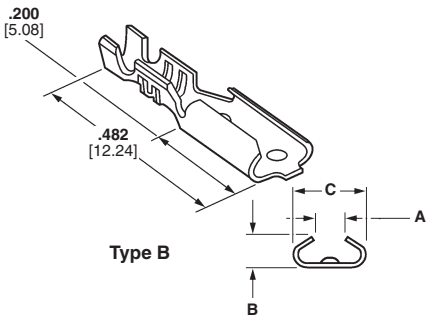
AMP EDGE Single Lead Printed Circuit Terminals (Continued)

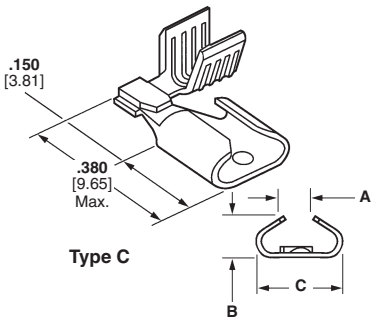
Related Product Data
Application Tooling — pages 36-38



Type A



Type B



Type C

Type	Wire Size Range AWG	Wire Size Range mm²	Material	Finish	Stock Thk.	Ins. Dia.	Board Thk.	Dimensions A	Dimensions B	Dimensions C	Strip Form Part Nos.[7]
A	32-24	0.03-0.2	Phos. Brz.	Tin	**.010** 0.25	**.020-.050** 0.51-1.27	**.062** 1.57	**.045** 1.14	**.080** 2.03	**.153** 3.89	61389-2[1]
A	30-22	0.05-0.4	Phos. Brz.	Tin	**.010** 0.25	**.075** 1.91	**.062** 1.57	**.046** 1.17	**.080** 2.03	**.153** 3.89	61455-2[1]
A	22-20	0.4-0.6	Phos. Brz.	Tin	**.010** 0.25	**.075** 1.91	**.062** 1.57	**.050** 1.27	**.080** 2.03	**.153** 3.89	42263-7[1]
B	22-18	0.4-0.8	Phos. Brz.	Tin	**.010** 0.25	**.080-.100** 2.03-2.54	**.062** 1.57	**.050** 1.27	**.080** 2.03	**.153** 3.89	61561-2[2]
B	22-18	0.4-0.8	Brass	Tin	**.016** 0.41	**.080-.100** 2.03-2.54	**.062** 1.57	**.052** 1.32	**.088** 2.24	**.160** 4.06	60156-2[3]
B	22-18	0.4-0.8	Brass	Tin	**.016** 0.41	**.080-.100** 2.03-2.54	**.062** 1.57	**.056** 1.42	**.088** 2.24	**.160** 4.06	60704-1[4]
C	22-16	0.4-1.4	Brass	Tin	**.012** 0.30	— —	**.062** 1.57	**.046** 1.17	**.070** 1.78	**.200** 5.08	61782-1[5]
C	22-16	0.4-1.4	Brass	Tin	**.012** 0.30	— —	**.062** 1.57	**.046** 1.17	**.070** 1.78	**.200** 5.08	61782-2[6]

[1](2) dimples outside (.010 high) [0.25]
[2](2) dimples inside (.020 high) [0.51]
[3](2) dimples inside (.014 high) [0.36]
[4](2) dimples inside (.005 high) [0.13]
[5](2) dimples inside (.023 high) [0.58]
[6](2) dimples inside (.023 high) [0.58], reverse reeled
[7]Machine applied applicator required. For machine and applicator part numbers, call the Tooling Assistance Center at 1-800-722-1111.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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Revised 12-07

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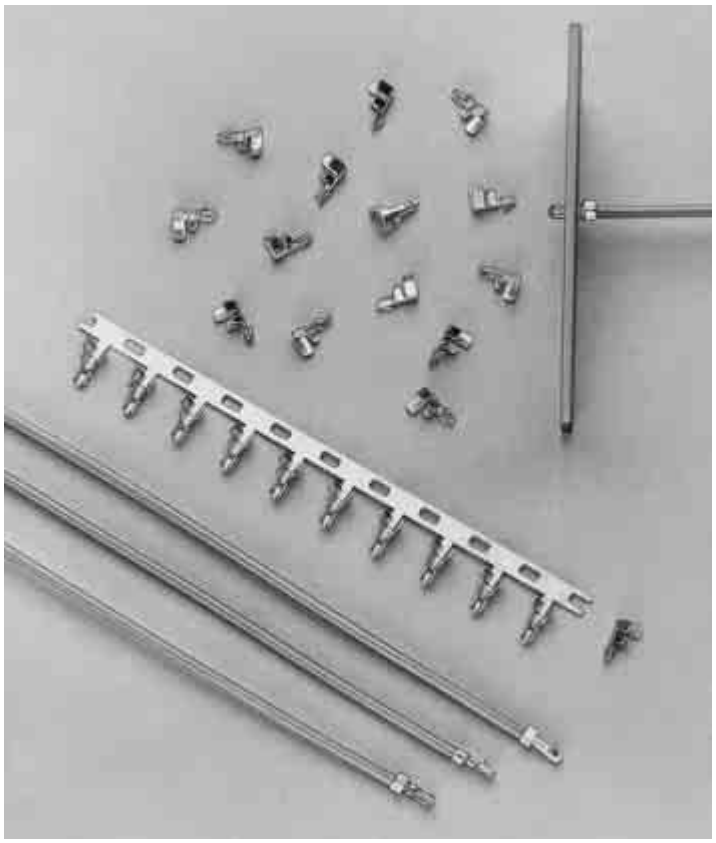
South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

Miniature AMP-IN Terminals

Product Facts

- **Eliminates manual preparation of wires prior to soldering into pc boards**
- **Low applied cost**
- **Total height above pc board is less than most other components**
- **Available for 26-10 AWG, [0.15-5.5 mm²]**
- **Terminal locking lance holds wire in pc board for flow soldering**
- **Design allows both wire and terminal to be soldered and assures proper solder flow**
- **Insulation support provides strain relief for wire and protection of solder joint**
- **Type A terminals will provide both a positive board stop and positive insulation stop**
- **Type E terminal offers minimum below pc board length**



The miniature AMP-IN Terminal is designed not as an electrical terminal but as a mechanical holding device to enhance soldering of hookup wires to printed circuit boards. The combination of terminal and application tooling eliminates costly manual preparation of wires prior to soldering, and positions the wire to achieve reliable solder joints. Movement of the wire during soldering is restricted, providing for proper solder flow.

Technical Documents

Product Specification
108-1081

Application Specification
114-1016

Material and Finish

008 phosphor bronze, Pre-tin plated
Pc Board Thickness — .062 [1.57]

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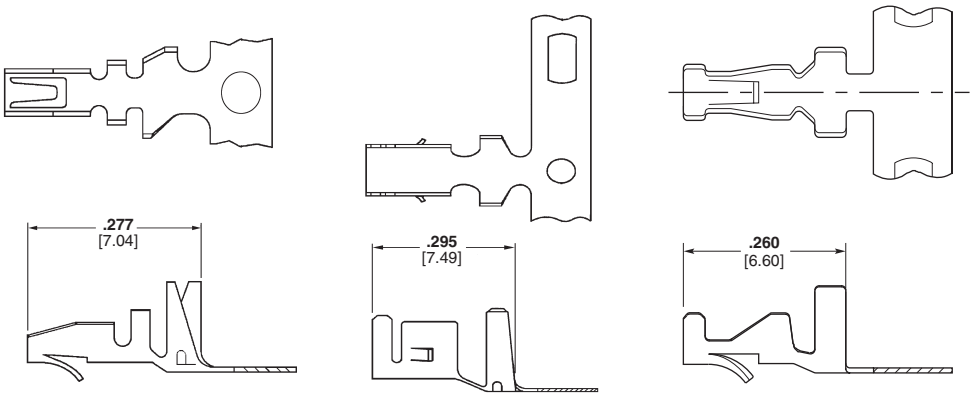
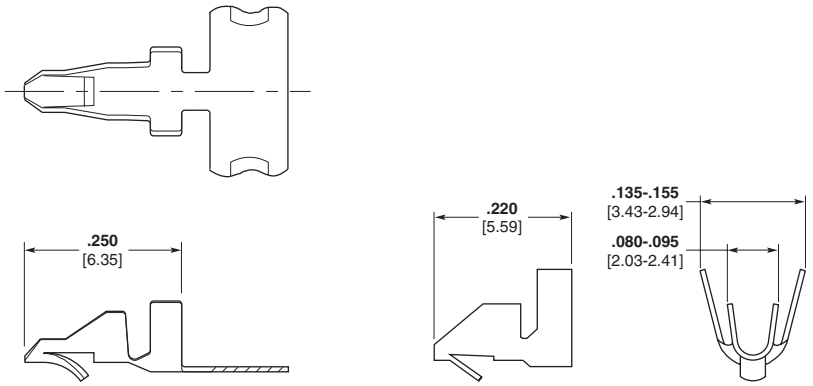
Miniature AMP-IN Terminals (Continued)



Type A Type B Type C



Type D Type E

Type	Wire Size Range		Insulation Diameter	Board Hole Diameter	Extension Below Board (Ref.)	Strip Form Terminal Part Nos.[3]
	AWG	mm²				
A	22-18	0.3-0.9	**.060-.110** 1.52-2.79	**.072**± .003 1.83±.0.08	**.100** 2.54	3-794121-1
	26-22	0.12-0.4	**.040-.110** 1.02-2.79	**.055**± .004 1.40±0.10	**.100** 2.54	3-794122-1
B	18-14	0.8-2.0	**.090-.150** 2.29-3.81	**.125**± .003 3.18±0.08	**.125** 3.18	3-770060-1
	12	3.0	**.090-.150** 2.29-3.81	**.125**± .003 3.18±0.08	**.125** 3.18	3-794013-1
	10	5.5	**.200** 5.08	**.150** 3.81 Ref.	**.125** 3.18	3-794037-1
C	22-18	0.4-0.8	**.060-.110** 1.52-2.79	**.073**± .004 1.85±.0.10	**.100** 2.54	3-640311-1
	26-22	0.15-0.4	**.040-.100** 1.02-2.54	**.055**± .004 1.40±0.10	**.100** 2.54	3-640401-1
D	22-18	0.4-0.8	**.060-.110** 1.52-2.79	**.073**± .004 1.85±.0.10	**.125** 3.18	3-350566-1
	26-22	0.15-0.4	**.060-.100** 1.52-2.54	**.055**± .004 1.40±0.10	**.135** 3.43	3-640108-1
	26-22	0.15-0.4	**.040-.070** 1.02-1.78	**.125**± .003 3.18±0.08	**.125** 3.18	3-640663-1
E	22-18	0.8-0.4	**.060-.110** 1.52-2.79	**.072**± .004 1.83±.0.10	**.090** 2.29	3-770565-2

Notes: 1. Higher tensile available with nose crimp type C.
2. Not available in loose piece.
3. No hand tools available.
4. Machine applied applicator required. For machine and applicator part numbers, call the Tooling Assistance Center at 1-800-722-1111.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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Low Profile Miniature AMP-IN Connectors

Product Facts

- **Connector housing provides gang insertion into pc board**
- **Housing insulates and provides short-circuit protection between contacts**
- **Housings are available in 2 to 15 positions for .079 [2.01] and 2 to 20 for .098 [2.49] centerline spacing**
- **Low profile design—.200 [5.08]**
- **Contacts available for 30-26 AWG [0.05-0.15 mm²] and 26-22 AWG [0.15-0.4 mm²]**

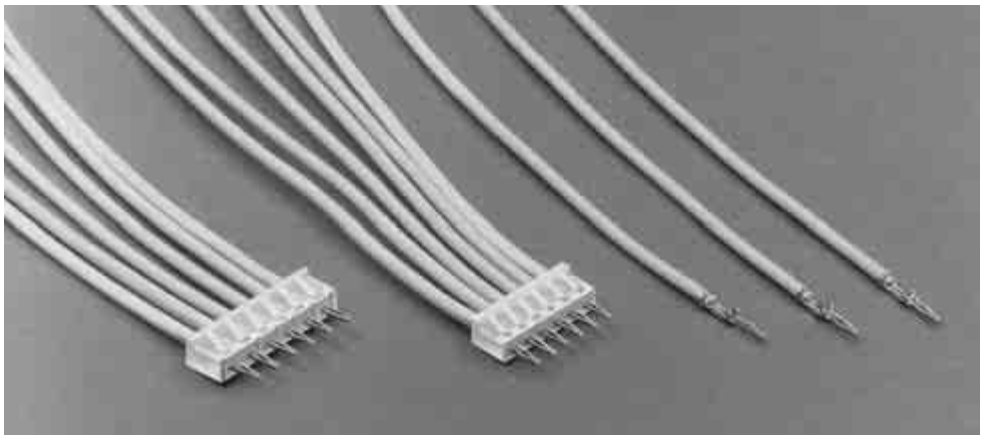
Technical Documents

Product Specification—
108-5163

Application Specification—
114-5062

Material and Finish

Housing—Nylon, 94V-0 rated
Contact—See chart
Pc Board Thickness Range—
.047-.062 [1.19-1.57]



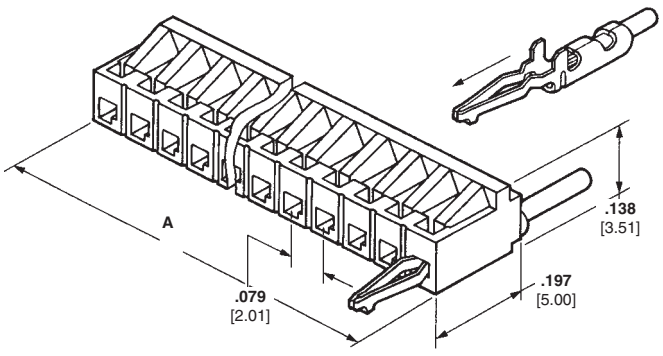
Low Profile Miniature AMP-IN Connectors provide an easy means of gang inserting leads into printed circuit boards. The design of the crimp snap-in contact aids in locating the pc board hole and inserting the contact into that hole.

The low profile housing allows compactness of leads while providing insulation between them to prevent short-circuits. Housings are available in 2 to 15 positions for .079 [2.01] centerline spacing and 2 to 20 positions for .098 [2.49] centerline spacing.

Contacts come in 26-22 AWG [0.15-0.4 mm²] and 30-26 AWG [0.05-0.15 mm²] with insulation support crimp to provide strain relief. They accommodate a board thickness of .047 [1.19] to .062 [1.57].

Wire Size Range AWG	Wire Size Range mm²	Insulation Diameter	Hole Diameter	Material and Finish	Contact Part No. Strip Form[3]	Contact Part No. Loose Piece	Hand Tool Part Nos.
30-26	0.05-0.15	**.043-.055** 1.09-1.40	**.031** 0.79	Brass, Pre-Tin	172781-1	172797-1	755405-1
			.039 0.99	Brass, Tin	172781-4	172797-4	
26-22	0.15-0.4	**.055-.059** 1.40-1.50	**.031** 0.79	Brass, Tin	172782-5	—	755405-1
			.039 0.99	Brass, Tin	172782-7	—	

Notes: 1. Refer to pages 36-38 for application tooling.
2. Use Extraction Tool Part No. 753760-1.
3. Machine applied applicator required. For machine and applicator part numbers, call the Tooling Assistance Center at 1-800-722-1111.



No. of Positions	.079 [2.01] Centerline A	.079 [2.01] Centerline Part Nos.	.098 [2.49] Centerline A	.098 [2.49] Centerline Part Nos.
2	**.189** 4.80	172890-2	**.236** 5.99	172520-2
3	**.268** 6.81	172890-3	**.335** 8.51	172520-3
4	**.346** 8.79	172890-4	**.433** 11.00	172520-4
5	**.425** 10.80	172890-5	**.532** 13.51	172520-5
6	**.504** 12.80	172890-6	**.630** 16.00	172520-6
7	**.583** 14.81	172890-7	**.729** 18.52	172520-7
8	**.661** 16.79	172890-8	**.827** 21.01	172520-8
9	**.741** 18.82	172890-9	**.926** 23.52	172520-9
10	**.820** 20.83	1-172890-0	**1.024** 26.01	1-172520-0
11	—	—	**1.123** 28.52	1-172520-1
12	**.977** 24.82	1-172890-2	**1.221** 31.01	1-172520-2
13	—	—	**1.320** 33.53	1-172520-3
14	—	—	**1.418** 36.02	1-172520-4
15	**1.214** 30.84	1-172890-5	**1.517** 38.53	1-172520-5
20	—	—	**2.010** 51.05	2-172520-0

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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Test Probe Receptacles

Product Facts

- **Leg mounts are "V" shaped to promote solder wicking and consistent fillets**
- **Receptacle is recessed in housing to prevent shorting or flashover**
- **Probe may be inserted in either end of test probe receptacle except Type C**
- **Housing color is molded, not dyed**
- **Accepts .080±.001 [2.03±0.025] probes**

Material and Finish

Housing—Nylon type 6/6

Contact—Beryllium copper

Receptacle and Legs—Brass, ASTM B36, Alloy 6

Contact Plating—See table below

Technical Documents

Product Specification—
108-1082 Receptacle, Test Probe

Performance Characteristics

Insulation Resistance—
10,000 megohms

Retention Value—
16oz. [4.45 N]

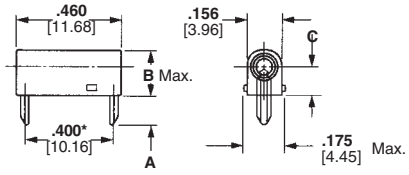
Operating Temperature—
55°C to 85°C [131°F to 185°F]

The Tyco Electronics line of Test Probe Receptacles is designed to pro-vide low-cost test probe capability of circuits on pc boards, with-out interruption of operating currents, with precise reliability.

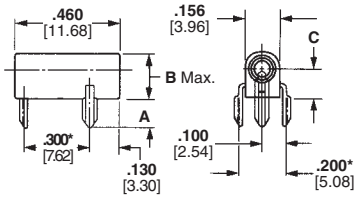
Receptacles are available with either two or three mounting legs. Two legs of a tri-leg mount are not part of the live testing circuit. Receptacles are also available either in the standard height, or in a taller height (to permit probing at any position on the board where clearance to probe is necessary). The three-leg mount gives maximum stability. The two-leg mount yields maximum density.

The present line of test probe receptacles fits a range of board thicknesses from 1/32 to 1/8 depending on the length of the receptacle legs. The legs mount in .052 [1.32] diameter holes.

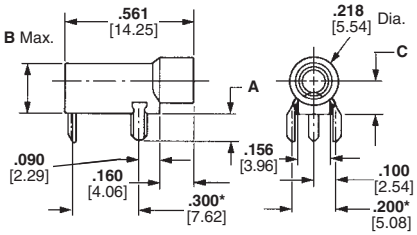
Type A



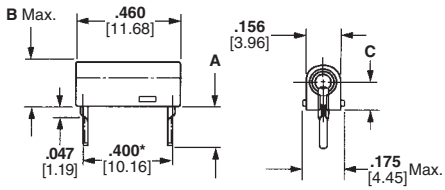
Type B



Type C



Type D



*Mounting hole location for .050-.054 [1.27-1.37] dia. holes.

Type	Contact Finish	Dimensions A	Dimensions B	Dimensions C	Housing Colors	Part Nos.*
A	Bright Tin	**.130** 3.30	**.230** 5.84	**.138** 3.51	See Table	1-521799-x
	Silver	**.130** 3.30	**.230** 5.84	**.138** 3.51	See Table	2-582118-x
	Gold	**.130** 3.30	**.230** 5.84	**.138** 3.51	See Table	3-582118-x
	Gold	**.130** 3.30	**.230** 5.84	**.138** 3.51	Natural	6-582118-9
	Bright Tin	**.130** 3.30	**.467** 11.86	**.375** 9.53	See Table	1-521800-x
	Gold	**.130** 3.30	**.467** 11.86	**.375** 9.53	See Table	3-582340-x
B	Gold	**.130** 3.30	**.230** 5.84	**.138** 3.51	See Table	3-582119-x
	Gold	**.130** 3.30	**.467** 11.86	**.375** 9.53	See Table	3-582120-x
C	Gold	**.130** 3.30	**.230** 5.84	**.138** 3.51	See Table	350180-x
D	Gold	**.180** 4.57	**.230** 5.84	**.138** 3.51	See Table	1-380736-x
	Bright Tin	**.180** 4.57	**.230** 5.84	**.138** 3.51	Green	3-521801-5

*Part numbers with a numerical suffix are only for the specific color listed in the chart.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

Color Suffix Table

Suffix Dash Number	Housing Color
-0	Black
-1	Brown
-2	Red
-3	Orange
-4	Yellow
-5	Green
-6	Blue
-7	Violet
-8	Gray
-9	White

Catalog 82159
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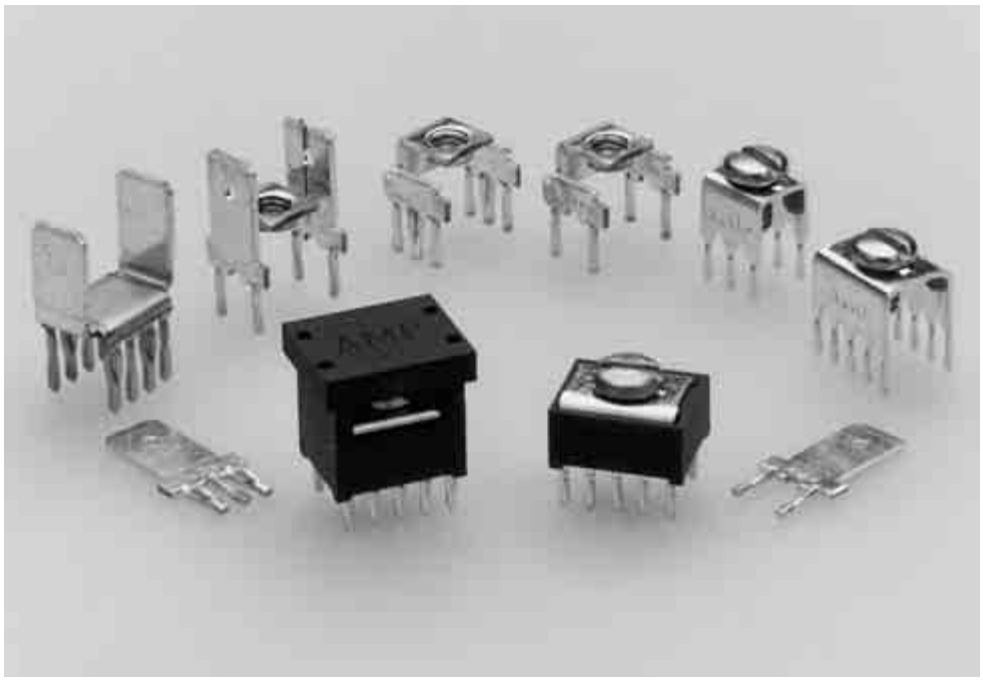
Japan: 81-44-844-8013
UK: 44-8706-080-208

Power Taps

Product Facts

- **ACTION PIN contacts eliminate soldering**
- **Provides high current, separable connection to pc board traces**
- **Wire-to-board connection using common terminals**
- **All metal-to-metal assembly for long-term integrity**
- **Standard DIP outlines (.300 x .100 [7.62 x 2.54]), 10 positions, and .250 x .125 [6.35 x 3.18], 6 and 10 positions, plus high current versions on .400 x .200 [10.16 x 5.08] footprint in 4 and 6 positions, .300 x .100 [7.62 x 2.54] in 8 positions, and both 2 and 3 position in-line .100 [2.54] tab taps**
- **Low resistance interface**
- **Internally threaded tap to secure screw to terminal**
- **Anti-rotational embossments hold wire and terminal in place**
- **Standard Power Taps rated at 2.5 amps per pin— 6 position 15 amps, 10 position 25 amps current carrying capability**
- **High Current Power Taps rated at up to 5 amps per pin— 2 position 10 amps, 3 position 15 amps, 4 and 6 position 20 amps and 8 position 40 amps**



Tyco Electronics Power Taps are designed for the growing need for power to printed circuit board applications required in today's electronic industry. The taps provide a high current, separable connection to a pc board. Pin configuration is of the standard DIP outline with .300 x .100 [7.62 x 2.54] or .250 x .125 [6.35 x 3.18] for the Standard versions, plus .400 x .200 [10.16 x 5.08], .300 x .100 [7.62 x 2.54] and in-line spacing for the High Current versions.

ACTION PIN contacts provide a low resistance interface with tin plated-through holes in the pc board, thereby eliminating the need for soldering.

The variety of available power taps allow for various installation schemes. The Uninsulated Tap and Low Profile Tap can be used in bus bar pattern. The High Profile and Low Profile Taps offer insulation protection from other components. The High Current versions provide a greater power density option with current ratings from 10 amps on the 2 position in-line .250 [6.35] tab tap up to 40 amps on the 8 position dual .250 [6.35] tab tap.

All Tyco Electronics Power Tap configurations are easily inserted into the pc board with a simple Tyco Electronics or customer supplied tool.

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Standard Power Taps

Standard Insulated Power Tap

Material and Finish

Connector Body and Lid—Nylon, 105°C 94V-0 rated

Contact—Copper alloy, bright tin-lead plated and matte tin plated

Screw—Plated steel

Electrical and Mechanical Characteristics

Resistance—2 milliohms, max. (stud hole to ACTION PIN contact)

Insertion Force—40 lbs. [177.9 N], max. per pin

Retention Force—7 lbs. [31.1 N], min. per pin

Technical Documents

Product Specification

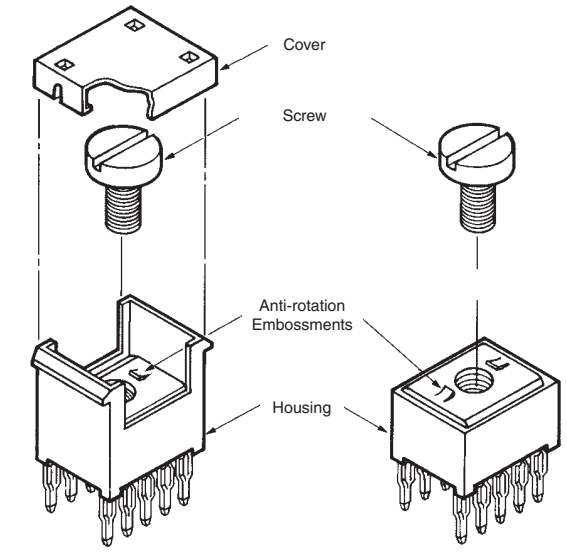
108-11030 Tap, Power Distribution

Application Specification

114-11000 Tap, Power Distribution

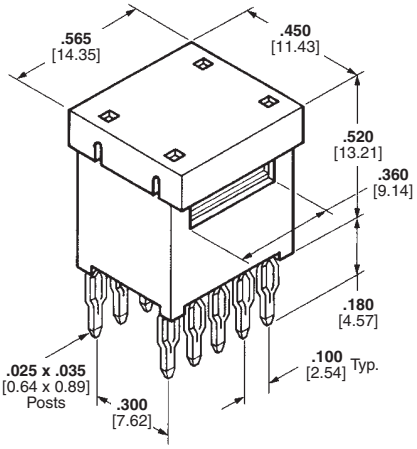
Handbook

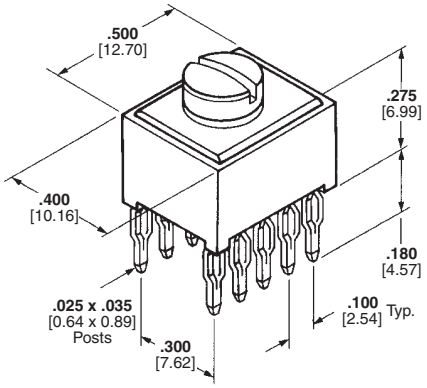
5697 Guide to Application of ACTION PIN Connectors



.300 x .100 [7.62 x 2.54]
High Profile Tap
10 Position

.300 x .100 [7.62 x 2.54]
Low Profile Tap
10 Position





Tap Version	Pcb Thickness	Description	Screw Hole Size	Part Nos.	
				Tin-Lead	Tin
High Profile	**.062-.125** 1.57-3.18	Housing and contact assembled without screw[1]	6-32	55557-3♦	5055557-3
High Profile	**.062-.125** 1.57-3.18	Housing and contact assembled with screw[1,2]	6-32	55557-4♦	5055557-4
Low Profile	**.062-.125** 1.57-3.18	Housing and contact assembled with screw[2]	6-32	55556-4♦	5055556-4
Low Profile	**.062-.125** 1.57-3.18	Housing and contact assembled with screw[2,3]	6-32	55673-2♦	5055673-2
Low Profile	**.062-.125** 1.57-3.18	Housing and contact assembled without screw	6-32	55556-3♦	5055556-3
Low Profile	**.062-.125** 1.57-3.18	Housing and contact assembled without screw	M4	55556-9♦	5055556-9

[1]Cover not assembled
[2]Screw not assembled
[3]No anti-rotational embossments

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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Standard Power Taps (Continued)

Standard Uninsulated Power Taps

Material and Finish

Contact—Copper alloy, post plated bright tin-lead and matte tin plated

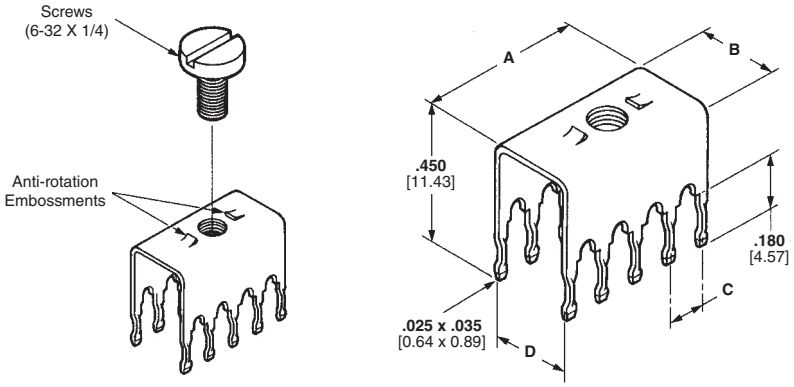
Screw—Stainless steel, passivated

Electrical and Mechanical Characteristics

Resistance—2 milliohms, max. (stud hole to ACTION PIN contact)

Insertion Force—40 lbs. [177.9 N] max. per pin

Retention Force—7 lbs. [31.1 N] min. per pin



Size	Pcb Thickness	Dimensions A	B	C	D	Description	Screw Size	Part Number Tin Lead	Tin
.300 x .100 7.62 x 2.54 10 Position	**.062-.125** 1.57-3.18	**.440** 11.18	**.325** 8.26	**.100** 2.54	**.300** 7.62	Without Screw	6-32	55558-3♦	5055558-3
						With Screw	6-32	55558-4♦	5055558-4
						Without Screw	6-32	55558-7♦ [1]	5055558-7
.250 x .125 6.35 x 3.18 6 Position	**.062-.125** 1.57-3.18	**.320** 8.13	**.275** 6.99	**.125** 3.18	**.250** 6.35	Without Screw	6-32	55323-5♦	5055323-5
						With Screw	6-32	55323-9♦	5055323-9
.250 x .125 6.35 x 3.18 10 Position	**.062-.125** 1.57-3.18	**.570** 14.48	**.275** 6.99	**.125** 3.18	**.250** 6.35	Without Screw	6-32	55323-6♦	5055323-6
						With Screw	6-32	1-55323-0♦	1-5055323-0

[1]No Anti-rotation Embossments

High Current* Power Taps

*Up to 20 amps

Material and Finish

Contact—Phosphor bronze, tin-lead and matte tin plated

Screw—Stainless steel, passivated

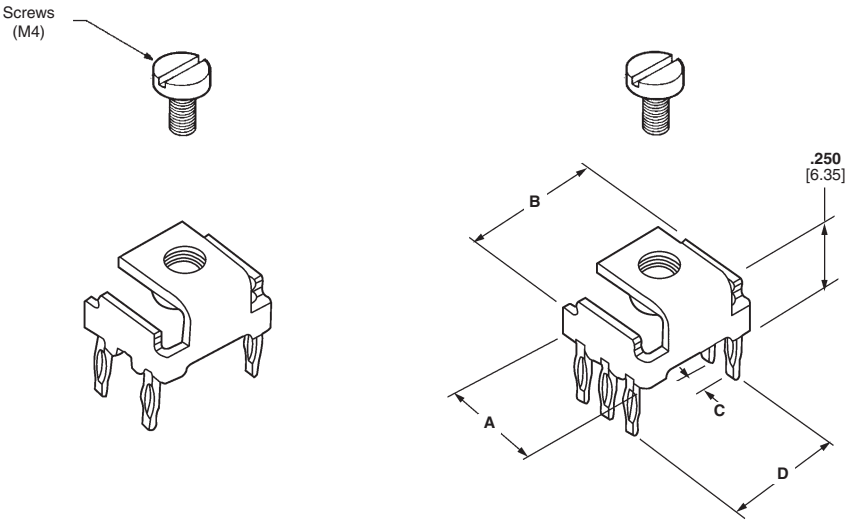
Washer—Stainless steel

Electrical and Mechanical Characteristics

Current Rating—20 amperes max.

Insertion Force—40 lbs. [180 N] max. per pin

Retention Force—7 lbs. [30 N] min. per pin



Size	Pcb Thickness	Dimensions A	B	C	D	Description	Part Number Tin Lead	Tin
4 Position	**.062-.125** 1.57-3.18	**.358** 9.09	**.431** 10.95	**.200** 5.08	**.400** 10.16	With Screw	213815-1♦	5-213815-1
						Without Screw	216906-1♦	—
6 Position	**.062-.125** 1.57-3.18	**.358** 9.09	**.431** 10.95	**.100** 2.54	**.400** 10.16	With Screw	213816-1♦	5-213816-1
						Without Screw	216907-1♦	—

[1]No Anti-rotation Embossments featured on High Current Taps. Therefore, if application requires, use of Bellville lock-washers with a high surface contact area are strongly recommended.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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UK: 44-8706-080-208

High Current* Power Taps

Designed to mate with FASTON and Positive-Lock Receptacles

*Up to 5 amps per pin

Material and Finish

Contact—Phosphor bronze, post plated tin-lead, except as noted in chart

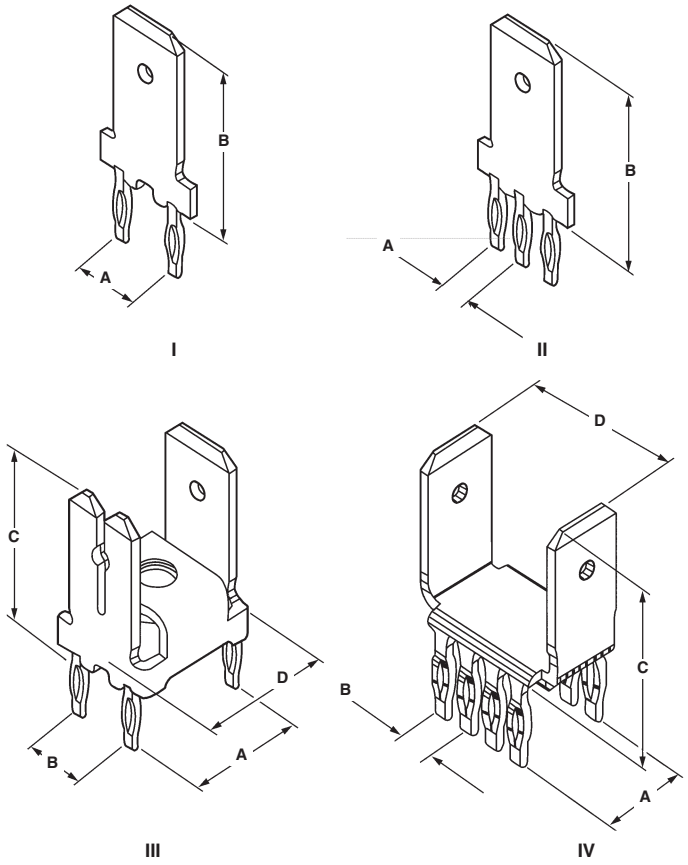
Screw—Stainless steel, passivated

Washer—Stainless steel

Electrical and Mechanical Characteristics

Current Rating—5 amps max. per pin

Insertion Force—40 lbs. [180 N] max. per pin



Style	Pcb Thickness	Dimensions A	B	C	D	Configuration	Description	Part Number	Receptacle Mating
I	**.062 x .125** 1.57 x 3.18	**.200** 5.08	**.531** 13.49	—	—	**.250 x .032** 6.35 x 0.81 Tab	With Hole	216926-1♦	Positive Lock
II	**.062 x .125** 1.57 x 3.18	**.100** 2.54	**.531** 13.49	—	—	**.250 x .032** 6.35 x 0.81 Tab	With Hole	216843-1♦	Positive Lock
III	**.062 x .125** 1.57 x 3.18	**.400** 10.16	**.200** 5.08	**.531** 13.49	**.431** 10.95	1-**.250 x .032** 6.35 x 0.81 Tab 2-**.110 x .032** 2.79 x 0.81 Tab	With Hole Without Washer Without Screw	216905-1♦[1]	Positive Lock
IV	**.125** 3.18	**.300** 7.62	**.100** 2.54	**.485** 12.32	**.500** 12.7	2-**.250 x .032** 6.35 x 0.81 Tab	With Dimple	5167892-3[2]	FASTON Receptacle
							With Hole	167892-6[2]	Positive Lock

[1]No Anti-rotation Embossments featured on High Current Taps. Therefore, if application requires product supplied without washer and screw, use of lockwashers with a high surface contact area are strongly recommended.
[2]Phosphor bronze, post plated matte tin.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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Application Tooling/PCB Layout

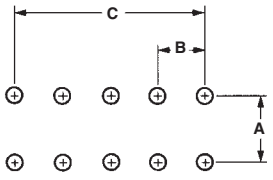
For Standard Threaded Taps Only

Recommended Pc Board Layout

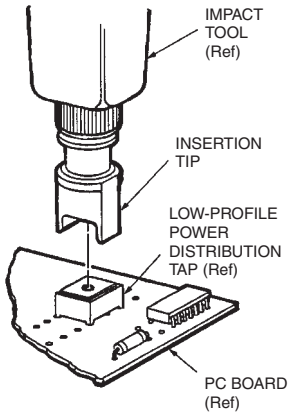
Drilled Hole Diameter—
.0453$^{\pm.001}$ [1.15$^{\pm0.03}$]
After Plating
.037-.043 [0.94-1.09]
After Reflow—
.036-.043 [0.91-1.09]

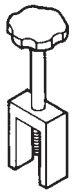
Installation and Extraction Tooling

Impact Insertion Tool Number 313102-1
(Insertion Tip Part No. 58133-1 required)



Size	Dimensions		
	A	B	C
.300 x .100 7.62 x 2.54 10 Position	**.300** 7.62	**.100** 2.54	**.400** 10.16
.250 x .125 6.35 x 3.18 6 Position	**.250** 6.35	**.125** 3.18	**.250** 6.35
250 x .125 6.35 x 3.18 10 Position	**.250** 6.35	**.125** 3.18	**.500** 12.7



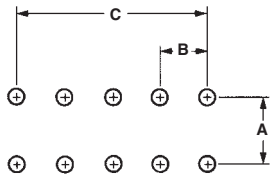


Extraction Tool Number 68380-1

For High Current and FASTON Taps

Recommended Pc Board Layout

Drilled Hole Diameter—
.063$^{\pm.001}$ [1.60$^{\pm0.03}$]
Cu Thickness—
.001-.003 [0.03-0.08]
Sn Thickness—
.0002 min.[0.004 min.]
Finished Hole—
.055-.061 [1.39-1.54]
After Reflow—
.054-.061 [1.36-1.54]



Type	Dimensions		
	A	B	C
4 Position	**.400** 10.16	**.200** 5.08	**.200** 5.08
6 Position	**.400** 10.16	**.100** 2.54	**.200** 5.08
I	—	**.200** 5.08	**.200** 5.08
II	—	**.100** 2.54	**.200** 5.08
III	**.400** 10.16	**.200** 5.08	**.200** 5.08
IV	**.300** 7.62	**.100** 2.54	**.300** 7.62

Installation Tooling

Use with Hand Press
Part No. **677430-1**

High Current Power Tap

Type	Part Number	Tooling Part Number	
		Upper Tool	Lower Tool
4 Position	216906-1	432848-1	433600-2 or 432130-2
6 Position	216907-1		
Style I	216926-1	432845-1	433600-2 or 432130-2
Style II	216843-1		
Style III	216905-1	432847-1	433600-2 or 432130-2
Style IV	5-167892-3 167892-6	432849-1	433600-2 or 432130-2

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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Application Tooling

AMPOMATOR CLS IV+ Lead-Making Machines, Part Nos. 356500-1, -2

Fully-automatic machines that measure, cut, strip and terminate single leads. Microprocessor-controlled, and programmed and operated using an easy-to-follow, menu-driven touch-screen. Features include direct-drive terminating units with precision crimp height adjustment, fully programmable setups, wire runout and splice detection, and motorized pre-feed with wire straightener. Crimp quality monitoring is also available.

For more information, request Catalog **124324**.

AMP-O-LECTRIC Model "G" Terminating Machines, Part Nos. 354500-1, -9, -11

Semiautomatic bench machines for crimping reeled terminals and contacts, featuring a quiet and reliable direct motor drive, microprocessor controls for ease of setup and operation, and guarding and lighting designed for operator convenience. All models are equipped with either manual or automatic precision adjustment of crimp height. Machine-mounted sensors are available for crimp quality monitoring using conventional miniature-style applicators.

For more information, request Catalog **65828**.

AMP-O-MATIC Stripper-Crimper Machines, Part Nos. 1320895-1, -2

Semiautomatic bench crimping machines that also strip the wire, and are therefore used for terminating jacketed cable. Feature manual precision adjustment of crimp height, keyed strip blades for faster, more accurate setups, and an efficient scrap removal system. All adjustments can be made from the front of the machines without special tools. Available with crimp quality monitoring.

For more information, request Catalog **65004**.

AMP 3K/40 and AMP 5K/40 Terminating Machines

As a value oriented terminator, the AMP 3K/40 and AMP 5K/40 terminators are designed for customers that require the increased output and quality of a semiautomatic machine at a competitive price. By incorporating the most commonly requested features as standard and offering a long list of optional equipment, these terminators offer flexibility to meet the specific needs of various applications at the lowest possible cost.

For more information, request Catalog **1654856**.

Optional Stripping Module for the AMP 3K/40, AMP 5K/40 and AMP-O-LECTRIC Model "G" Terminating Machines

The combination of the Stripping Module with the AMP-O-LECTRIC Model "G" Terminator or the AMP 3K/40, and AMP 5K/40 terminating machines provides an economical, proficient method of stripping wire and crimping terminals on the same machine. Wires are stripped moments before crimping, meaning there is virtually no chance of damaging wire conductors during handling or storage. Once the wire is fed into the start sensor, the Stripping Module does the rest, improving placement accuracy.

For more information, request Catalog **1309085**.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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Application Tooling (Continued)

Applicators

Applicators manufactured from high grade tool steels, and processed through state-of-the-art CNC equipment for tightest tolerances. Made for high repeatability and fast throughput.

We offer an unmatched selection of applicator styles and terminals types, with configurations for both Tyco Electronics and other manufacturers' terminals.

For more information, request Catalogs **296393** and **296393-2**.

The EDGE, Electronic Applicator Counter

The new, versatile EDGE applicator counter tracks wearable tool usage for the most effective maintenance planning. The completely electronic counter, with clear LCD display, indicates cycles since installation. By performing maintenance at measured intervals with pre-set limits, operators avoid breakdowns and rejects caused by tool wear or mis-adjustment.

For more information, request Catalog **1773385**.

CERTI-CRIMP Straight Action Hand Tools (SAHT)

Premium grade hand tools featuring ratchet control to provide complete crimp cycle. Die sets close in a straight line. Include a contact locator and wire stop, plus an insulation crimp adjustment lever, when applicable. Approximate weight 1.3 lb [0.59 kg]

For more information, request Catalog **65780**.

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Application Tooling (Continued)

AMP-O-MATIC "U" Frame Machine Part No. 691679-1 (Installs Board Mount Receptacles)

These insertion machines install contacts into printed circuit boards at rates to 2000 per hour. A spotlight highlights the insertion area and a lower tooling assures precise board location. The machines are actuated by a foot pedal and are bench mounted.

Product Specifications

Weight — 50 lbs.
Width — 18
Height — 23
Depth — 19
Air Supply — 80 psi
Electrical Power — 115 VAC, 60 Hz

Comp-U-Sertor II Machines, Part Nos. 122300-1, -2

Microprocessor-controlled X-Y positioning table inserts a variety of products into pc boards, including .025² stamped or bandoliered posts, mini-spring sockets, and FASTON tabs. Insertion heads for various products are interchangeable, and can be used with bench machines. Controlled, programmed and operated using an interactive touch-screen. Options include double-action clinch tooling, powered dereeler, splice run-out detector, take-up winder for paper tape, and scrap chopper.

For more information, request Catalog **296059**.

Modular Insertion System (MIS) Bench Machines, 217600 Series, 662820 Series (shown)

Strip Form Part Number	Insertion Head Part Number
60802-1	904554-1
60802-2	904554-1
60809-1	904554-1
60809-2	904554-1
60809-4	904554-1
60813-1	904554-1
61038-1	904554-1
60824-1	904554-2
60824-2	904554-2
640967-2	904554-2
641944-1	904554-2
60973-1	904554-2
60973-2	904554-2
61137-1	904558-1

Bench machines for inserting a variety of products into pc boards. Uses the same interchangeable insertion heads as the Comp-U-Sertor II Machines. Series 217600 features a manually-operated X-Y positioning fixture and locator spotlight. The machine cycles when the board hole is placed on the anvil and both triggers on the dual handles attached to the X-Y fixture are depressed. Series 662820, without board fixturing, cycle automatically when the hole is properly located. A stabilizing disk over the anvil helps keep the board level.

For more information, request Catalog **296059**.

Note: Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.

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Engineering Notes

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Global Contacts

Americas

Argentina – Buenos Aires
Phone: +54-11-4733-2200
Fax: +54-11-4733-2211

Brasil – São Paulo
Phone: +55-11-3611-1311
Fax: +55-11-3611-0397

Canada – Toronto
Phone: +905-475-6222
Fax: +905-474-5520
Product Information Center: (Technical Support)
Phone: +905-470-4425
Fax: +905-474-5525

Colombia – Bogota
Phone: +57-1-231-9398
Fax: +57-1-660-0206

Mexico – Mexico City
Phone: +52-55-1106-0800
+01-800-733-8926
Fax: +52-55-1106-0901

United States – Harrisburg, PA
Phone: +717-564-0100
Fax: +717-986-7575
Product Information Center: (Technical Support)
Phone: +800-522-6752
Fax: +717-986-7575

For Latin/South American Countries not shown
Phone: +54-11-4733-2015
Fax: +54-11-4733-2083

Asia/Pacific

Australia – Sydney
Phone: +61-2-9554-2600
Fax: +61-2-9502-2556
Product Information Center: (Technical Support)
Phone: +61-2-9840-8200
Fax: +61-2-9634-6188

India – Bangalore
Phone: +91-80-285-40800
Fax: +91-80-285-40820

Indonesia – Jakarta
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Fax: +65-6482-1012

Japan – Toyko
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Fax: +81-44-812-3207
Product Information Center: (Technical Support)
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Fax: +81-44-812-3200

Korea – Seoul
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Fax: +82-2-3486-3810

Malaysia – Kuala Lumpur
Phone: +60-3-78053055
Fax: +60-3-78053066

New Zealand – Auckland
Phone: +64-9-634-4580
Fax: +64-9-634-4586

Philippines – Makati City
Phone: +632-848-0171
Fax: +632-867-8661

People's Republic of China
Hong Kong
Phone: +852-2735-1628
Fax: +852-2735-0243

Shanghai
Phone: +86-21-2407-1588
Fax: +86-21-2407-1599

Taiwan – Taipei
Phone: +886-2-8768-2788
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Singapore – Singapore
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Fax: +65-6482-1012

Thailand – Bangkok
Phone: +66-2-955-0500
Fax: +66-2-955-0505

Vietnam and Indochina –
Ho Chi Minh City
Phone: +84-8 930-5546
Fax: +84-8 930-3443

Europe/Middle East/Africa

Austria – Vienna
Phone: +43-1 90 5 60-0
Fax: +43-1 90 5 60-1333

Belgium – Kessel-Lo
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Fax: +32-16-35-23-52

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Estonia – Tartu
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Fax: +372-7400-779

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Fax: +39-011-4031116

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Fax: +370-5-2131-403

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Product Information Center: (Technical Support)
Phone: +31-73-6246-999
Fax: +31-73-6246-998

Norway – Nesbru
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Fax: +47-66-77-8855

Poland – Warsaw
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Fax: +48-22-45-76-720

Romania – Bucharest
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Fax: +40-21-312-0574

Russia – Moscow
Phone: +7-495-926-5506/07/08/09
Fax: +7-495-926-5505

Russia – St. Petersburg
Phone: +7-812-718-8192
Fax: +7-812-718-8193

Slovenia – Ljubljana
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Fax: +386-1561-3240

South Africa – Port Elizabeth
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Fax: +2741-581-0440

Spain – Barcelona
Phone: +34-93-291-0330
Fax: +34-93-201-7879
Product Information Center: (Technical Support):
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Sweden – Upplands Väsby
Phone: +46-8-50-72-50-00
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Switzerland – Steinach
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Fax: +41-71-447-0444

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Fax: +90-212-281-8184

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Fax: +380-044-206-2264

United Kingdom – Swindon
Phone: +44-8706-080-208
Fax: +44-1793-572-516
Product Information Center: (Technical Support)
Freephone GB: 0800-267-666
Phone: +44-8706-080-208
Fax: +44-208-420-8081

For Middle East/African Countries Not Shown
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Fax: +33-1-3420-8300

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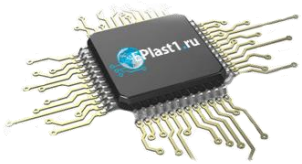

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Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.