

## **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 TE



TE now offers a complete line of printed circuit board tabs and receptacles. TE 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 line. TE currently has an entry level semiautomatic, air-powered bench machine under development for customers with moderate insertion requirements. The compact, fully automatic AccuSerter 2 machine is available for applications where larger volumes will be inserted and where programmable, microprocessor controlled equipment is desired. TE also offers the P300 and P350 series machines for even higher automation. Capabilities include: servo drive, force monitoring, up to three heads. This machine is available in stand-alone or in-line configurations.

The TE 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.

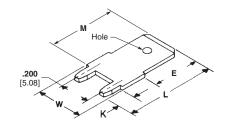
TE is one of the only companies that offers printed circuit board tabs and receptacles as well as the crimp to wire receptacles and tabs that offer a complete solution for your packaging needs.

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# 250 Series Printed Circuit Board Tabs

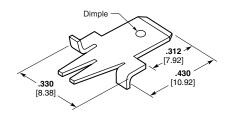
Stock Thickness — .032 [0.81] Board Hole Size — .055  $\pm$  .002 [1.40  $\pm$  0.05] Dia.



	Di	imensio	ns		Material	. <b>F</b> \	æ	Termina	al Part No.
W	L	K	Е	M	and Finish	**************************************	<b>⊕</b> ∘	Strip <sup>2</sup>	Loose Piece <sup>1</sup>
	<b>.502</b> 12.75	<b>.125</b> 3.18	<b>.312</b> 7.92	<b>.377</b> 9.58	Tin Plated Brass	Х	Х	63839-1 <sup>3</sup>	_
<b>.312</b> 7.92	<b>.547</b> 13.89	<b>.157</b> 3.99	<b>.312</b> 7.92	<b>.400</b> 10.16	Tin Plated Brass	Х	Х	63986-1	_
	.552	.150	.312	.402	Tie Diete d Deser	Х	Х	1217566-1	_
	14.02	3.81	7.92	10.21	Tin Plated Brass	X	Х	1217539-1	_
.295	.622	.125	.312	.497	Tie Diete d Deser	Х	Х	_	62409-1 <sup>3</sup>
7.49	15.80	3.18	7.92	12.62	Tin Plated Brass		_	_	1217056-1
	<b>.487</b> 12.37	<b>.125</b> 3.18	<b>.312</b> 7.92	<b>.362</b> 9.19	Tin Plated Brass	Х	Х	62650-1 <sup>3</sup>	_
<b>.280</b> 7.11	<b>.532</b> 13.51	<b>.175</b> 4.45	<b>.312</b> 7.92	<b>.357</b> 9.07	Tin Plated Brass	Х	Х	63650-1 <sup>3</sup>	_
	.622	.125	.452	.497	Tin Plated Brass	Х	Х	_	63900-1
	15.80	3.18	11.48	12.62		X	Х	63755-1 <sup>3</sup>	_

<sup>&</sup>lt;sup>1</sup> Board hole size: .060/.053 [1.52/1.35] dia.

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



Material		<u> </u>	Terminal Part No.			
and Finish	°74	Œ.	Strip <sup>1</sup>	Loose Piece		
Tin Plated Brass	X	X	63066-1	63067-1		

<sup>&</sup>lt;sup>1</sup> Insertion equipment available.

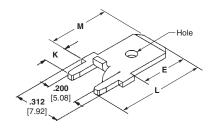
<sup>&</sup>lt;sup>2</sup> Insertion equipment available.

<sup>3</sup> Dimple



# 250 Series Printed Circuit Board Tabs (Continued)

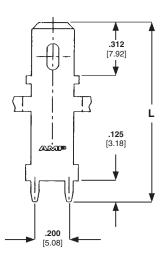
Stock Thickness — .032 [0.81] Board Hole Size — .055  $\pm$  .002 [1.40  $\pm$  0.05] Dia.



		Dimensions	3	Material	. <b>7\</b>	<u> </u>	Terminal Part No.		
L	K	Е	M	and Finish	**************************************	∰∘	Strip <sup>1</sup>	Loose Piece	
.552	.150	.312	.402	Tin Plated Brass	Х	Х	63862-1 <sup>2</sup>	1742188-1 <sup>2</sup>	
14.02	3.81	7.92	10.21	Till Plated Brass	X	Х	63824-1	63849-1	
<b>.582</b> 14.78	<b>.180</b> 4.57	<b>.312</b> 7.92	<b>.402</b> 10.21	Tin Plated Brass	Х	Х	1217136-1	1217421-1	
<b>.650</b> 16.51	<b>.150</b> 3.81	<b>.410</b> 10.41	<b>.500</b> 12.70	Tin Plated Brass	Х	Х	1217126-1 <sup>2</sup>	_	
<b>.710</b> 18.03	<b>.150</b> 3.81	<b>.470</b> 11.94	<b>.560</b> 14.22	Tin Plated Brass	Х	Х	1217125-1	1217169-1	
<b>.780</b> 26.18	<b>.150</b> 3.81	<b>.540</b> 13.72	<b>.630</b> 16.00	Tin Plated Brass	Х	Х	1217127-1	1217167-1	

<sup>&</sup>lt;sup>1</sup> Insertion equipment available.

 $\begin{array}{l} \textbf{Stock Thickness} -- .032 \ [0.81] \\ \textbf{Board Hole Size} -- \\ .055 \pm .002 \ [1.40 \pm 0.05] \ Dia. \\ \end{array}$ 



Dimension L	Material and Finish	. <b>7.</b> 1	<b>⊕</b> ∘	Terminal Part No.
<b>1.062</b> 26.97	Tin Plated Brass	Χ	Х	63949-1
<b>1.207</b> 30.66	Tin Plated Brass	Х	Х	63950-1

Note: All part numbers are RoHS compliant.

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<sup>&</sup>lt;sup>2</sup> Dimple.

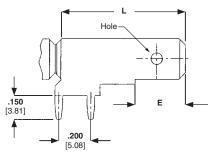


#### **250 Series Printed Circuit Board Tabs** (Continued)

#### **Right-Angle Printed Circuit Board Tabs**

**Stock Thickness** — .032 [0.81] Board Hole Size -

 $.055 \pm .002 [1.40 \pm 0.05]$  Dia.

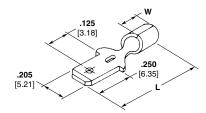


Dimensions		Material			Terminal Part No.	
E	L	and Finish	. <b>51</b> 2	<b>⊕</b> ∘	Strip <sup>1</sup>	Loose Piece
<b>.312</b> 7.92	<b>.800</b> 20.32	Tin Plated Brass	Х	Х	63951-1	1217754-1
<b>.358</b> 9.09	<b>.630</b> 16.00	Tin Plated Brass	_	_	_	928814-1
<b>.662</b> 16.83	<b>1.00</b> 25.40	Tin Plated Brass	_	_	63952-1	_

<sup>&</sup>lt;sup>1</sup> Insertion equipment available.

#### 205 Series **Printed Circuit Board Only**

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

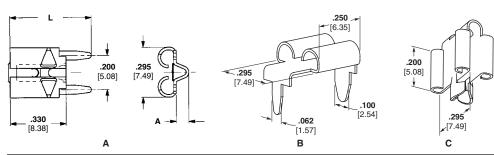


Dimensions		Material		<b>6</b> 6.	Terminal	
L	W	and Finish	. <b>91</b>	<b>⊕</b> ∘	Part No.	
<b>.525</b> 13.34	<b>.070</b> 1.78	Tin Plated Brass	Х	Х	62411-11	
<b>.545</b> 13.84	<b>.160</b> 4.06	Tin Plated Brass	Х	Х	60284-21	

<sup>&</sup>lt;sup>1</sup> Loose piece only.

## .250/.205 Printed Circuit **Board Receptacles**

**Stock Thickness** — .016 [0.41]



Style	Fits	Dime	nsions	Material	<b>.9</b> \		Par	t No.
Style	Tab	Α	L	and Finish	°77	<b>⊕</b> ∘	Strip	Loose Piece
	.032 0.81 (LIF)	<b>.075</b> 1.91	<b>.480</b> 12.19	Tin Plated Brass	_	_	63968-1	_
	. <b>032</b> 0.81	<b>.075</b> 1.91	<b>.480</b> 12.19	Tin Plated Brass	_	_	63969-1	1217080-1
A	.025 0.64 (LIF)	<b>.075</b> 1.91	<b>.480</b> 12.19	Tin Plated Brass	_	_	63994-1	_
	.025	.075	<b>.510</b> 12.95	Tin Plated Brass	_	_	1217137-1 <sup>2</sup>	_
	0.64	1.91	<b>.480</b> 12.19	Tin Plated Brass	_	_	1217180-1	_
В	. <b>020</b> 0.51	_	_	Tin Plated Phos Bronze	_	_	1217107-1 <sup>1</sup>	_
С	.250 x .016 6.35 x 0.41 Spade	_	_	Tin Plated Brass	_	_	62751-1	62806-1

Note: All part numbers are RoHS compliant.

Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999

UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015

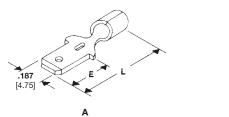
<sup>&</sup>lt;sup>1</sup> Horizontal mount.

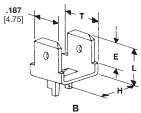
<sup>&</sup>lt;sup>2</sup> .180 [4.57] length – – solder legs.



## 187 Series Printed Circuit Board Tabs

**Stock Thickness** — .020 [0.51]

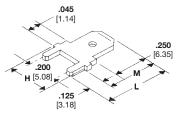




Time	Board		Dimensions			Material	. <b>R</b> .	<b>⊕</b> ∘	Terminal Part No.	
Type	Thickness	Т	LEH		and Finish	® <b>74</b>	@ °			
Α	<b>.062</b> 1.57	_	<b>.545</b> 13.84	<b>.250</b> 6.35	_	Tin Plated Brass	Χ	Х	61907-1 <sup>1</sup>	
В	<b>.062</b> 1.57	<b>.250</b> 6.35	<b>.332</b> 8.43	<b>.250</b> 6.35	<b>.303</b> 7.70	Pre-Tin Brass	Х	Х	62221-12	

<sup>&</sup>lt;sup>1</sup> Loose piece only.

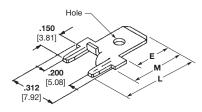
<sup>&</sup>lt;sup>2</sup> Insertion equipment available.



Tab	Board	Di	imensio	ns	Material	<i>.</i> R.	<b>%</b>	Terminal Part No.	
Thickness	nickness Hole Size L M H and Finish		Œ.	Strip <sup>2</sup>	Loose Piece				
<b>.032</b> 0.81	<b>.053057</b> 1.35-1.45	<b>.487</b> 12.37	<b>.362</b> 9.19	<b>.280</b> 7.11	Tin Plated Brass	Х	Х	63525-1 <sup>1</sup>	1217057-11
<b>.020</b> 0.51	.050054	<b>.487</b> 12.37	<b>.362</b> 9.19	<b>.285</b> 7.24	Tin Plated Brass	Х	Х	63603-1	1217131-1
	1.27-1.37	<b>.440</b> 11.18	<b>.315</b> 8.00	<b>.312</b> 7.92	Tin Plated Brass	Х	Х	63838-1	_

<sup>&</sup>lt;sup>1</sup> Dimple.

<sup>&</sup>lt;sup>2</sup> Insertion equipment available.



Tab	D	imensior	ıs	Material	<i>.</i> 91	∰∘	Terminal Part No.	
Thickness	L	E	М	and Finish	°77	Œ.	Strip <sup>3</sup>	Loose Piece
	.490	.250	.340	Tin Plated Brass	Х	Х	63860-1 <sup>1</sup>	_
	12.45	6.35	8.64	TIII Flateu Brass	X	Х	1217133-1	_
.032	<b>.510</b> 12.95	<b>.250</b> 6.35	<b>.370</b> 9.40	Tin Plated Brass	Х	Х	1742361-1	-
0.81	<b>.710</b> 18.03	<b>.470</b> 11.94	<b>.560</b> 14.22	Tin Plated Brass	Х	Х	1217124-1	-
	<b>.635</b> 16.13	<b>.395</b> 10.03	<b>.485</b> 12.32	Tin Plated Brass	Х	Х	_	1217332-1²
.020	<b>.490</b> 12.45	<b>.250</b> 6.35	<b>.340</b> 8.64	Tin Plated Brass	Х	Х	63823-1	63982-1
0.51	<b>.510</b> 12.95	<b>.250</b> 6.35	<b>.370</b> 9.40	Tin Plated Brass	Х	Х	1742362-1	_

<sup>&</sup>lt;sup>1</sup> Dimple.

<sup>&</sup>lt;sup>2</sup> No hole or dimple.

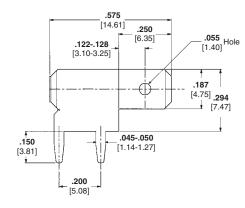
<sup>&</sup>lt;sup>3</sup> Insertion equipment available.



## 187 Series Printed Circuit Board Tabs

(Continued)

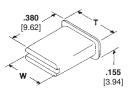
Right-Angle Printed Circuit Board Tabs



Stock Thickness	Board Hole Size	Material and Finish	. <b>91</b>	<b>⊕</b> ∘	Terminal Part No.
.032	.053057	Tin Plated Brass	Χ	Χ	1217061-1
0.81	1.35-1.45	Till Flated Blass	_	_	1217756-1 <sup>1</sup>
.020	.050054	Tin Plated Brass	Х	Х	1217062-1
0.51	1.27-1.37	Till Flateu Blass	_	_	1217156-1 <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Loose piece.

# Tab Caps 187 and 250 Series



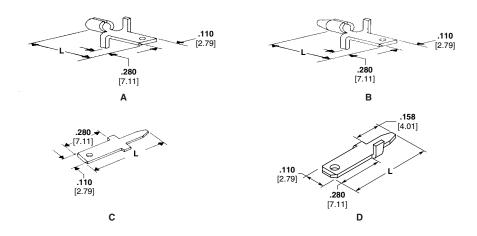
Tab Size	Material	UL 941	Color	Dime	Insulator	
Tab Size	Material	OL 94	Coloi	Т	W	Part No.
"187" Series .020 [0.51] Thick	Nylon	V2	Natural	<b>.320</b> 8.13	<b>.260</b> 6.60	360041-1
"250" Series .032 [0.81] Thick	Nylon	V2	Natural	<b>.380</b> 9.65	<b>.320</b> 8.13	360042-1

<sup>&</sup>lt;sup>1</sup> Flammability rating.



## .110 Series Printed Circuit **Board Tabs**

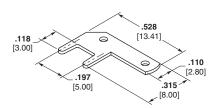
**Stock Thickness** — .020 [0.51]



Style	Mating Hole Diameter	Dim. L	Material and Finish	<i>.</i> 91	<b>⊕</b> ∘	Terminal Part No.
Α	<b>.060055</b> 1.52-1.40	<b>.490</b> 12.45	Tin Plated Brass	Х	Х	61134-3 <sup>1</sup>
В	<b>.067063</b> 1.70-1.60	.485 12.32 Tin Plated Brass	X	Χ	61968-1 <sup>2</sup>	
			Till Flateu Brass	X	Х	62437-1 <sup>1</sup>
С	. <b>044048</b> 1.12-1.22	<b>.490</b> 12.45	Tin Plated Brass	Х	Х	62395-1 <sup>2</sup>
		<b>.622</b> 15.80	Tin Plated Brass	Х	Х	63756-1 <sup>2,3</sup>

<sup>&</sup>lt;sup>1</sup> Loose piece only.

#### **Right-Angle Printed Circuit Board Tabs**



Tab Thickness	PCB Hole Dia. +0/01 [+0/03]	Material and Finish	.81	<b>⊕</b> ∘	Terminal Part No.
<b>.032</b> 0.81	<b>.055</b> 1.40	Tin Plated Brass	_	_	725963-2
<b>.020</b> 0.51	<b>.051</b> 1.30	Tin Plated Brass	_	_	725996-2

Note: All part numbers are RoHS compliant.

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<sup>&</sup>lt;sup>2</sup> Insertion machine available.

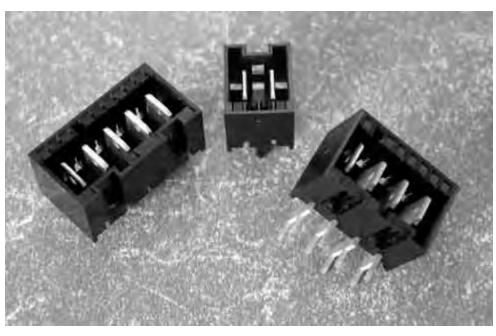
 <sup>3 .032 [0.81]</sup> stock.
4 .060 [1.52] tab width.



#### 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 TE 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

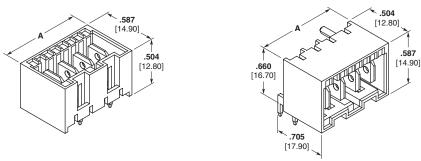
UL 94 V-0, 6/6 Nylon

See TE Catalog 1654742 for the complete line of RAST products.



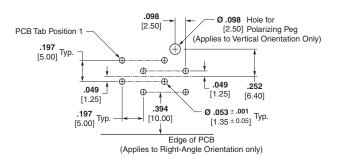
#### FASTON RAST 5 Tab Header Assembly, 250 Series

(Continued)



**Vertical Orientation** 

**Right-Angle Orientation** 



PCB Layout (Ref.) from Component Side

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

Refer to the TE Customer Drawing for additional details and specific keying patterns. For more information related to the RAST 5 Standard, see TE Literature Distribution no. 1308243.

Available variations include: silver plated tabs, DIN style tabs, and Glow Wire housings.

RAST 5 headers mate to the following product families: AMP multifitting MKII, RAST 5 Positive Lock MKIII, AMP Standard Timer and AMP Standard Power Timer.