

# SIAMEZE Terminals

#### **Product Facts**

- Terminates all copper magnet wire film insulations
- Eliminates need for pre-stripping conductors
- Moving Beam contact design connects a wide range of magnet wire sizes with a single terminal
- Standard range terminals connect 34-18 AWG [0.16-1.0 mm] magnet wire
- Fine range terminals connect 36-27 AWG [0.13-0.38 mm] magnet wire
- Medium range terminals connect 23-12 AWG [0.56-2.03 mm] magnet wire
- Excess magnet wire is automatically trimmed during the termination process
- Available in strip form for semi-automatic or fully automatic insertions
- Loose piece terminals available for manual tool insertions
- High-speed automatic coil winding machine terminations provide uniform reliability at the lowest possible applied cost
- Clean metal-to-metal interface produces stable, gas-tight electrical terminations free of oxides and other contaminants
- Recognized under the Component Program of Underwriters Laboratories Inc.,File No. E13288

#### Applications

- Motor windings and connections
- Coil connections
- Transformer windings and connections
- Ballasts
- Power supplies
- Solenoids
- Actuators



TE offers a full selection of SIAMEZE insulation displacement (IDC) terminals for interconnecting copper magnet wires, lead wires, and other components.

The SIAMEZE insulation displacement (IDC) terminal technology eliminates the need to strip the film insulation from copper magnet wires and lead wires.

Terminals are available in wire-to-wire, Lead Lok, quick disconnect tabs, posts, pin and receptacle terminals.



Available with either Moving Beam contacts whereby a single terminal connects toa very wide range of magnet wire sizes, or a Compliant Beam for contacting two magnet wires of the same diameter in one terminal for splicing or bi-filar applications.

Tab terminals are available with single barbs or multiple retention barbs for higher retention.

According to TE specifications SIAMEZE cavities are either integrated into coil bodies or specially designed cavity housings.

The magnet wires are positioned in the "U"shaped slots.

The SIAMEZE terminal Inserter cuts the terminals from the strip and places the terminals over the magnet wire into the plastic cavities.

During this operation the small stripping devices penetrate the film insulation from the magnet wire. Residual spring energy in the terminal causes the side walls of the IDC slot to function as opposing cantilever beams.

This constant pressure results in an intimate metal-to-metal interface, providing a reliable, long-term connection.

The wiping action between the wire and terminals remove all oxides or other contaminants present on both the conductor and the terminal slot side walls, producing a clean, stable, gas-tight electrical termination.

The SIAMEZE terminal Inserter may be used as a semi-automatic bench machine or integrated in production lines for fully-automatic applications.



Lead Lok Terminals Product Facts

- Provides perpendicular and parallel lead wire strain relief retention forces in excess of 20 lbs (90 N).
- Inserter automatically positions and secures lead wire during insertion
- Manual, semi-automated, fully automated systems allow for lead wire termination
- Accepts #18-#22 [0.3mm 2-0.8 mm<sup>2</sup>] AWG solid or stranded lead wire with .115 [2.92] max.insulation diameter
- No lead wire stripping required



TE features the Lead Lok strain relief terminal system that provides optimum lead wire retention when used in conjunction with SIAMEZE insulation displacement terminals.

After the one-step insertion of SIAMEZE wire-towire terminals into TE specified plastic cavities, the application is ready for the secondary lead wire attachment.

The lead wire is manually positioned over the magnet wire terminated SIAMEZE wire-to-wire terminal.

cuts the Lead Lok terminals from the strip and places the terminal over the lead wire in the plastic cavities.

During this operation, the lead wire is automatically seated, the insulation pierced and the exposed solid or stranded conductor is terminated in the IDC slot of the SIAMEZE wire-to-wire terminal.

Residual spring energy in the terminal causes the side walls of the IDC slot to function as opposing cantilever beams.

This constant pressure results in an intimate

metal-to-metal interface, providing a reliable, long-termconnection.

Perpendicular and parallel lead wire strain relief retention forces in excess of 20 lbs are achieved.

The Lead Lok Inserter may be a secondary station in the SIAMEZE Wire-to-Wire semi-automatic bench machine.

Information regarding terminal insertion equipment may be found in Magnet Wire Termination Overview #138516.

The Lead Lok Inserter

## **TECHNICAL DOCUMENTS**

Cavity Specifications - Provide dimensional design guidelines & criteria for a cavity to be used with a SIAMEZE IDC terminal. The appropriate Cavity Specification number is shown on the following pages adjacent to the terminal number. As a general reference, overall dimensions are shown at the end of this section.

Product Specifications (These describe the performance characteristics and verification tests)

- 108-2085 Standard Range SIAMEZE Insulation Displacement
- 108-2293 High Temperature Standard Range SIAMEZE Insulation Displacement
- 108-2244 Fine Range SIAMEZE Insulation Displacement
- 108-2239 Medium Range SIAMEZE Insulation Displacement
- 108-2316 Heavy Range SIAMEZE Insulation Displacement

■ Application Specifications (These describe the requirements for using the product in its intended application )

114-13166 Standard and Fine Range SIAMEZE Insulation Displacement

114-13210 Medium and Heavy Range SIAMEZE Insulation Displacement



#### SIAMEZE Interconnection System

How the System Operates

#### Magnet Wire

The magnet wire is positioned in "U" slot manually or automatically by coil winding equipment.

② Terminal Insertion Finger The terminal insertion finger is part of the SIAMEZE Inserter. It pushes the terminal that was sheared from the carrier strip through the"tube" into the cavity.

# ③ Contact

Various wire attachments in standard, fine, mediumand heavy duty terminals are available (See tables).

- ④ IDC Slot The IDC slot in the terminal will terminate a wide range of magnet wire sizes.
- (5) Stripping Burrs During the insertion process, these burrsstrip the film insulation from the magnet wire.
- (6) Retention Barbs Terminal retention is provided in the cavity by single or multiple locking barbs.

# **Test Results**

SIAMEZE products have been submitted to the following tests without significant millivolt increase:

- Plastic Cavity Design must comply with TE connectivity specifications(for cavity drawing numbers see tables). ConsultingTE is required for design in.
- (8) Cavity Slot for Wire The width has to be in accord ance with the wire size (see cavity drawings).
- Wire Cutoff Block The wire cutoff block supports the magnet wire during the trimming process. The magnet wire is cut plain to the cavity front side.
- Trim Blade The trim blade cuts the excess magnet wire and the wire cutoff block at the front of the cavity.
- Terminal Insertion Complete

The magnet wire termination is complete when the terminal is fully seated in the cavity.

## Current Cycling—

250 cycles with each cycle consisting of 15 minutes "ON" followed by 15 minutes "OFF"

## Thermal Shock—

25 Cycles -40°C to +125°C, 25 Cycles -40°C to +175°C for High Temperature terminals

# Humidity—

**Temperature Cycling** 10 cycles between 25°C and 65°C at 80 to 100% RH





Lead Lok Interconnection System

How the System Operates

- ① Lead Lok Insertion Finger The Lead Lok insertion finger pushes the Lead Lok that was sheared from the carrier strip and positions the Lead Lok and lead wire into the IDC slot.
- ② Lead Lok Terminal The Lead Lok terminal provides maximum lead wire retention in the cavity.
- ③ **Retention Barbs** The Lead Lok multiple barbs provide retention in the cavity.
- (4) Lead Wire
  - Stranded, solid and bonded lead wire with 105°C PVC insulation can be used. Contact TE Engineering for other lead wires and insulation under consideration.
- ⑤ IDC Slot The IDC slot will pierce the lead wire during insertion.
- ⑥ Lead Wire Insertion Complete The lead wire termination is complete when the Lead Lok is fully seated in the



# HOW TO CONNECT MULTIPLE MAGNET WIRES OR OTHER COMPONENTS

cavity.

① Bussed High Carrier Terminals

Bridging of two SIAMEZE terminals that is accomplished by leaving the carrier strip between two adjacent terminals intact.

- ② Bussed High Carry SIAMEZE Plastic Cavity Bussed cavity pocket designs are available for double or triple bussed terminals.
- ③ Magnet Wire Magnet wire may be equal or differ in size for bi-filar applications.



Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents. Dimensions are shown for reference purposes only. Specifications subject to change.



#### Wire-to-Wire Terminals

Material

Brass













Туре	Recommended				d Wire Inge	Part I	Number
Type	Pocket7	AWG	mm	AWG	mm <sup>2</sup>	Reeled	Loose
A	4004404	18-34	1.02-0.16	18-22 <sup>6</sup>	0.8-0.3	1601000-1 1601000-2⁵	4-1601000-1 <sup>2</sup> 4-1601000-2 <sup>2,5</sup>
Moving Beam	1601421	27–36	0.36–0.13	18-22 <sup>6</sup>	0.8-0.3	1601117-1 2-1601117-1 <sup>1</sup>	4-1601117-1 <sup>2</sup>
B Wire Specific <sup>8</sup>	1601421	18-34	1.02–0.16	20	0.5	1601056-1 2-1601056-1 <sup>1</sup>	4-1601056-1 <sup>2</sup>
	1001421	18-34	1.02-0.16	18	0.8	1601074-1 2-1601074-1 <sup>1</sup>	4-1601074-1 <sup>2</sup>
C High Carrie	1601433 r 1601440	18-34	1.02-0.16	18-22 <sup>6</sup>	0.8-0.3	1601046-1 2-1601046-1 <sup>1</sup>	4-1601046-1 <sup>2</sup> 6-1601046-1 <sup>3</sup> 8-1601046-1 <sup>4</sup>
D High Carrier Specific <sup>8</sup>	r 1601433	27–36	0.36-0.13	20	0.5	1601237-1 2-1601237-1 <sup>1</sup>	4-1601237-1 <sup>2</sup> 6-1601237-1 <sup>3</sup>
E Medium Range	1601436	12-23	2.06-0.56	16-20	1.3-0.5	1601136-1 2-1601136-1 <sup>1</sup>	4-1601136-1 <sup>2</sup> 6-1601136-1 <sup>3</sup>
F Lead Lok	1601421 1601433 1601440			18-22	0.8-0.3	1601140-1 2-1601140-1 <sup>1</sup>	4-1601140-1

Reversed Reeled—Consult TE drawing for orientation.
 Loose Single.
 Loose Bussed (Bridged) Double.
 Loose Bussed (Bridged) Triple.
 Finish is Post Plated Tin over Copper (Consult TE drawing for specifics).
 Lead wire may be stranded, solid or bonded with 105°C PVC insulation. Contact TE Engineering when using other types of insulation.
 Magnet wire 30 AWG [0.25 mm] and smaller also requires a wrap post per drawing 1601447.
 Wire Specific terminals have a top contact designed to penetrate difficult Lead Wire Insulation (e.g Irradiated types).





Material









А		В			С		D	
Turne	Recommended	Copper Mag	net Wire Range	L <sup>8</sup>	Mating	Part Number		
Туре	Pocket <sup>5</sup>	AWG	mm	Dim.	Tab Size	Reeled	Loose	
						1601075-1 2-1601075-1 <sup>1</sup>	4-1601075-1 <sup>2</sup>	
A Wire2Blade In Line	1601425	18-34	1.02-0.16	.300 7.62	.020 0.51	1601075-2 <sup>6</sup> 2-1601075-2 <sup>1,6</sup>	4-1601075-2 <sup>2,6</sup>	
						2-1601075-3 <sup>1,7</sup>	-	
B Wire2Blade High Carrier In Line	1601426	18-34	1.02-0.16	.300 7.62	.020 0.51	1601196-1 2-1601196-1 <sup>1</sup>	4-1601196-1 <sup>2</sup> 6-1601196-1 <sup>3</sup> 8-1601196-1 <sup>4</sup>	
C Wire2Blade In Line Medium Range	1601436	15-23	1.47-0.56	.550 13.97	.032 0.81	1601232-2 <sup>7</sup> 2-1601232-2 <sup>1,7</sup>	4-1601232-2 <sup>2,7</sup>	
D Wire2Blade Off Line Medium Range	1601437	15-23	1.47-0.56	.310 7.87	.032 0.81	1601137-2 <sup>6</sup> 2-1601137-2 <sup>1,6</sup>	4-1601137-2 <sup>2,6</sup>	

1 Reverse Reeled –Consult TE drawing for orientation. 3 Loose Bussed (Bridged) Double. 5 Magnet wire 30 AWG [0.25] and smaller also requires a wrap post per Specification

2 Loose Single.
4 Loose Bussed (Bridged) Triple.
6 Finish is Pre Plated Tin (Consult TE drawing for specifics).
8 Overall Height of terminal does not include inserted Blade (Tab).

1601447.7 Finish is Post Plated Tin over Nickel (Consult TE drawing for specifics).

## **Pin Terminals**

Material

Brass



Туре	Recommended	Copper Magnet Wire Range		L	Pin Dia.	Part Number	
туре	Pocket <sup>2</sup>	AWG	mm	Dim.	Fili Dia.	Reeled	Loose
E Round Pin	1601424	18-34	1.02-0.16	.718 18.24	.084 2.13	1601077-1 2-1601077-1 <sup>1</sup>	4-1601077-1 <sup>3</sup>

1 Reverse Reeled –Consult TE drawing for orientation. 2 Magnet wire 30 AWG [0.25 mm] and smaller also requires a wrap post per drawing 1601447. 3 Loose piece single.

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

Dimensions are shown for reference purposes only. Specifications subject to change. www.te.com/appliances

SIAMEZE Terminals



**.146** [ 3.71 ]

**.146** -[ 3.71 ]

**.020** [ 0.51 ]

**.146** [ 3.71 ]

**.020** [ 0.51 ]

# SIAMEZE Terminals (Continued)



**.146** [ 3.71 ]

**.020** [ 0.51 ]

**.146** [ 3.71 ]

**.020** [ 0.51 ]



	С		D	E		F				
Recommended	Copper Mag	net Wire Range	Tab Size	L	Part N	lumber				
Pocket <sup>7</sup>	AWG	mm	Tab Size	Dim.	Reeled	Loose				
	18-34	1 02 0 16	.040 x .020 1.02 x 0.51	.345 8.76	2-1601009-4 <sup>1,5</sup>	4-1601009-4 <sup>2,5</sup>				
1601424	10-34	1.02-0.10	.040 x .020 1.02 x 0.51	.405 10.29	2-1601214-2 <sup>1,5</sup>	4-1601214-2 <sup>2,5</sup>				
1001424	29**	0.29	.040 x .020 1.02 x 0.51	.345 8.76	1601155-3 <sup>5</sup> 2-1601155-3 <sup>1,5</sup>	4-1601155-3 <sup>2,5</sup>				
	27-36	0.36-0.13	.040 x .020 1.02 x 0.51	.345 8.76	1601120-4 <sup>5</sup> 2-1601120-4 <sup>1,5</sup>	4-1601120-4 <sup>2,5</sup>				
	18.34	1 02 0 16	.040 x .020 1.02 x 0.51	.456 11.57	1601095-2 <sup>4</sup> 2-1601095-2 <sup>2,4</sup>	4-1601095-2 <sup>2,4</sup>				
1601425	10-34	1.02-0.16	.040 x .020 1.02 x 0.51	.485 12.32	1601041-3 <sup>5</sup> 2-1601041-3 <sup>1,5</sup>	4-1601041-3 <sup>2,5</sup>				
	27-36	0.36-0.13	.040 x .020 1.02 x 0.51	.485 12.32	1601128-3 <sup>5</sup> 2-1601128-3 <sup>1,5</sup>	4-1601128-3 <sup>2,5</sup>				
1601431			.047 x .032 1.20 x. 0.81	.754 19.16	1601110-2 <sup>6</sup> 2-1601110-2 <sup>1,6</sup>	4-1601110-2 <sup>2,5</sup>				
			.059 x .032 1.50 x. 0.81	.669 17.00	1601099-2 <sup>5</sup> 2-1601099-2 <sup>1,5</sup>	4-1601099-2 <sup>2,5</sup>				
	10.01	4 00 0 40	.059 x .032 1.50 x. 0.81	.756 19.21	1601063-2 <sup>6</sup> 2-1601063-2 <sup>1,6</sup>	4-1601063-2 <sup>2,6</sup>				
	18-34	1.02-0.16	.059 x .032 1.50 x. 0.81	.904 22.96	1601037-2 <sup>6</sup> 2-1601037-2 <sup>1,6</sup>	4-1601037-2 <sup>2,6</sup>				
			.059 x .032 1.50 x. 0.81	1.005 25.53	1601066-2 <sup>6</sup> 2-1601066-2 <sup>1,6</sup>	4-1601066-2 <sup>2,6</sup>				
								.071 x .025 1.80 x 0.64	.974 24.74	1601104-2 <sup>6</sup> 2-1601104-2 <sup>1,6</sup>
1601425	18-34	1.02-0.16	.059 x .032 1.50 x 0.81	.805 20.45	293214-1 2-293214-1 <sup>1</sup>	_				
e 1601475	18-34	1.02-0.16	.118 x .020 3.00 x 0.51	.533 13.54	1601243-2 <sup>3</sup> 2-1601243-2 <sup>1,3</sup>	4-1601243-2 <sup>2,3</sup>				
	27-36	0.36-0.13	.118 x .025 3.00 x 0.64	.952 24.18	1601119-2 <sup>6</sup> 2-1601119-2 <sup>1,6</sup>	4-1601119-2 <sup>2,6</sup>				
1601438 e	12-23	0.56-2.06	.130 x .032 3.30 x 0.81	.872 22.15	1601138-1 2-1601138-1 <sup>1</sup>	4-1601138-1 <sup>2</sup>				
	Pocket7 1601424 1601425 1601431 1601425 1601425 1601475	$     \begin{array}{c cccccccccccccccccccccccccccccccc$	Pocket <sup>7</sup> AWG         mm           1601424         18-34         1.02-0.16           29 <sup>-+</sup> 0.29           27-36         0.36-0.13           1601425         18-34         1.02-0.16           1601425         18-34         1.02-0.16           1601425         18-34         1.02-0.16           1601431         18-34         1.02-0.16           1601431         18-34         1.02-0.16           1601425         18-34         1.02-0.16           1601475         18-34         1.02-0.16           1601438         12-23         0.56-2.06	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{ c c c c c c c } \hline Pocket? & AWG & mm & Tab Size & Dim. \\ \hline Pocket? & AWG & mm & 0 & Tab Size & Dim. \\ \hline Pocket? & AWG & mm & 0.40 \times .020 & .345 \\ 1.02 \times 0.51 & 1.02 \times 0.51 & 8.76 \\ \hline .0.02 \times 0.51 & 10.29 & .040 \times .020 & .345 \\ 1.02 \times 0.51 & 10.29 & .040 \times .020 & .345 \\ \hline .0.22 \times 0.51 & 8.76 & .020 & .040 \times .020 & .345 \\ \hline .0.22 \times 0.51 & 8.76 & .040 \times .020 & .345 \\ \hline .0.22 \times 0.51 & 1.02 \times 0.51 & 8.76 & .040 \times .020 & .345 \\ \hline .0.22 \times 0.51 & 1.02 \times 0.51 & 8.76 & .040 \times .020 & .345 \\ \hline .0.02 \times 0.51 & 10.29 & .040 \times .020 & .485 & .102 \times 0.51 & 11.57 \\ \hline .0.40 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .051 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .040 \times .020 & .485 & .102 \times 0.51 & 12.32 & .059 \times .032 & .050 & .032 & .050 & .032 & .050 & .032 & .050 & .032 & .050 & .031 & .050 \times 0.81 & 19.21 & .059 \times .032 & .050 & .031 & .25.53 & .071 \times .025 & .974 & .180 \times 0.64 & .24.74 & .1601425 & 18.34 & 1.02-0.16 & .059 \times .032 & .050 & .051 & .13.54 & .20.45 & .130 \times 0.84 & .24.74 & .1601475 & .18.34 & 1.02-0.16 &118 \times .020 & .533 & .00 \times 0.64 & .24.74 & .1601438 & 12-23 & 0.56-2.06 &130 \times .032 & .872 & .330 \times 0.81 & .22.15 &150 \times .081 & .22.15 &150 \times$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$				

Reverse Reeled –Consult TE drawing for orientation.
 Finish is Post Plated Tin (Consult TE drawing for specifics).
 Finish is Post Plated Tin over Nickel (Consult TE drawing for specifics).
 Magnet wire 30 AWG [0.25] and smaller also requires a wrap post per Specification 1601447

38

2 Loose Piece Single.
4 Finish is Post Plated Tin over Copper (Consult TE drawing for specifics).
6 Finish is Pre Plated Tin (Consult TE drawing for specifics)
\*\* Compliant contact can connect 2 wires of the same diameter.

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

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





Turne	Recommended	Copper Mag	net Wire Range	Thickness	L	Part N	umber
Туре	Pocket <sup>8</sup>	AWG	mm	THICKNESS	Dim.	Reeled	Loose
				.020 0.51	.640 16.26	1601005-1 2-1601005-1 <sup>1</sup>	4-1601005-1 <sup>2</sup>
				.020 0.51	.640 16.26	1601204-2 <sup>6,7</sup> 2-1601204-2 <sup>1,6,7</sup>	4-1601204-2 <sup>2,6</sup>
A Single Barb	1601425	18-34	1.02-0.16	.020 0.51	.846 21.49	1601045-1 2-1601045-1 <sup>1</sup>	4-1601045-1 <sup>2</sup>
				.020 0.51	.846 21.49	1601059-1 <sup>7</sup> 2-1601059-1 <sup>1,7</sup>	4-1601059-1 <sup>2,7</sup>
				.020 0.51	.925 23.50	1601073-1 2-1601073-1 <sup>1</sup>	4-1601073-1 <sup>2</sup>
B Single Barb	1601431	18-34	1.02-0.16	.032 0.81	.945 24.00	1601097-3 <sup>6,7</sup> 2-1601097-3 <sup>1,6,7</sup>	4-1601097-3 <sup>2,6</sup>
Low Transition	1001431	10-34	1.02-0.10	.032 0.81	1.195 30.35	1601194-2 <sup>3,7</sup> 2-1601194-2 <sup>1,3,7</sup>	4-1601194-2 <sup>2,3</sup>
				.020 0.51	.655 16.63	1601039-1 2-1601039-1 <sup>1</sup>	4-1601039-1 <sup>2</sup>
				.020 0.51	.655 16.63	1601039-2 <sup>6</sup> 2-1601039-2 <sup>1,6</sup>	4-1601039-2 <sup>2,6</sup>
C Multi-Barb	1601425	18-34	1.02-0.16	.032 0.81	.630 15.99	1601064-1 <sup>7</sup> 2-1601064-1 <sup>1,7</sup>	4-1601064-1 <sup>2,7</sup>
				.032 0.81	1.240 31.50	1601112-2 <sup>6,7</sup> 2-1601112-2 <sup>1,6,7</sup>	4-1601112-2 <sup>2,6</sup>
		27-36	0.36-0.13	.032 0.81	1.240 31.50	1601133-2 <sup>6,7</sup> 2-1601133-2 <sup>1,6,7</sup>	4-1601133-2 <sup>2,6</sup>

Reverse Reeled-Consult TE drawing for orientation.
 Loose Piece Single.
 Finish is Post Plated Tin over Nickel (Consult TE drawing for specifics).
 Finish is Post Plated Tin (Consult TE drawing for specifics).
 Finish is Pre-Plated Tin over Copper (Consult TE drawing for specifics).
 Finish is Pre-Plated Tin (Consult TE drawing for specifics).
 Finish is Pre-Plated Tin (Consult TE drawing for specifics).
 Finish is Pre-Plated Tin (Consult TE drawing for specifics).
 Finish is Pre-Plated Tin (Consult TE drawing for specifics).
 State Te drawing for specifics).
 No hole in Tab.
 Magnet wire 30 AWG [0.25] and smaller also requires a wrap post per Specification 1601447.



### 187 Series (4.75 mm wide) **FASTON Tab Terminals**

#### Material

Brass (except High Temp listed below)



Tuno	Recommended	Copper Magnet Wire Range		Thislanss	L	Part Number					
Туре	Pocket <sup>8</sup>	AWG	mm	Thickness	Dim.	Reeled	Loose				
A Single Barb	1601425	18-34	1.02-0.16	.020 0.51	.605 15.37	1601006-2 <sup>5</sup> 2-1601006-2 <sup>1,5</sup>	4-1601006-2 <sup>2,5</sup>				
P				.020 0.51	.505 12.83	1601011-1 2-1601011-1 <sup>1</sup>	4-1601011-1 <sup>2</sup>				
B Single Barb Short Pocket	1601427	18-34	1.02-0.16	.020 0.51	.590 14.99	1601018-2 <sup>5,6</sup> 2-1601018-2 <sup>1,5,6</sup>	4-1601018-2 <sup>2,5,0</sup>				
				.020 0.51	.985 25.02	1601033-2 <sup>5,6</sup> 2-1601033-2 <sup>1,5,6</sup>	4-1601033-2 <sup>2,5,0</sup>				
				.020 0.51	.618 15.70	1601021-2 <sup>5,6</sup> 2-1601021-2 <sup>1,5,6</sup>	4-1601021-2 <sup>2,5,0</sup>				
				.020 0.51	.655 16.64	1601013-1 2-1601013-1 <sup>1</sup>	4-1601013-1 <sup>2</sup>				
	1601425							.020 0.51	.791 20.09	3-1601072-2 <sup>5,6</sup>	4-1601072-2 <sup>2,5,6</sup>
		18-34	1.02-0.16	.020 0.51	0.832 21.14	1601068-2 <sup>5,6</sup> 2-1601068-2 <sup>1,5,6</sup>	4-1601068-2 <sup>2,5,0</sup>				
C Multi-Barb				.032 0.81	.625 15.88	1601174-2 <sup>5,6</sup> 2-1601174-2 <sup>1,5,6</sup>	4-1601174-2 <sup>2,5,</sup>				
				.032 0.81	.655 16.64	1601035-1 2-1601035-1 <sup>1</sup>	4-1601035-1 <sup>2</sup>				
				.032 0.81	.655 16.64	1601035-2 <sup>5</sup> 2-1601035-2 <sup>1,5</sup>	4-1601035-2 <sup>2,5</sup>				
				.032 0.81	.745 18.92	293029-1 <sup>5</sup> 2-293029-1 <sup>1,5</sup>	-				
		20-23**	0.58-0.81		.655 16.64	1601142-1 2-1601142-1 <sup>1</sup>	4-1601142-1 <sup>2</sup>				
D Multi-Barb	1601424	19.24	1.02-0.16	.032 0.81	0.492 12.50	1601058-2 <sup>5,7</sup> 2-1601058-2 <sup>1,5,7</sup>	4-1601058-2 <sup>2,5,</sup>				
Short Profile	1601434	18-34	1.02-0.10	.032 0.81	0.571 14.50	1601226-1 <sup>3,6</sup> 2-1601226-1 <sup>1,3,6</sup>	4-1601226-1 <sup>2,3,</sup>				
		10.01	1 00 0 40	.020 0.51	.655 16.64	1601020-1 2-1601020-1 <sup>1</sup>	4-1601020-1 <sup>2</sup>				
E Multi-Barb .187/.250 Profile	1601425	18-34	1.02-0.16	.020 0.51	.655 16.64	1601020-2 <sup>5</sup> 2-1601020-2 <sup>1,5</sup>	4-1601020-2 <sup>2,5</sup>				
			18-34	1.02-0.16	.020 0.51	.805 20.45	1601049-2 <sup>5</sup> 2-1601049-2 <sup>1,5</sup>	4-1601049-2 <sup>2,5</sup>			

Reverse Reeled-Consult TE drawing for orientation.
 High Temperature Copper Alloy.
 Finish is Pre Plated Tin (Consult TE drawing for specifics).
 Extra Short Tab-Does not meet UL & NEMA length requirements.
 \*\* Compliant contact can connect 2 wires of the same diameter

2 Loose Piece Single.
4 Finish is Post Plated Tin (Consult TE drawing for specifics).
6 No hole in Tab.,
8 Magnet wire 30 AWG [0.25] and smaller also requires a wrap post per Specification 1601447.

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





Turne	Recommended	Copper Magnet Wire Range		L	Tab		Part Number	
Туре	Pocket <sup>6</sup>	AWG	mm	Dim.	Feature	Tab Size	Reeled	Loose
		27-36	0.36-0.13	.745 18.92	Hole	.250 x .032 6.35 x 0.81	1601118-2 <sup>3</sup> 2-1601118-2 <sup>1,3</sup>	4-1601118-2 <sup>3</sup>
				.745 18.92	Hole	.250 x .032 6.35 x 0.81	1601002-2 <sup>3</sup> 2-1601002-2 <sup>1,3</sup>	4-1601002-2 <sup>3</sup>
							1601028-2 <sup>3</sup> 2-1601028-2 <sup>1,3</sup>	4-1601028-2 <sup>3</sup>
A Multi-Barb	1601425	18-34	1.02-0.16	.805	Hole	.250 x .032 6.35 x 0.81	1601028-1 2-1601028-1 <sup>1</sup>	4-1601028-1
		10-34	1.02-0.10	20.45			284937-1 <sup>7</sup> 2-284937-1 <sup>1,7</sup>	_
					Dimple	.250 x .032 6.35 x 0.81	1601061-2 <sup>3</sup> 2-1601061-2 <sup>1,3</sup>	4-1601061-2 <sup>3</sup>
				1.281 32.53	Hole	.250 x .032 6.35 x 0.81	1601052-2 <sup>2,4</sup> 2-1601052-2 <sup>1,2,4</sup>	4-1601052-2 <sup>2</sup>
B Single Barb Medium Range	1601438	12-23	2.03-0.56	.778 19.76	_	.250 x .032 6.35 x 0.81	1601139-2 <sup>3</sup> 2-1601139-2 <sup>1,3</sup>	4-1601139-2 <sup>3</sup>
0		12-20 2	2.03-0.8	.885 22.48	Hole	.250 x .032 6.35 x 0.81	1601115-1 2-1601115-1 <sup>1</sup>	4-1601115-1
C Single Barb Heavy Range		16-17 <sup>5</sup>	1.27-1.15	.885 22.48	Hole	.250 x .032 6.35 x 0.81	1601159-1 2-1601159-1 <sup>1</sup>	4-1601159-1
nouty runge		14-15 <sup>5</sup>	1.60-1.40	.885 22.48	Hole	.250 x .032 6.35 x 0.81	1601161-1 2-1601161-1 <sup>1</sup>	4-1601161-1

1 Reverse Reeled –Consult TE drawing for orientation.
2 Finish is Pre-Plated Tin over Copper (Consult TE drawing for specifics).
3 Finish is Pre-Plated Tin (Consult TE drawing for specifics).
4 Double Carrier Strip.
5 Two magnet wires may be terminated in the same slot if diameters are equal.
6 Magnet wire 30 AWG [0.25 mm] and smaller also requires a wrap post per drawing 1601447.
7 Hole size and position complies with DIN standard.



#### Catalog 82221

#### SIAMEZE Terminals (Continued)

# **Typical Plastic Cavity Pockets**

Note: The overall dimensions shown on these pages are for general reference only. For design purposes refer to the TE Cavity Specification.

Plastic cavities, designed to TE specifications, may be molded as part of the coil bobbin or attached to a lamination stack in the area of the magnet wire coil.

Each cavity is a rectangular box with two narrow slots on opposing walls and a plastic cutoff or tie-off post.

During or after the winding process, the magnet wire is placed across the plastic cavities and into the slots, either manually or by coil winding equipment.

Unraveling is prevented by a slight friction fit, suitable bend or by wrapping the magnet wire around the wrap post.

During insertion, the insulation displacing terminal slot strip the film insulation from the magnet wire producing a stable electrical termination.

Terminal retention is retained in the plastic cavities by single SIAMEZE cavity housings. or multiple barbs (Refer to Product Spec for force requirements).

**.270** 6.86 ]

Min.

**7.01** 

Cavity Specification 1601424

**.104** [ 2.63 ]

Min

**.305** [ 7.75 ]

Min

.104

2.63]

Min.

Excess magnet wire is trimmed flush with the outside of the plastic cavity by a shear blade traveling with the terminal insertion ram.

TE can provide design and mold engineering resources to manufacture most specifically designed



**Cavity Specification 1601421** 







.276

Î 7.01 l

Min



Cavity Specification 1601425



Cavity Specification 1601431

\* Minimum dimension with Lead Lok slot.

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







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**Cavity Specification 1601435** 



Cavity Specification 1601433



**Cavity Specification 1601436** 



Cavity Specification 1601434



Cavity Specification 1601437



**Cavity Specification 1601438** 



.050 [1.27]

Cavity Specification 1601440

Wrap Post Specification 1601447



Cavity Specification 1601475

\* Minimum dimension with Lead Lok slot.

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents. Dimensions are shown for reference purposes only. Specifications subject to change.