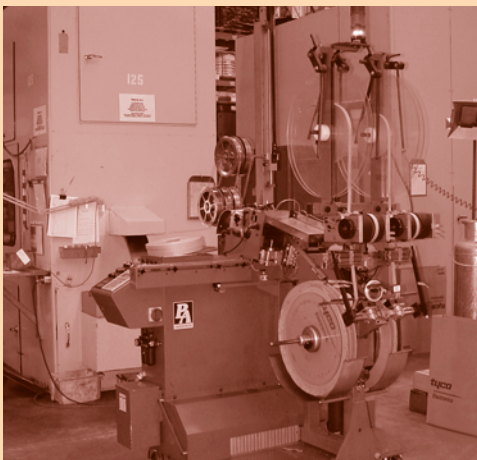
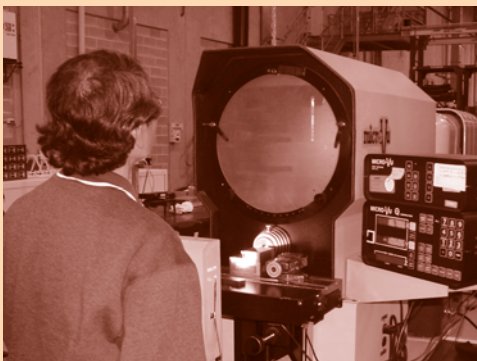




Tyco Electronics Australia/New Zealand Regional Head Office, Kingsgrove (Sydney)



Local design, prototyping & manufacture ensures the highest quality and allows custom designed solutions for specific applications.



Our quality standards and design skills are known and respected around the world, with products designed and made in Australia exported to Asia, Europe and the United Kingdom, where their superior performance enhances the reliability and performance of other well known brands of electrical and electronics equipment and consumer goods.

**Quality, Reliability & Innovation: the hallmarks of Utilux**

[www.tycoelectronics.com.au](http://www.tycoelectronics.com.au)

### **“Clever Solutions for Clever People.”**

We're the world's largest supplier of passive electrical and electronics connectors and electromechanical components. Even though you might not be familiar with our company name or any of our brand names, you've probably used a product that was made less expensive, more reliable, more innovative, smaller, lighter, more powerful or more fully featured through the use of one or more of our products, technologies or services.

### **“Innovations to make your products even better.”**

If you design or build planes, trains or automobiles, telecommunications or energy distribution networks, whitegoods or consumer electronics, machinery or medical equipment, information or point-of-sale systems - in fact, anywhere you need to connect, protect or power an electrical or electronic device, or transmit or switch an electrical or optical signal, or an electric current - we have products and services that can make your products even better.

## **Complete Solutions to:**

# **Terminate Manage**

**Introduction**

**Introduction**
**Using this Catalogue:**

If you design or service electrical or electronics devices, or cars, boats and trains, or any other piece of equipment where you need to terminate, connect, manage and protect wiring looms and cable harnesses, we've got you covered.

Covered in this catalogue are:

- Terminals, Lugs & Connector Systems
- Wire Splices & End Caps
- Heatshrink & Management products
- Terminal Application Tooling
- ...as well as a range of related accessories.

**Searching for a product by its Product Code or Tyco Electronics Part Number?**

Go to the Utilux Product Code & TE Part Number Index at the back of the catalogue (NOTE: base part numbers are used, without prefixes or suffixes; page referred to may contain full part number you are after).

**Can't find the part you need?**

For parts not contained in this catalogue, or for custom-designed and manufactured parts, contact Tyco Electronics.

**Need additional information?**

If you require customer drawings, application or product specifications or instruction sheets, contact your Tyco Electronics Account Manager or your nearest Tyco Electronics Distributor.

**Dimensions:**

- Dimensions are in metric (SI) units, unless otherwise indicated.

Since 1906, Utilux products have set the standard in quality, reliability and innovation. Today, Utilux is one of a stable of leading brands, including AMP and Raychem, that form a Tyco Electronics' complete end-to-end connectivity solutions range.

From terminals and lugs for wire termination, to plug-&-socket connector systems for wire-to-wire and wire-to-device interconnection, to products that hold, bundle, protect and identify wire looms and harnesses, you'll find our range is Australia's largest.

And for manufacturers requiring custom-engineered terminal or connector solutions, our Engineering, Tooling and QA staff in Sydney (Australia), design, create and certify innovative products, including Progressive Stamping Dies for the manufacture of metal terminals and contacts, as well as prototypes of stamped and injection moulded components - a service (and of a quality) you'll not find from any other interconnection systems company in the region.

**Customer Service**

Contact our Customer Service staff for information on distributor locations, drawings/prints, application/product specifications, PCB layouts, technical information, plating data, electrical characteristics, product dimensions, value added services, and 3D modelling/simulation capabilities.

They can also assist with the selection of hand tools, as well as provide information on maintenance, adjustment and repair of your application tools.

**To contact us:**
**Via Phone:**

**In Australia:**  
**1800 00 TYCO** (that's 1800 00 8926)

**In New Zealand:**  
**09 634 4580** (Auckland Sales Office)

**Via Email:**

[gic.anz@tycoelectronics.com](mailto:gic.anz@tycoelectronics.com)

**Via the Internet:**

[www.tycoelectronics.com.au/contact\\_us](http://www.tycoelectronics.com.au/contact_us)

**Connect  
Protect**

**Introduction**

**Products**

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## Products

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# Good Crimping Practices

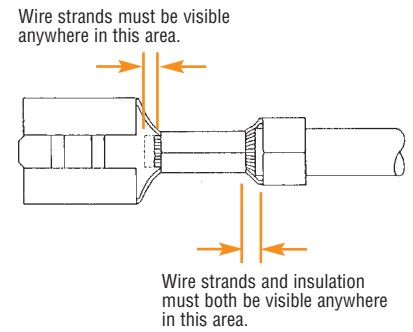
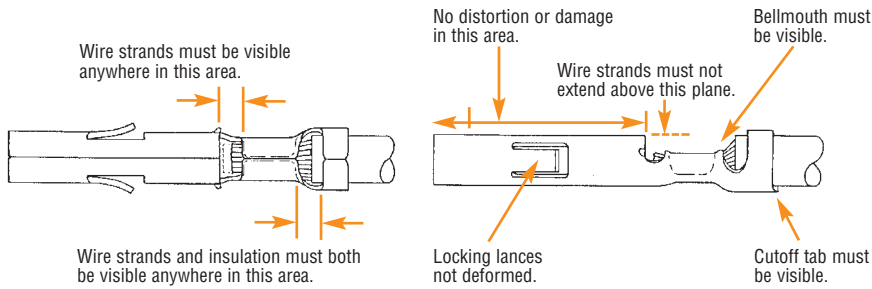
## Open Barrel

### Terminations Acceptable

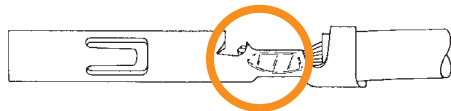


Pin Terminals

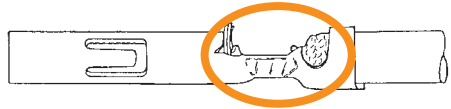
Blade, Ring, Fork (etc) Terminals



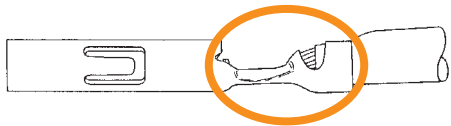
### Terminations Unacceptable



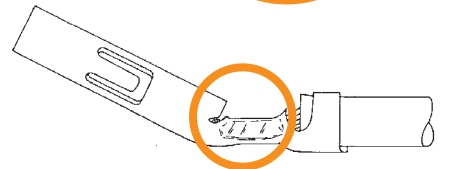
Bellmouth on wrong end of wire barrel – long cutoff tab.  
 CAUSE: Strip guide plate screw out of adjustment.



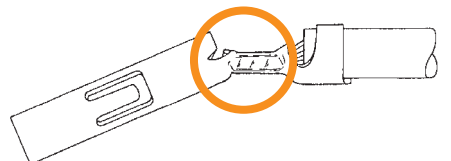
Wire located too far through wire barrel.  
 CAUSE: Strip length too long. Incorrect wire protrusion at applicator



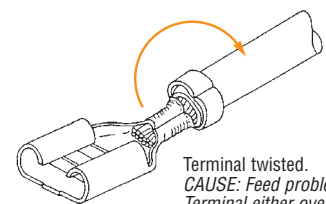
Large bellmouth – no cutoff tab.  
 CAUSE: Incorrectly adjusted strip guide plate screw. Incorrect wire and insulation disk settings. Wrong terminal in applicator



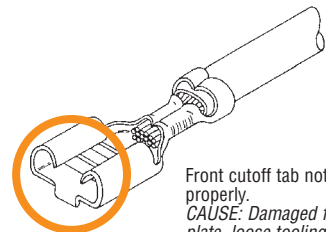
Terminal bent upward.  
 CAUSE: Incorrectly adjusted terminal holddown.



Terminal bent downward.  
 CAUSE: Damaged or worn tooling. Lack of terminal lubrication (metals such as gold, nickel, silver, and steel require lubrication for termination).



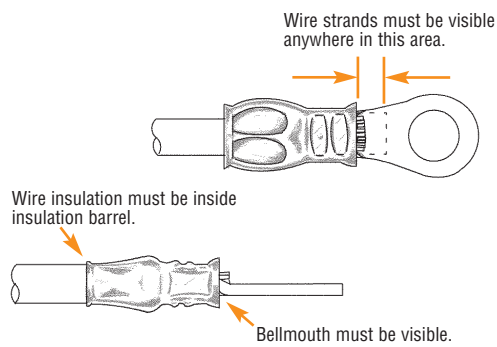
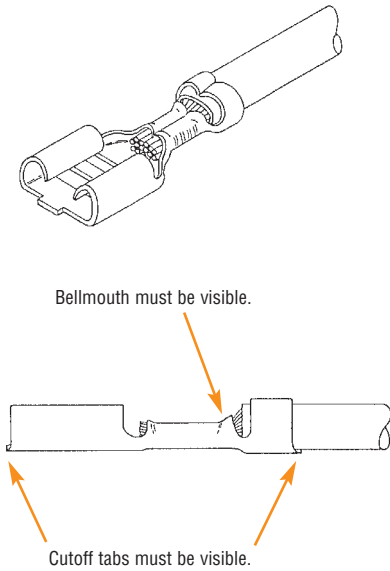
Terminal twisted.  
 CAUSE: Feed problem. Terminal either overfed or underfed.



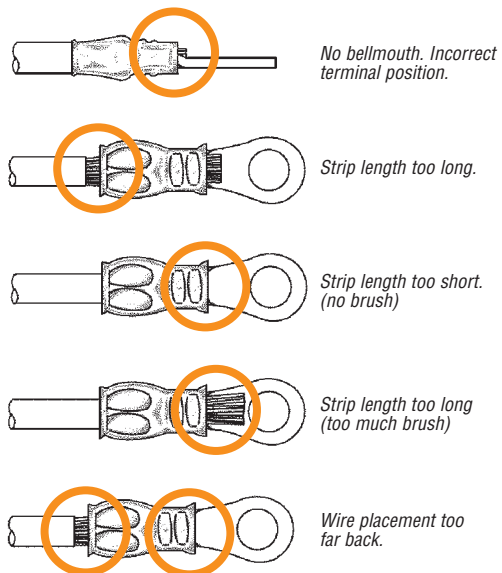
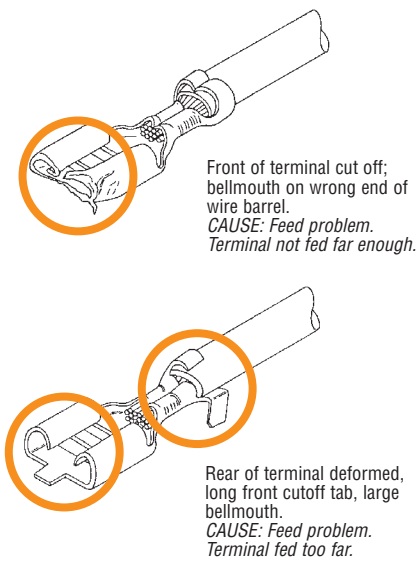
Front cutoff tab not sheared properly.  
 CAUSE: Damaged front shear plate, loose tooling, incorrect tooling, damaged shear blade, or damaged slug blade.

## Closed Barrel

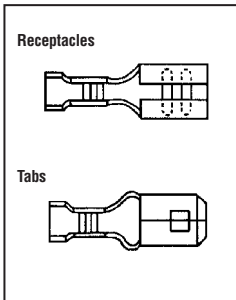
### Terminations Acceptable



### Terminations Unacceptable



AMP, UTILUX and Tyco are trademarks.

**Introductory Notes**

**Testing:**

Tyco Electronics undertakes continuous sample testing to ensure our products perform to specifications. Terminal testing includes millivolt drop test, temperature rise and voltage withstand testing, etc.

**Dimensions & Units of Measure:**

Wire sizes are shown in metric (SI) units. However, where these have been converted from inches (Imperial units) or AWG (American Wire Gauge), the metric units are approximate only (to within 1 decimal place).

**Standards & Certification:**

Many of our products are listed by Underwriters Laboratories Inc., and the Canadian Standards Association. Ask your Tyco electronics representative for details.

Utilux Quick Connect (QC) terminals are manufactured to Australian Standard AS3169-1982 and American N.E.M.A. Standards. In general, the following specifications apply:

**Maximum Operating Temperature - Receptacles & Tabs**

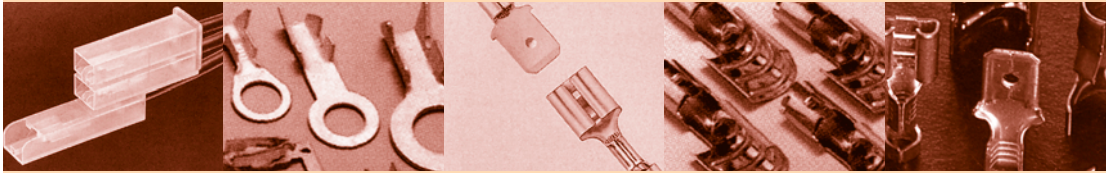
Natural Brass	90 <sup>o</sup>
Tin Plated Brass	110 <sup>o</sup>
Nickel Plated Brass	175 <sup>o</sup>
Silver Plated Brass	150 <sup>o</sup>
Nickel Silver	200 <sup>o</sup>
Nickel Plated Steel	250 <sup>o</sup>
Stainless Steel	300 <sup>o</sup>

**Current Ratings & Application-Retention Values for Mated Brass Terminals (Receptacles & Tabs)**

Terminal Size (mm)	Current Rating (amps)	Max. Initial Insertion Force, unplated (N)	Min. Tenth Withdrawal Force (N)
2.4	7.5	40	6
2.8	7.5	40	6
4.8	10.0	50	10
6.3	20.0	60	18
9.5	30.0	80	30

**Mechanical Strength of Crimped Conductors (Newtons)**

Tab Size (mm)	Cable Size (mm <sup>2</sup> )							
	0.25-0.49	0.50-0.74	0.75-0.99	1.0-1.4	1.5-2.4	2.5-3.9	4.0-5.9	6-10
2.4	40	60	70	-	-	-	-	-
2.8	40	60	70	80	-	-	-	-
4.8	40	80	120	160	200	250	-	-
6.3	40	80	120	160	200	250	350	-
9.5	-	-	-	-	-	-	-	500

**Uninsulated Terminals**

**Products covered in this Section:**

- Quick Connect (QC) & Eze-On Terminals
- Insulators for QC & Eze-On Terminals
- Pin Terminals
- Bullet Terminals
- Ring/Eye Terminals
- Slotted/Fork Terminals
- Flag Terminals
- Bootlace Terminals
- Specialty Terminals (Distributor Terminals, etc)
- Crimp Splice Terminals

We offer Australia's leading range of terminals, with the names UTILUX and AMP being synonymous with quality, reliability, range and value-for-money. For manufacturers of Industrial Equipment, to Service and Repair needs, our terminals set the standard.

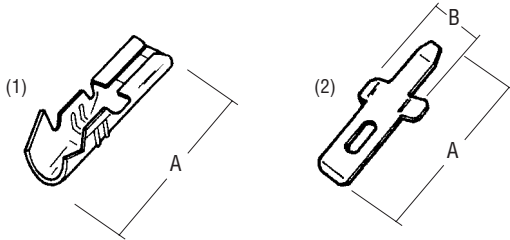


## Quick connect (QC) & Eze-On Terminals

### Overview:

Utilux terminals are renowned for their quality and reliability. To ensure you always achieve the best result, use only Utilux application tooling (refer section 8).

**Note: MOQs apply (may be greater than Pack/Reel Sizes listed here). Confirm these prior to ordering (may change from time to time).**



### 2.3mm Micro-QC Terminals

Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support</b>								
H1129 <sup>(1)</sup>	Brass	0.3-0.7	1.5-2.4	0.4	12.6	-	1-1627009-0	Reel of 7,000
H1129ET <sup>(1)</sup>	Tin Plated Brass	0.3-0.7	1.5-2.4	0.4	12.6	-	1-1627009-1	Reel of 7,000

#### Notes:

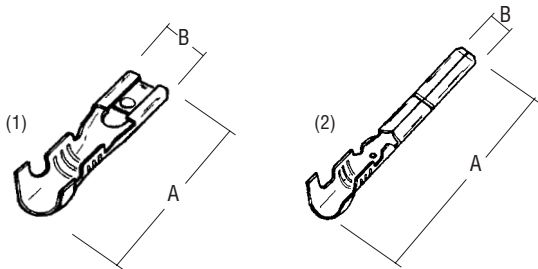
- accept 0.8mm thick tabs

#### Tabs - with straight insulation support

H2880 <sup>(2)</sup>	Brass	-	-	0.8	11.7	4.3	1-1627136-2	Box of 5,000
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#### Notes:

- Stud size = 2.4x1  
- Angle = flat



### 2.3mm Micro-QC Automotive Terminals

Product Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support</b>							
H25106 <sup>(1)</sup>	0.3	1.8	0.25	17.2	3.0	1-1659239-0	Reel of 5,000
H25107 <sup>(1)</sup>	0.5-1.25	1.8	0.25	17.2	3.0	1-1659240-0	Reel of 5,000

#### Notes:

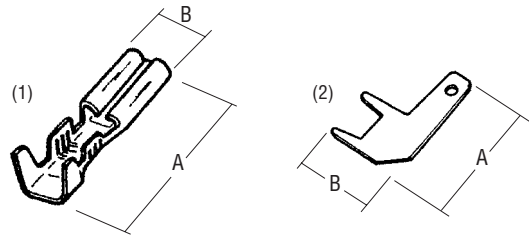
- use #147A tool  
- all terminals made of Tin Plated Brass

#### Tabs - with straight insulation support

H25103 <sup>(2)</sup>	0.3	1.8	0.3	26.7	2.3	1-1659237-0	Reel of 5,000
H25104 <sup>(2)</sup>	0.5-1.25	1.8	0.3	26.7	2.3	1-1659238-0	Reel of 5,000

#### Notes:

- use #147A tool  
- all terminals made of Tin Plated Brass

**QC & Eze-On Terminals (cont'd)**

**2.8mm QC Terminals**

Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Thickness (mm)	Length A (mm)	Width B (mm)	Height C (mm)	Notes	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support; to suit 0.5mm tabs</b>									
H1144B <sup>(1)</sup>	Nickel Silver	0.5-1.6	0.3	15.2	3.7	2.9	high temp	1-1659192-0	Reel of 6,000
H25025 <sup>(1)</sup>	Tin Plated Brass	0.3-1.6	0.25	15.2	3.7	2.9	-	1-1627080-0	Reel of 6,000

**Receptacle - with straight insulation support; to suit 0.8mm tabs**

H1144BX01 <sup>(1)</sup>	Nickel Silver	0.2-0.6	0.3	15.2	3.7	2.9	high temp	1-1659192-1	Reel of 6,000
H25031 <sup>(1)</sup>	Tin Plated Brass	0.3-1.6	0.25	15.2	3.8	2.9	-	1-1627081-0	Reel of 6,000

**Notes:**

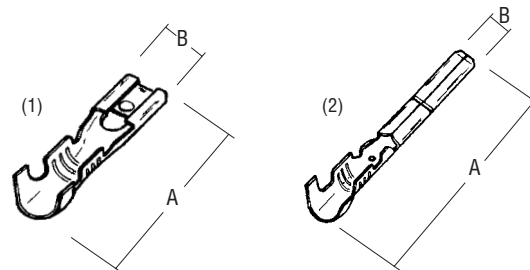
- Insulators to suit = continuous strip H2800 & H30400

**Tabs - PCB mount**

H25000 <sup>(2)</sup>	Tin Plated Brass	-	0.5	13.5	8	-	PCB mount	1-1627079-1	Box Of 1,000
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**Notes:**

- use #147A tool


**3.0mm QC Terminals**

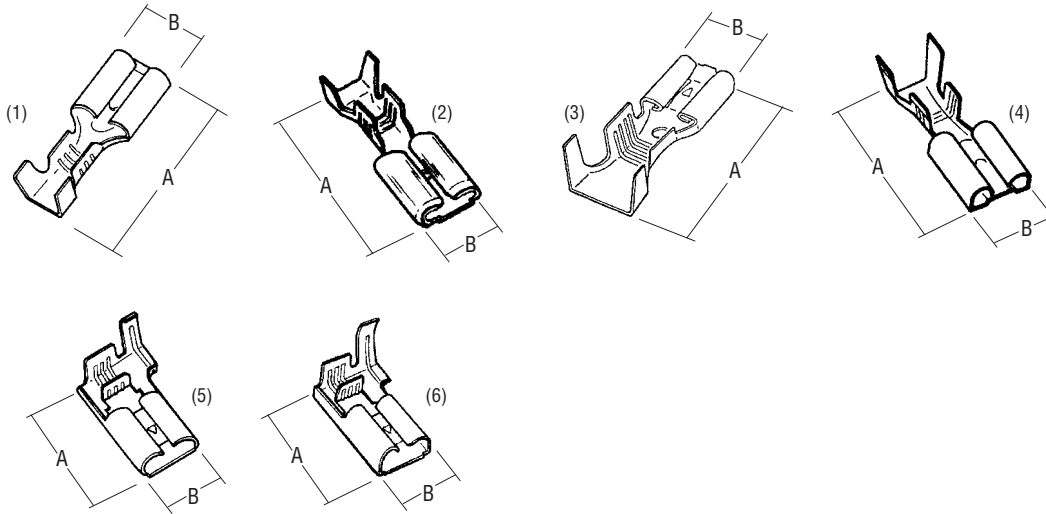
Product Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support</b>							
H25201 <sup>(1)</sup>	0.75-1.5	3.0	0.38	17.5	4.0	1-1659242-0	Reel of 3,500
H25203 <sup>(1)</sup>	0.2-0.6	2.2	0.38	17.5	4.0	1-1659244-0	Reel of 3,500

**Tabs - with straight insulation support**

H25200 <sup>(2)</sup>	0.75-1.5	3.0	0.3	28.0	3.0	1-1659241-0	Reel of 8,000
H25202 <sup>(2)</sup>	0.2-0.5	2.2	0.3	28.0	3.0	1-1659243-0	Reel of 8,000

**Notes:**

- all terminals made of Tin Plated Brass
- all terminals are Lanceless
- use #17 tool for H25201 & H25200
- use 147A tool for H25203 & H25202

**QC & Eze-On Terminals (cont'd)**

**4.8mm QC Terminals**

Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Insulators	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support; to suit 0.5mm tabs</b>										
H1143 <sup>(1)</sup>	Brass	0.4-1.5	3.3	0.3	15.4	5.8	-		1-1627015-1	Reel of 4,000
H2590 <sup>(2)</sup>	Brass	0.4-1.5	3.3	0.4	15.4	5.8	-	H2088	1-1627099-0	Reel of 8,000
H2590ET <sup>(2)</sup>	Tin Plated Brass	0.4-1.5	3.3	0.4	15.4	5.8	-		1-1627099-3	Reel of 8,000
H2590B <sup>(2)</sup>	Nickel Silver	0.4-1.5	3.3	0.4	15.4	5.8	high temp	H2801	1-1627099-2	Reel of 8,000
H25440 <sup>(3)</sup>	Tin Plated Brass	2x 0.3	2x2.8	0.4	16.8	5.8	2 wire		1-1659245-0	Reel of 6,000

**Notes:**

- use #61 tool
- for H25440, use #65 tool

**Receptacles - with straight insulation support; to suit 0.8mm tabs**

H1968 <sup>(4)</sup>	Tin Plated Brass	0.4-1.5	3.3	0.3	15.4	5.8	-	H2088	1-1627055-0	Reel of 4,000
H3710BX01 <sup>(4)</sup>	Nickel Silver	0.4-1.5	3.2	0.4	15.4	5.8	high temp		1-1659396-0	Reel of 8,000

**Notes:**

- use #61 tool

**Receptacles - with flag insulation support; to suit 0.5mm tabs**

H1145 <sup>(5)</sup>	Brass	0.4-1.0	3.3	0.4	12.6	5.8	-		1-1627016-0	Reel of 3,000
H1145ET <sup>(5)</sup>	Tin Plated Brass	0.4-1.0	3.3	0.4	12.6	5.8	-	H30801	1-1627016-3	Reel of 3,000
H1145B <sup>(5)</sup>	Nickel Silver	0.4-1.0	3.3	0.4	12.6	5.8	high temp		1-1627016-2	Reel of 3,000

**Notes:**

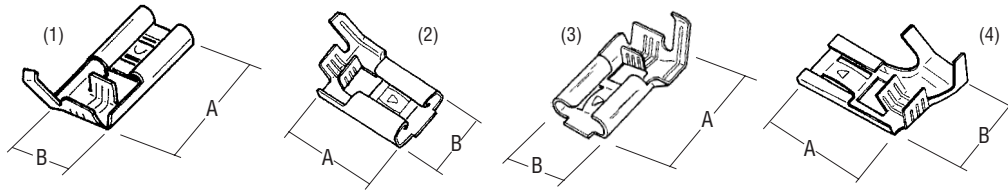
- use #147A tool

**Receptacles - with flag insulation support; to suit 0.8mm tabs**

H25411 <sup>(6)</sup>	Tin Plated Brass	0.4-1.0	3.3	0.4	12.6	5.8	-	H30801	1-1627087-0	Reel of 3,000
H25411X01 <sup>(6)</sup>	Brass	0.4-1.0	3.3	0.4	12.6	5.8	LIF		1-1627087-1	Reel of 3,000

**Notes:**

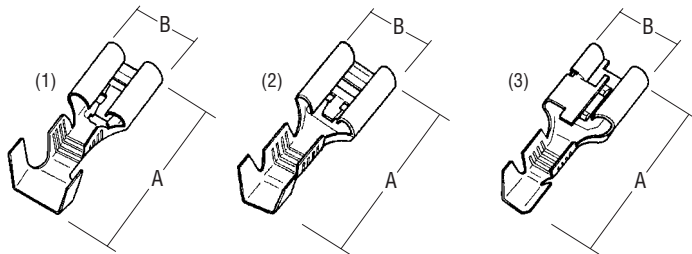
- LIF = Low Insertion Force
- use #147A tool
- H25411 with heightened rails

**QC & Eze-On Terminals (cont'd)**

**6.3mm Flag Terminal Receptacles**

Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Insulators	Part Nos	Reel/Pack size
<b>Flag Terminals - with insulation support</b>										
H1191 <sup>(1)</sup>	Brass	0.7-1.5	3.8	0.45	15.1	8.5	-	H2809	1-1627024-1	Reel of 2,500
H1191ET <sup>(1)</sup>	Tin Plated Brass	0.7-1.5	3.8	0.45	15.1	8.5	-	H2818	1-1627024-5	Reel of 2,500
H1191B <sup>(1)</sup>	Nickel Silver	0.7-2.1	3.8	0.45	15.1	8.5	-	H30008	1-1627024-2	Reel of 2,500
H2591 <sup>(2)</sup>	Brass	0.5-1.0	3.2	0.4	14.2	8.6	-	H2818	1-1627100-2	Reel of 2,500
H2591ET <sup>(2)</sup>	Tin Plated Brass	0.5-1.0	3.2	0.4	14.2	8.6	-	H30008	1-1627100-1	Reel of 2,500
H2592ET <sup>(2)</sup>	Tin Plated Brass	2x0.5-2.5	4.3	0.45	15.8	12.9	-	H2095	1-1627101-4	Reel of 1,300
H2592B <sup>(2)</sup>	Nickel Silver	2x0.5-2.5	4.3	0.45	15.8	12.9	-		1-1627101-2	Reel of 1,300
H2593 <sup>(3)</sup>	Brass	0.7-2.1	4.0	0.45	14.2	8.6	-		1-1627102-3	Reel of 2,500
								H2809	1-1627102-2	Box of 5,000
H2593ET <sup>(3)</sup>	Tin Plated Brass	0.7-2.1	4.0	0.45	14.2	8.6	-	H2818	1-1627102-4	Reel of 2,500
H2593B <sup>(3)</sup>	Nickel Silver	0.5-2.1	4.0	0.45	14.2	8.6	-	H30008	1-1627102-1	Reel of 2,500
H3575ET <sup>(4)</sup>	Tin Plated Brass	2x0.5-2.5	2x3.3	0.45	15.0	11.7	2 wire, high temp		3-0279465-8	Reel of 3,000

**Notes:**

- use #147A tool


**6.3mm QC Terminal Receptacles**

Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Insulators	Part Nos	Reel/Pack size
<b>Lanced type for Lanced QC Connector System</b>									
H2840ET <sup>(1)</sup>	Tin Plated Brass	2x 0.7-1.1	2x 3.4	0.4	19.9	7.6		1-0279506-0	Reel of 1,800
H3555 <sup>(2)</sup>	Brass	0.6-1.5	3.9	0.3	19.8	7.5		1-1627154-0	Box of 1,000
							H3321	1-1627154-1	Reel of 8,000
							H3322	1-1627154-4	Box of 10,000
							H3324	1-1627154-5	Pack of 150
							H3327	1-1627154-6	Box of 5,000
H3555ET <sup>(2)</sup>	Tin Plated Brass	0.6-1.6	3.10	0.4	19.9	7.6		1-1627154-2	Reel of 8,000
H3702 <sup>(2)</sup>	Brass	0.3-0.7	2.8	0.3	19.8	7.5		1-1627161-2	Reel of 8,000
H3702ET <sup>(2)</sup>	Tin Plated Brass	0.3-0.8	2.9	0.4	19.9	7.6		1-1627161-1	Reel of 8,000

**Notes:**

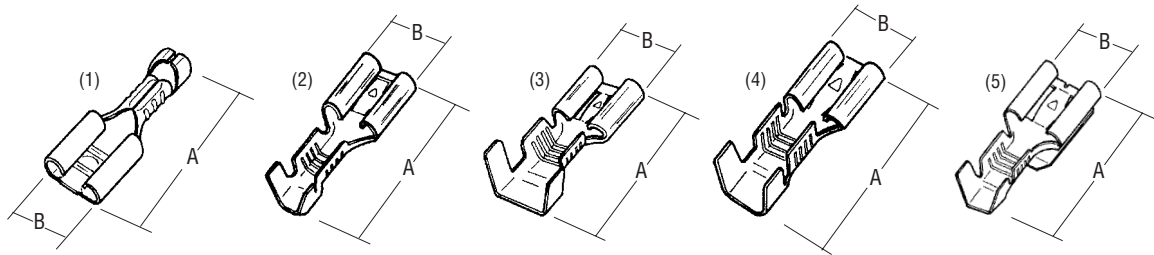
 - use #17 tool for H3555, H3555ET  
 - use #65 tool for H2840ET

**Pivot Lok type for Lanced QC Connector System**

H25734 <sup>(3)</sup>	Tin Plated Brass	0.5-1.0	2.6	0.4	19.8	7.5	H30004	1-1659250-0	Reel of 8,000
H25735 <sup>(3)</sup>	Tin Plated Brass	1.0-1.5	3.0	0.4	19.8	7.5	H30011	1-1627095-0	Reel of 8,000

**Notes:**

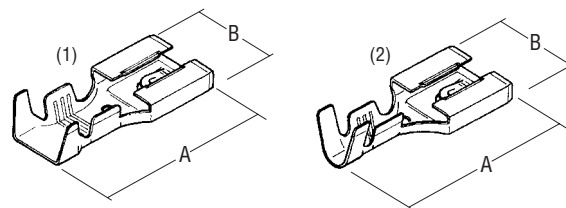
- use #17 or #61 tools

**QC & Eze-On Terminals (cont'd)**

**6.3mm QC Terminal Receptacles**

Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Insulators	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support</b>										
H953 <sup>(1)</sup>	Brass	0.7-2.1	3.55	0.45	19.8	7.5	pre-formed crimp		3-1661590-3	Pack of 150
H953B <sup>(1)</sup>	Nickel Silver	0.7-2.1	3.55	0.45	19.8	7.5	pre-formed crimp, high temp		1-1627194-0	Box of 5000
H1971 <sup>(2)</sup>	Brass	0.5-1.0	2.8	0.45	19.8	7.5	-	Pre-fit type: H1135	1-1627194-2	Pack of 150
H1971ET <sup>(2)</sup>	Tin Plated Brass	0.5-1.0	2.8	0.45	19.8	7.5	-		1-1627194-1	Box of 1,000
H1972 <sup>(2)</sup>	Brass	0.7-2.1	4.0	0.45	19.8	7.5	-	H1139	1-1627057-1	Pack of 150
H1972ET <sup>(2)</sup>	Tin Plated Brass	0.7-2.1	4.0	0.45	19.8	7.5	-	Post-fit type: H2799	1-1627057-7	Box of 10,000
H1972B <sup>(2)</sup>	Nickel Silver	0.7-2.1	4.0	0.45	19.8	7.5	high temp		1-1627057-4	Reel of 8,000
H1973 <sup>(3)</sup>	Brass	2x 0.5-2.0	2x 3.3	0.45	19.8	7.5	2 wire	H2802	1-1627057-6	Reel of 8,000
H1973ET <sup>(3)</sup>	Tin Plated Brass	2x 0.5-2.0	2x 3.3	0.45	19.8	7.5	2 wire		1-1627057-9	Pack of 150
H1973B <sup>(3)</sup>	Nickel Silver	2x 0.5-2.0	2x 3.3	0.45	19.8	7.5	2 wire, high temp	H2803	1-1627057-5	Reel of 8,000
H1974ET <sup>(4)</sup>	Tin Plated Brass	2.5-5.3	4.9	0.45	19.8	7.5	-	H2804	1-1627058-1	Reel of 7,000
H2833 <sup>(5)</sup>	Brass	1.0-1.5	3.9	0.40	19.6	7.5	piggyback		1-1627058-3	Reel of 7,000
H2833ET <sup>(5)</sup>	Tin Plated Brass	1.0-1.5	3.9	0.40	19.6	7.5	piggyback		1-1627058-4	Reel of 7,000
H2833B <sup>(5)</sup>	Nickel Silver	1.0-1.5	3.9	0.40	19.6	7.5	piggyback, high temp		1-1627059-1	Reel of 6,000
									1-1627134-4	Reel of 1,800
									1-1627134-3	Reel of 1,800
									1-1627134-2	Reel of 1,800

**Notes:**

- use #17 or #61 tools

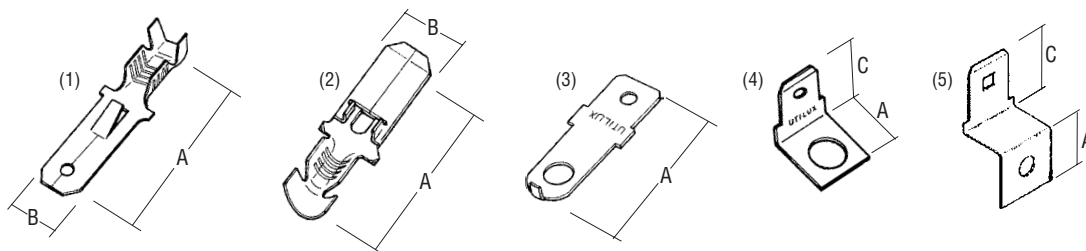

**6.3mm Eze-On (Low Insertion Force) Terminals**

Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Insulators	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support</b>									
H25901 <sup>(1)</sup>	Brass	0.5-1.0	0.4	17.8	7.4	-		1-1659251-0	Reel of 8,000
H25905 <sup>(1)</sup>	Tin Plated Brass	0.5-1.0	0.4	17.8	7.4	-		1-1659252-0	Reel of 8,000
H25906 <sup>(1)</sup>	Tin Plated Brass	1.0-1.5	0.4	17.8	7.4	-	H30013	1-1659253-0	Reel of 8,000
H25910 <sup>(1)</sup>	Brass	1.0-1.5	0.4	17.8	7.4	high temp		1-1659254-0	Reel of 8,000
H25930 <sup>(2)</sup>	Brass	2x 0.75-1.0	0.4	17.8	7.4	twin wire		1-0279509-0	Reel of 8,000
H25931 <sup>(2)</sup>	Tin Plated Brass	2x 0.75-1.0	0.4	17.8	7.4	twin wire		1-1659256-0	Reel of 8,000

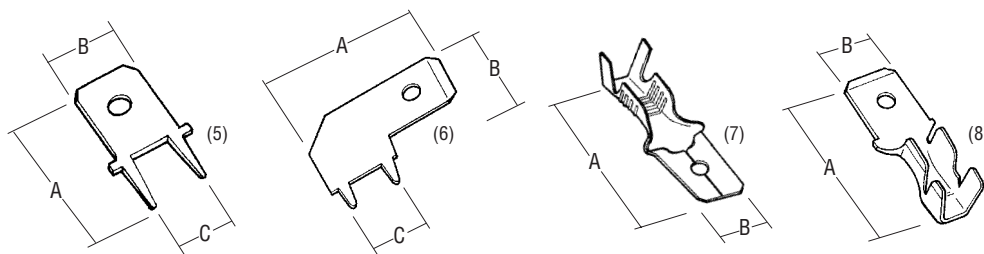
**Notes:**

- use #17 tool for H25901, H25905, H 25906, H25910

- use #65 tool for H25930, H25931

**QC & Eze-On Terminals (cont'd)**

**6.0mm & 6.3mm QC Terminal Tabs**

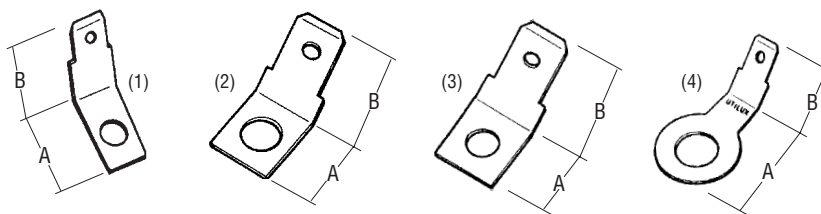
Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Stud/Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Height C (mm)	Notes	Part Nos	Reel/Pack size
<b>6.0mm &amp; 6.3mm QC Terminal Tabs</b>											
<b>6.0mm QC Terminal Tabs</b>											
<b>6.3mm QC Terminal Tabs</b>											
<b>6.0mm Eze-On Terminal Tabs</b>											
<b>6.3mm Eze-On Terminal Tabs</b>											
<b>6.0mm &amp; 6.3mm QC Terminal Tabs - with straight insulation support; to suit Lanced &amp; Lanceless QC Connector System (see also Sectn 3)</b>											
H2832 <sup>(1)</sup>	Brass	0.7-2.1	3.0	-	0.4	24.5	6.0	-	Lanced/ Lanceless	1-1627133-2 1-1627133-0 1-1627133-6	Reel of 7,000 Box of 1,000 Boc of 10,000
H2832ET <sup>(1)</sup>	Tin Plated Brass	0.7-2.1	3.0	-	0.4	24.5	6.0	-	Lanced/ Lanceless	1-1627133-3	Reel of 7,000
H25702 <sup>(2)</sup>	Brass	0.3-1.3	2.7	-	0.8	24.5	6.0	-	Lanceless	1-1659248-0	Reel of 7,000
<b>6.0mm &amp; 6.3mm QC Terminal Tabs - with mounting hole; straight</b>											
H1916F <sup>(3)</sup>	Brass	-	-	3.2	0.8	21.2	-	-	-	1-1659211-0	Box of 1,000
<b>6.0mm &amp; 6.3mm QC Terminal Tabs - 90° angled</b>											
H1169AET <sup>(4)</sup>	Brass	-	-	3.6	0.8	9.5	-	11.8	-	1-1627022-2	Box of 5,000
H1183ET <sup>(5)</sup>	Tin Plated Brass	-	-	3.2	0.8	8.0	-	8.0	-	1-1627023-1	Box of 500



Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Height C (mm)	Notes	Part Nos	Reel/Pack size
<b>6.0mm &amp; 6.3mm QC Terminal Tabs - PCB type</b>										
H25706 <sup>(5)</sup>	Tin Plated Brass	-	-	0.8	14.0	8.0	5.0	-	1-1627334-0	Box of 1,000
H25707 <sup>(6)</sup>	Tin Plated Brass	-	-	0.8	16.2	12.0	5.0	-	1-1659249-0	Box of 1,000
<b>6.0mm &amp; 6.3mm QC Terminal Tabs - Crimp type</b>										
H1192 <sup>(7)</sup>	Brass	0.7-2.1	3.7	Tab 0.8/ Mat 0.4	19.8	6.3	-	pre-tubed vers is H3603	1-1627025-0	Reel of 4,000
H1192ET <sup>(7)</sup>	Tin Plated Brass	0.7-2.1	3.7	Tab 0.8/ Mat 0.4	19.8	6.3	-	pre-tubed vers is H3603	1-1627025-2	Reel of 4,000
H1192B <sup>(7)</sup>	Nickel Silver	0.7-2.1	3.7	Tab 0.8/ Mat 0.4	19.8	6.3	-	high temp	1-1627025-1	Reel of 4,000
H1925ET <sup>(8)</sup>	Tin Plated Brass	0.7-2.1	3.7	0.8	19.8	6.3	-	cont strip only	1-1627049-0	Reel of 7,000

**Notes:**

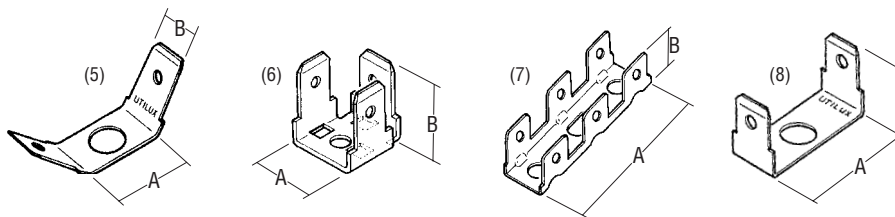
- use #17 or #61 tools

**QC & Eze-On Terminals (cont'd)**

**6.0mm & 6.3mm QC Terminal Tabs (Cont'd)**

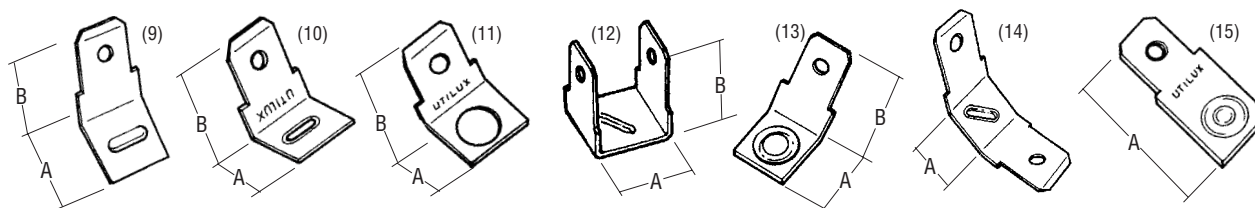
Product Code	Material & Finish	Stud/Hole Size (mm)	Thickness (mm)	Length A (mm)	Height B (mm)	Part Nos	Reel/Pack size
<b>Tabs - with mounting hole; angled</b>							
H1094M <sup>(1)</sup>	S/Steel	6.3	0.8	12.7	16.7	1-1627008-0	Box of 1,000
H1168 <sup>(2)</sup>	Brass	4.9	0.8	8.7	11.1	1-1627021-0 1-1627021-2	Pack of 150 Box of 5,000
H1168E <sup>(2)</sup>	Brass	5.3	0.8	8.7	11.1	1-1627021-1	Pack of 150
H1927 <sup>(3)</sup>	Brass	3.6	0.8	8.7	11.1	1-1627050-0	Box of 1,000
H3579X01 <sup>(4)</sup>	Brass	12.3	0.8	22.3	14.2	1-1659391-0	Box of 1,000

**Notes:**

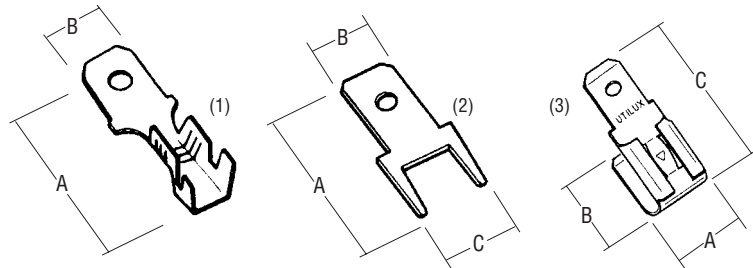
- Angle = 45°



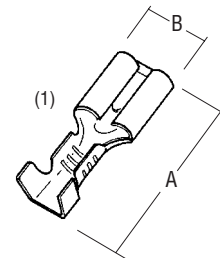
Product Code	Material & Finish	Stud/Hole Size (mm)	Thickness (mm)	Length A (mm)	Height B (mm)	Notes	Part Nos	Reel/Pack size
<b>Tabs - Double type</b>								
H1166ET <sup>(5)</sup>	Tin Plated Brass	4.8	0.8	9.7	7.9	2x45°	1-1659193-0	Box of 5,000
H1906ET <sup>(6)</sup>	Tin Plated Brass	3.3	0.8	9.0	11.9	3x90°	1-1659207-0	Box of 1,000
H1991 <sup>(7)</sup>	Brass	3x 3.3 & 3x 6.6	0.8	30.1	10.8	6x90°	1-1659217-0	Pack of 150
H1999 <sup>(8)</sup>	Brass	4.9	0.8	17.8	12.7	2x90°	1-1627067-0	Box of 1,000



Product Code	Material & Finish	Stud/Hole Size (mm)	Thickness (mm)	Length A (mm)	Height B (mm)	Notes	Part Nos	Reel/Pack size
<b>Tabs - Stainless Steel type</b>								
H946 <sup>(9)</sup>	S/Steel	-	0.8	8.0	11.5	45° Welding Rib	1-1627192-3 1-1627192-4	Box of 1,000 Box of 5,000
H946C <sup>(9)</sup>	S/Steel	-	0.8	8.0	11.5	30° Welding Rib	1-1627192-2	Box of 5,000
H1064 <sup>(10)</sup>	S/Steel	-	0.8	7.9	11.5	90° Welding Rib	1-1627007-1	Box of 5,000
H1094B <sup>(10)</sup>	S/Steel	4.7	0.8	29.6	7.9	-	1-1627008-1	Box of 1,000
H1169D <sup>(11)</sup>	S/Steel	4.9	0.8	11.0	-	90°	1-1627022-3	Box of 1,000
H1911 <sup>(12)</sup>	S/Steel	-	0.8	7.35	-	2x90° Diagonal Welding Rib	1-1627048-2 1-1627048-3	Box of 5,000 Box of 5,000
H1944 <sup>(13)</sup>	S/Steel	-	0.8	8.0	-	45° Welding Dimple	1-1627051-1	Box of 5,000
H1988 <sup>(14)</sup>	S/Steel	-	0.8	7.1	-	30° Welding Rib, 2 Tabs	1-1627064-0	Box of 5,000
H1992 <sup>(15)</sup>	S/Steel	-	0.8	19.8	-	Welding rib	1-1627065-0	Box of 1,000

**QC & Eze-On Terminals (cont'd)**

**4.8mm QC Terminals**

Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
<b>Tabs - crimp type, 0.8mm</b>									
H3754 <sup>(1)</sup>	Tin Plated Brass	0.4-1.0	2.6	0.8	17.1	4.8	-	1-1659398-0	Reel of 6,000
<b>Notes:</b>									
- use #17 tool									
<b>Tabs - PCB type</b>									
H25400 <sup>(2)</sup>	Tin Plated Brass	height = 5.2mm	-	0.8	12.8	6.5	straight flat	1-1627086-1	Box of 1,000
<b>Notes:</b>									
- use #17 tool									
<b>Tabs - Specials</b>									
H3716B <sup>(3)</sup>	Nickel Silver	height=15.7mm		0.5	6.0	7.5	adaptor = 1x 0.5mm to 2x 0.5mm tabs; high temp	1-1627162-1	Box of 1,000

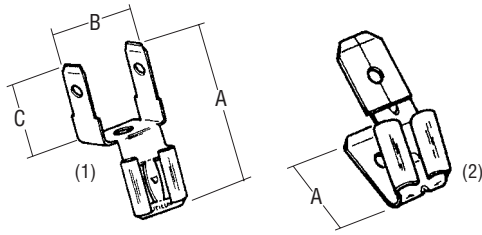

**4.8mm Eze-On Terminals**

Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support; to suit 0.5mm tabs</b>								
H25449 <sup>(1)</sup>	Brass	0.5-1.0	3.3	0.35	15.0	5.8	1-1659246-0	Reel of 8,000
H25450 <sup>(1)</sup>	Tin Plated Brass	0.5-1.0	3.3	0.35	15.0	5.8	1-1627004-0	Reel of 8,000
<b>Receptacles - with straight insulation support; to suit 0.8mm tabs</b>								
H25453 <sup>(1)</sup>	Tin Plated Brass	0.5-1.0	3.3	0.35	15.0	5.8	1-1627005-0	Reel of 8,000

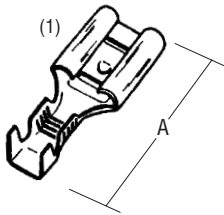
**Notes:**

- use #17 tool
- Eze-On = "low insertion force" type



**QC & Eze-On Terminals (cont'd)**

**6.3mm QC Adapters**

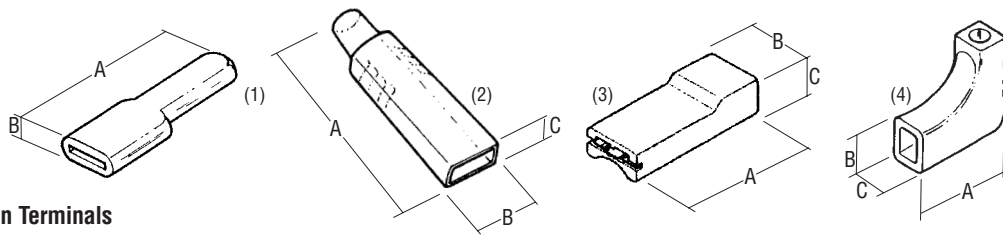
Product Code	Material & Finish	Stud/Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Height C (mm)	Notes	Part Nos	Reel/Pack size
H942 <sup>(1)</sup>	Brass	3.35	0.8	23.2	9.0	12.0	-	1-1627191-1	Pack of 1000
H1909 <sup>(2)</sup>	Brass	1.85	0.8	19.0	-	-	-	1-1627047-4	Pack of 1000
H1909ET <sup>(2)</sup>	Tin Plated Brass	1.85	0.8	19.0	-	-	-	1-1627047-2	Packs of 1000
H1909B <sup>(2)</sup>	Nickel Silver	1.85	0.8	19.0	-	-	high temp	1-1627047-1	Pack of 150


**9.5mm QC Terminals**

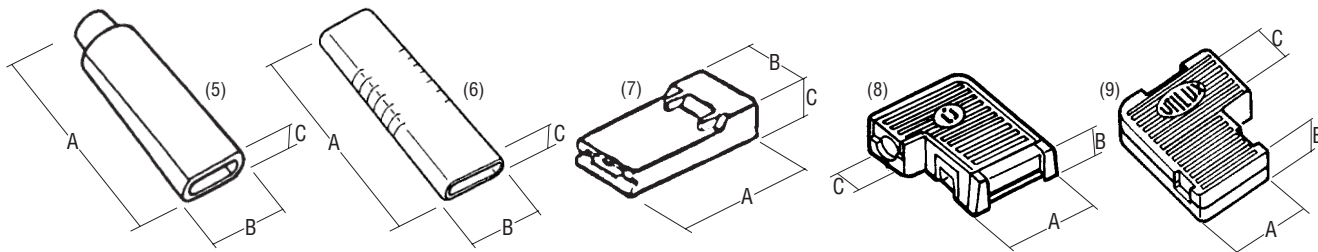
Product Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Notes	Part Nos	Reel/Pack size
<b>Receptacles</b>							
H2837 <sup>(1)</sup>	1.5-5.2	5.0	0.5	26.5	cont strip only	1-1659288-0	Reel of 3,000

**Notes:**

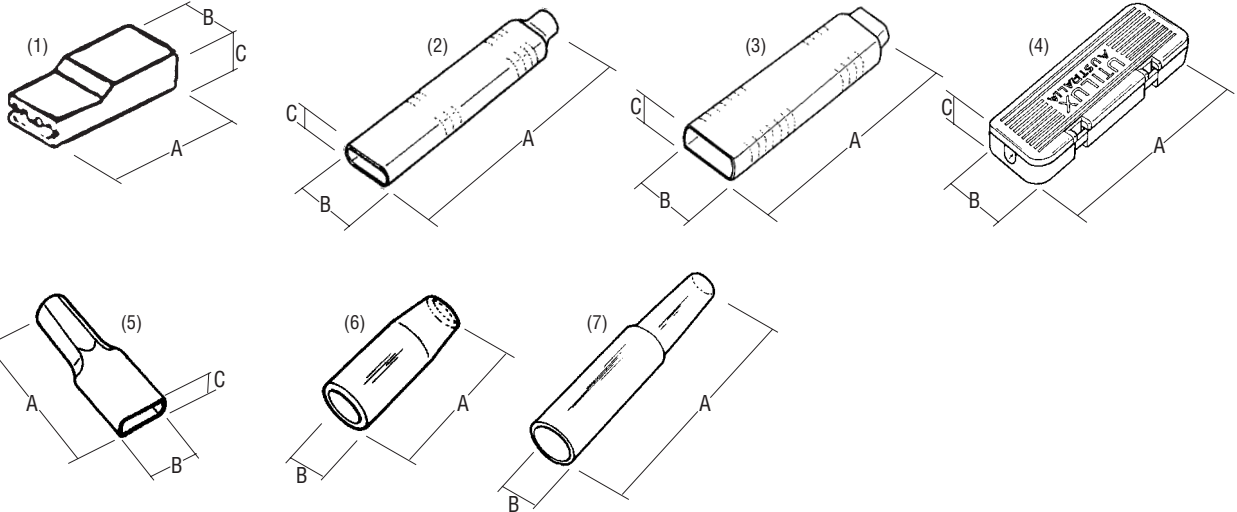
- terminals made of Tin Plated Brass
- use Power Press to apply

**Uninsulated Terminals**
**1**
**Uninsulated Terminals**
**SECTION 1**
**Insulators for QC & Eze-On Terminals**

**Insulators for QC & Eze-On Terminals**

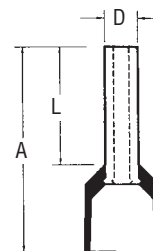
Product Code	Material	Length A (mm)	Width B (mm)	Height C (mm)	Notes	Part Nos	Pack size
<b>For 2.8mm QC - Pre-fit</b>							
H3320 <sup>(1)</sup>	Nylon 66	24.0	8.2	2.8	Prevents tab being painted; suits 6.3mm Tab	1-1659373-0	Box of 5,000
<b>For 4.8mm QC - Pre-fit</b>							
H2088 <sup>(2)</sup>	PVC	22.6	5.5	4.6	Suits H1143, H1968, H2590; B & C are inside dimensions	1-1627068-1	Box of 5,000
<b>For 4.8mm QC - Post-fit</b>							
H2801 <sup>(3)</sup>	Nylon 66	18.0	7.4	5.4	Suits H2590	1-1627121-1	Box of 5,000
H2801B <sup>(3)</sup>	Nylon 66 (black)	18.0	7.4	5.4	Suits H2590	1-1627121-2	Box of 5,000
<b>For 4.8mm QC flag type - Pre-fit</b>							
H30801 <sup>(4)</sup>	PVC (green)	17.0	8.5	5.5	Suits all 4.8mm Flag Recept.	1-1627148-0 1-1627148-1	Box of 1,000 Box of 5,000



Product Code	Material	Length A (mm)	Width B (mm)	Height C (mm)	Notes	Part Nos	Pack size
<b>For 6.3mm Eze-On - Pre-fit</b>							
H30013 <sup>(5)</sup>	PVC	21.9	9.2	5.7	Suits all 6.3mm Eze-On; cont strip avail	1-1659321-0	Box of 5,000
<b>For 6.3mm QC Receptacles - Pre-fit</b>							
H1135 <sup>(5)</sup>	PVC	27.8	9.5	5.5	Suits all 6.3mm st QC Recept.	1-1627011-0 1-1627011-5	Pack of 150 Box of 5,000
H1139 <sup>(6)</sup>	Nylon 66	27.8	9.5	5.5	Suits all 2 wire 6.3mm st QC Recept.	1-1627014-0 1-1627014-1	Pack of 150 Box of 5,000
<b>For 6.3mm QC Receptacles - Post-fit</b>							
H2799 <sup>(7)</sup>	Glass filled Nylon 66 (black)	24.3	9.4	5.6	Low profile; high temp; suits H1971B/2B/3B/4B/6B, H953B	1-1659281-0	Box of 5,000
H2802 <sup>(8)</sup>	Nylon 66	23.1	9.4	6.6	Low profile; suits H1971/2/3/4, H953	1-1627122-1	Box of 5,000
H2803 <sup>(7)</sup>	Nylon 66	24.3	9.4	5.6	Low profile; suits H1971/2/3/4/6, H953	1-1627123-1	Box of 5,000
H2804 <sup>(7)</sup>	Polypropylene	24.3	9.2	5.6	Low profile; suits H1971/2/3/4/6, H953	1-1659282-0	Box of 5,000
H30009 <sup>(7)</sup>	Zytel FR10 (tan)	24.3	9.2	5.6	Flame retardant; suits H1971/2/3/4/6, H953	1-1627147-0	Box of 5,000
<b>For 6.3mm QC Flag Type Receptacles - Post-fit</b>							
H30008 <sup>(8)</sup>	Zytel FR10 (tan)	17.5	13.6	5.0	Flame retardant; suits H2591/3, H1191, H1969	1-1659318-0	Box of 5,000
H2809 <sup>(8)</sup>	Nylon 66 (black)	17.5	13.6	5.0	Suits H2591/3, H1191, H1969	1-1659283-0	Box of 5,000
H2818 <sup>(8)</sup>	Nylon (clear)	17.5	13.6	5.0	Suits H2591/3, H1191, H1969	1-1627128-1	Box of 5,000
H2095 <sup>(9)</sup>	Glass filled Nylon 66 (black)	10.0	6.4	4.4	High temp; suits H2592	1-1627071-1	Box of 5,000

**Insulators for QC & Eze-On Terminals (cont'd)**

**Insulators for QC & Eze-On Terminals**

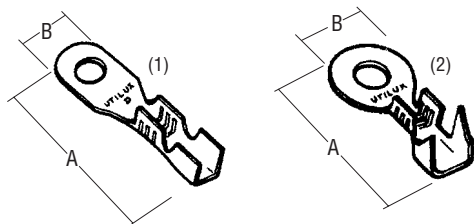
Product Code	Material	Length A (mm)	Width B (mm)	Height C (mm)	Notes	Part Nos	Pack size
<b>For 6.3mm QC straight Pivot Lok type - Pre-fit</b>							
H30011 <sup>(1)</sup>	Zytel FR10	23.5	9.2	5.9	Suits 25730, Flame retardant	1-1661612-0	Box of 5,000
<b>For 6.3mm QC straight Receptacles &amp; Mated Tabs - Pre-fit</b>							
H1138 <sup>(2)</sup>	PVC	42.0	9.5	5.2	Suits all 6.3mm st Recept.	1-1627013-0 1-1627013-1	Pack of 150 Box of 5,000
H2089 <sup>(3)</sup>	Polypropylene	39.7	8.1	3.6	Suits all 2 wire 6.3mm st Recept.; B & C = inside diam	1-1627069-0 1-1627069-1	Pack of 150 Box of 5,000
<b>For 6.3mm QC Straight Receptacles &amp; Mated Tabs - Post-fit</b>							
H2807 <sup>(4)</sup>	Polypropylene	43.0	14.0	7.5	Suits H1972/3/6	1-1627126-1 1-1627126-2	Box of 1,000 Pack of 300
H2807FR <sup>(4)</sup>	Zytel FR15 Clear	43.0	14.0	7.5		1-1661611-0	Pack of 100
H2815 <sup>(4)</sup>	Nylon 66	43.0	14.0	7.5	Suits H1972/3/6	1-1627127-0	Box of 1,000
H2816 <sup>(4)</sup>	Zytel FR15 Black	43.0	14.0	7.5	Suits H1972/3/6	1-1659285-0	Box of 1,000
<b>For 9.5mm QC - Pre-fit</b>							
H1136 <sup>(5)</sup>	PVC	32.2	13.1	6.7		1-1627012-0 1-1627012-1	Pack of 150 Box of 5,000
<b>Other insulators</b>							
H2805 <sup>(6)</sup>	PVC	14.0	3.5	-	Suits H2781/82, H2805; H2743, H2806 are mated; B = inside diam	1-1627124-1	Box of 5,000
H2806 <sup>(7)</sup>	PVC	33.0	4.6	-	Suits H2743; B=Inside Diam; mates with H2805	1-1627125-1	Box of 5,000

**Bootlace Terminals**

**Bootlace Terminals/Ferrules**

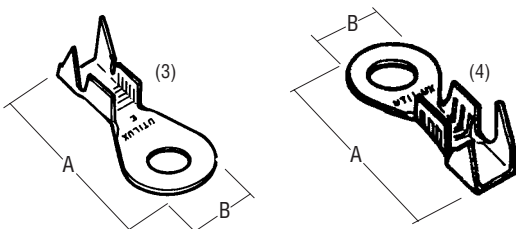
Product Code	Wire Size (mm <sup>2</sup> )	Colour	Length A (mm)	Length F (mm)	Width D (mm)	Width W (mm)	Tool	Part Nos	Reel/Pack size
<b>Bootlace Ferrules</b>									
BLF05	0.5	White	12.0	6.0	1.3	2.6	#112, #125	1-1200102-2	Pack of 100
BLF07	0.75	Blue	12.3	6.0	1.5	2.8	#112, #125	2-1200114-0	Pack of 100
BLF1	1.0	Red	12.3	6.0	1.7	3.3	#112, #125	1-1200119-9	Pack of 100
BLF2	1.5	Black	14.3	8.0	2.0	3.5	#112, #125	-	Pack of 100
BLF3	2.5	Grey	15.4	8.0	2.6	4.0	#112, #125	-	Pack of 100
BLF4	4.0	Orange	16.4	9.0	3.2	4.5	#112, #125, #126	-	Pack of 100
BLF6	6.0	Green	20.5	12.0	3.9	6.0	#112, #125, #126	-	Pack of 100
BLF10	10.0	Brown	20.8	12.0	4.9	7.5	#112, #125, #126	-	Pack of 50
BLF16	16.0	Ivory	22.2	12.0	6.2	8.7	#121	-	Pack of 50
BLF25	25.0	Black	28.0	16.0	7.9	11.0	#121	-	Pack of 25
BLF35	35.0	Beige	30.0	16.0	8.7	12.5	#122	-	Pack of 15
BLF50	50.0	Olive	36.0	20.0	10.9	15.0	#122	-	Pack of 10
BLF70	70.0	Yellow	37.0	20.0	14.3	16.0	#38A	-	Pack of 5
BLF95	95.0	Red	44.0	25.0	15.3	18.5	#38A	-	Pack of 3
BLF120	120.0	Blue	47.6	27.0	17.5	20.3	#38A	-	Pack of 3

**Notes:**

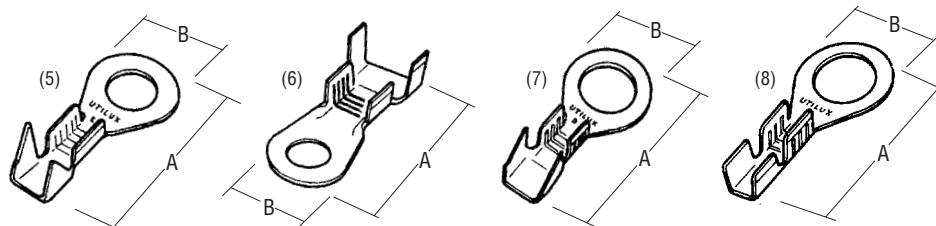
- all terminals made of Tin Plated Copper
- for additional part numbers, contact Tyco electronics

**Ring/Eye Terminals**

**Ring/Eye Terminals with Insulation Support & Open Crimp Barrels**

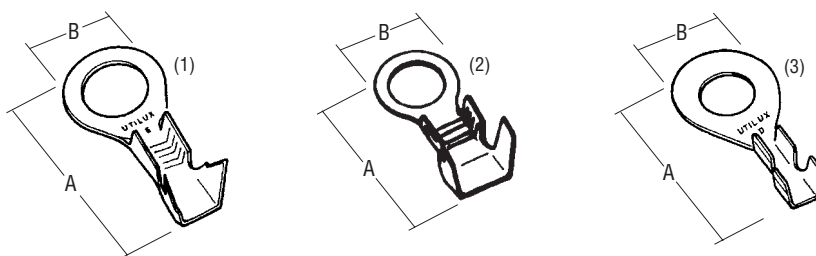
Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
<b>To suit 3mm stud</b>									
H3907 <sup>(1)</sup>	Tin Plated Brass	0.3-0.8	2.2	3.1	0.5	17.5	5.6	1-1659401-0	Reel of 5,000
H3930 <sup>(2)</sup>	Brass	0.4-1.5	3.5	3.4	0.5	17.5	7.6	1-1627169-0	Reel of 4,000
								1-1627169-3	Box of 10,000
H3930ET <sup>(2)</sup>	Tin Plated Brass	0.4-1.5	3.5	3.4	0.5	17.5	7.6	1-1627169-2	Reel of 4,000



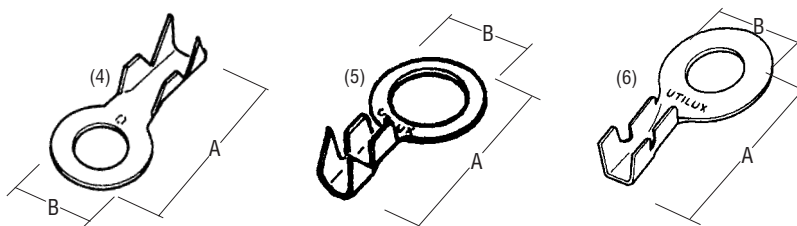
Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
<b>To suit 4mm stud</b>										
H1287 <sup>(3)</sup>	Brass	0.5-2.5	3.9	4.3	0.55	21.4	9.8	Pretube vers is H3548	1-1627030-2	Reel of 2,500
H1287ET <sup>(3)</sup>	Tin Plated Brass	0.5-2.5	3.9	4.3	0.55	21.4	9.8	Pretube vers is H3548	1-1627030-4	Reel of 2,500
H3931 <sup>(4)</sup>	Brass	0.4-1.5	3.5	4.2	0.5	17.5	7.6	Pretube vers is H3605	1-1627170-0	Reel of 4,000
									6-1439840-7	Reel of 4,000
H3931ET <sup>(4)</sup>	Tin Plated Brass	0.4-1.5	3.5	4.2	0.5	17.5	7.6	Pretube vers is H3605	1-1627170-2	Reel of 4,000
H3931B <sup>(4)</sup>	Nickel Silver	0.4-1.5	3.5	4.2	0.5	17.5	7.6	High temp	1-1627170-1	Reel of 4,000



Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
<b>To suit 5mm stud</b>										
H430 <sup>(5)</sup>	Brass	0.5-2.5	3.9	5.3	0.55	21.4	9.7	-	1-1627187-0	Reel of 2,500
									5-1661590-1	Box of 5,000
H430B <sup>(5)</sup>	Nickel Silver	0.5-2.5	3.9	5.3	0.55	21.4	9.7	High temp	1-1627187-2	Reel of 2,500
H430ET <sup>(5)</sup>	Tin Plated Brass	0.5-2.5	3.9	5.3	0.55	21.4	9.7		1-1627187-3	Reel of 2,500
H1856ET <sup>(6)</sup>	Brass	2x 0.5-2.5	4.6	5.0	0.7	21.4	9.5	2 wire	1-1627038-0	Reel of 4500
H3906 <sup>(7)</sup>	Tin Plated Brass	2x 0.2-0.75	2.2	5.0	0.5	17.5	7.5	Suitable for PTFE cable	1-1627167-1	Reel of 5,000
H3932 <sup>(8)</sup>	Brass	0.4-1.0	3.6	5.0	0.5	17.5	7.6	-	1-1627171-1	Reel of 4,000
H3932ET <sup>(8)</sup>	Tin Plated Brass	0.4-1.0	3.6	5.0	0.5	17.5	7.6	-	1-1627171-2	Reel of 4,000

**Ring/Eye Terminals (cont'd)**

**Ring/Eye Terminals with Insulation Support & Open Crimp Barrels**

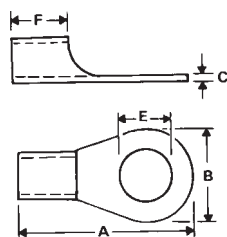
Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
<b>To suit 6mm stud</b>										
H1292 <sup>(1)</sup>	Brass	0.5-2.5	3.9	6.4	0.55	21.4	9.8	-	1-1627032-3	Reel of 2,500
H1292ET <sup>(1)</sup>	Tin Plated Brass	0.5-2.5	3.9	6.4	0.55	21.4	9.8	-	1-1627032-2	Reel of 2,500
H1292B <sup>(1)</sup>	Nickel Silver	0.5-2.5	3.9	6.4	0.55	21.4	9.8	High temp	1-1627032-1	Reel of 2,500
H1857 <sup>(2)</sup>	Brass	2x 0.5-2.5	3.3	6.7	0.7	21.4	9.5	2 wire	1-1659206-0	Reel of 4,500
H1863 <sup>(3)</sup>	Brass	0.4-1.5	3.2	6.6	0.7	24.6	12.7	-	1-1627040-1	Reel of 5,000
H1863ET <sup>(3)</sup>	Tin Plated Brass	0.4-1.5	3.2	6.6	0.7	24.6	12.7	-	1-1627040-3	Reel of 5,000



Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
<b>To suit 8mm stud</b>									
H414A <sup>(4)</sup>	Brass	5.2	4.7	8.3	0.8	29.4	14.3	1-1627186-1	Box of 10,000
								1-1627186-0	Pack of 150
H435A <sup>(5)</sup>	Brass	1.3-2.0	3.3	8.2	0.55	20.6	11.0	5-1661590-2	Pack of 150
								1-0279524-1	Box of 5,000
H1864 <sup>(6)</sup>	Brass	0.4-1.5	3.5	8.2	0.7	24.6	12.7	1-1627041-1	Reel of 5,000
H1864ET <sup>(6)</sup>	Tin Plated Brass	0.4-1.5	3.5	8.2	0.7	24.6	12.7	1-1627041-2	Reel of 5,000

**Notes:**

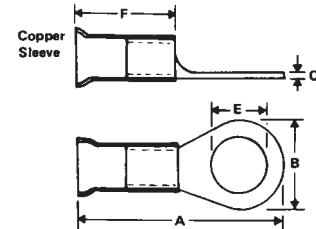
- use #17 or #61 tool
- use only #65 tool on H414A

**Ring/Eye Terminals (cont'd)**

**UTILUG Ring/Eye Terminals with Closed Crimp Barrels**

Product Code	Wire Size (mm <sup>2</sup> )	AWG	Stud Size	Thickness (mm)	Length A (mm)	Width B (mm)	Diam E (mm)	Length F (mm)	Part Nos	Reel/Pack size		
H3110	0.5-1.5	22-16	M1.6	0.7	12.5	5.5	2.5	4.8	1-1659323-0	Pack of 100		
H3111			M3	0.7	12.5	5.5	3.7	4.8	1-1659324-0	Pack of 100		
H3116			M3	0.7	14.4	6.6	3.7	4.8	1-1659329-0	Pack of 100		
H3112			M3	0.7	15.8	8.0	3.7	4.8	1-1659325-0	Pack of 100		
H3113			M4	0.7	14.4	6.6	4.3	4.8	1-1659326-0	Pack of 100		
H3114			M4	0.7	15.8	8.0	4.3	4.8	1-1659327-0	Pack of 100		
H3115			M5	0.7	15.8	8.0	5.3	4.8	1-1659328-0	Pack of 100		
H3117			M5	0.7	21.8	11.6	5.3	4.8	1-1659330-0	Pack of 100		
H3118			M6	0.7	21.8	11.6	6.4	4.8	1-1659331-0	Pack of 100		
H3119			M8	0.7	21.8	11.6	8.4	4.8	1-1659332-0	Pack of 100		
H3140			M10	0.9	25.5	13.6	10.5	4.8	1-1659351-0	Pack of 100		
H3120	1.5-2.5	16-14	M3	0.8	14.4	6.6	3.7	4.8	1-1659333-0	Pack of 100		
H3121			M3	0.8	16.8	8.5	3.7	4.8	1-1659334-0	Pack of 100		
H3122			M4	0.8	14.4	6.6	4.3	4.8	1-1659335-0	Pack of 100		
H3123			M4	0.8	16.8	8.5	4.3	4.8	1-1659336-0	Pack of 100		
H3125			M5	0.8	16.8	8.5	5.3	4.8	1-1659337-0	Pack of 100		
H3126			M5	0.8	16.8	9.5	5.3	4.8	1-1659338-0	Pack of 100		
H3127			M6	0.8	21.8	12.0	6.4	4.8	1-1659339-0	Pack of 100		
H3128			M8	0.8	21.8	12.0	8.4	4.8	1-1659340-0	Pack of 100		
H3129			M10	0.8	25.5	13.6	10.5	4.8	1-1659341-0	Pack of 100		
H3132					M3	1.0	15.7	7.2	3.7	6.0	1-1659344-0	Pack of 100
H3130	2.5-6.0	12-10	M4	1.0	15.7	7.2	4.3	6.0	1-1659342-0	Pack of 100		
H3131			M4	1.0	19.6	9.5	4.3	6.0	1-1659343-0	Pack of 100		
H3133			M5	1.0	19.6	9.5	5.3	6.0	1-1659346-0	Pack of 100		
H3134			M6	1.0	22.5	12.0	6.4	6.0	1-1659347-0	Pack of 100		
H3137			M8	1.0	27.0	15.0	8.4	6.0	1-1659348-0	Pack of 100		
H3138			M10	1.0	27.0	15.0	10.5	6.0	1-1659349-0	Pack of 100		
H3139			M12	1.0	31.6	19.2	13.0	6.0	1-1659350-0	Pack of 100		
H3161					M16	0.9	47.6	31.8	31.8	6.6	3-0279465-1	Pack of 100
H3162					M18	0.9	47.6	31.8	31.8	6.6	1-1659352-0	Pack of 100
H3183					M6	1.2	23.8	12.0	6.4	8.5	1-1659365-0	Pack of 100
H3185A	6.0-8.5	10-8	M10	1.2	29.8	15.0	10.5	8.5	1-1659365-1	Reel of 1,500		
H3187A			M16	1.2	50.0	31.6	15.0	8.5	1-1659366-0	Pack of 100		

**Notes:**

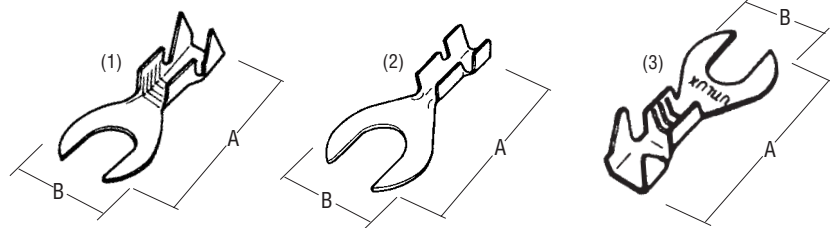
- all terminals made of Tin Plated Copper
- serrated barrel provides secure mechanical and electrical connection
- also available in continuous strip form
- suitable for small flexible cables
- for 22-16AWG, & 16-14AWG terminals, use #00, #76A, #16B, #18 & #63-1 tools
- for 12-10AWG terminals, use #00, #76A, #16B, #18, #63-1, #124 tools
- for 10-8AWG terminals, use #00, #18, #124 tools
- for 5AWG terminals, use #20 tool

**Ring/Eye Terminals (cont'd)**

**UTILUG High Temperature Ring/Eye Terminals with Closed Crimp Barrels**

Product Code	Wire Size (mm <sup>2</sup> )	AWG	Max Insul Diam (mm)	Stud Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Dim E (mm)	Dim F (mm)	Part Nos	Reel/Pack size
H3215	0.5-1.5	22-16	3.6	M5	0.7	19.2	7.9	7.9	9.0	1-1659367-0	Pack of 100
H3223				M4	0.7	22.5	8.7	8.7	11.1	1-1659368-0	Pack of 100
H3225	1.5-2.5	16-14	4.3	M5	0.7	22.5	8.7	8.7	11.1	1-1659369-0	Pack of 100
H3227				M6	0.7	27.8	12.7	12.7	11.1	1-1659370-0	Pack of 100
H3233	2.5-6.0	12-10	6.1	M5	0.9	24.4	9.5	9.5	12.7	1-1200121-3	Pack of 100
H3234				M6	0.9	29.3	12.7	12.7	12.7	1-1659372-0	Pack of 100

**Notes:**

- all terminals are Nickel Plated
- Rated to 280°C
- use # 76B or #16 for H3215, H3223, H3225, H3227
- use # 76B, #16, #18 # or #124 for H3233, H3234

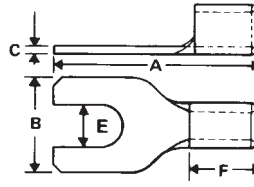
**Fork/Slotted Terminals**

**Fork/Slotted Terminals with Open Crimp Barrels**

Product Code	Material. & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Screw Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
H1289ET <sup>(1)</sup>	Tin Plated Brass	0.5-2.5	3.9	5.3	0.5	20.8	9.8	1-1627031-0	Reel of 2,500
H1863D <sup>(2)</sup>	Brass	0.4-1.5	3.8	6.5	0.7	22.2	12.7	1-1627040-2	Reel of 5,000
H3938 <sup>(3)</sup>	Brass	0.4-1.5	3.0	5.0	0.5	16.8	7.6	1-1627173-0	Reel of 4,000

**Notes:**

- use #17 or #61 tool

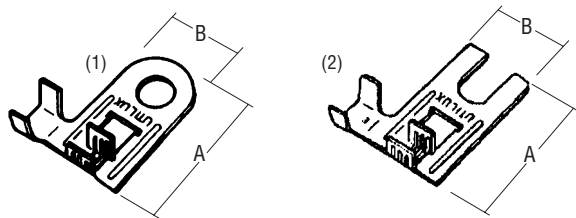


**Fork/Slotted Terminals (cont'd)**

**Fork/Slotted Terminals with Closed Crimp Barrels**

Product Code	Wire Size (mm <sup>2</sup> )	AWG	Stud Size (mm)	Length A (mm)	Width B (mm)	Thickness C (mm)	Diam E (mm)	Length F (mm)	Part Nos	Reel/Pack size
H4312	0.5-1.5	12-16	M3	16.0	6.4	0.7	3.7	4.8	1-1659522-0	Pack of 100
H4314			M4	16.0	7.2	0.7	4.3	4.8	1-1659523-0	Pack of 100
H4315			M5	16.0	8.1	0.7	5.3	4.8	1-1659524-0	Pack of 100
H4317			M5	16.0	9.5	0.7	5.3	4.8	1-1659525-0	Pack of 100
H4321			M3	16.0	6.0	0.8	3.7	4.8	1-1659526-1	Reel of 1,000
	1.5-2.5	16-14							1-1659526-0	Pack of 100
H4323			M4	16.0	7.2	0.8	4.3	4.8	1-1659527-0	Pack of 100
H4326			M5	16.0	9.3	0.8	5.3	4.8	1-1659528-0	Pack of 100
H4332			M3	17.4	7.2	1.0	3.7	6.0	1200099-9	Pack of 100
H4331	2.5-6.0	12-10	M4	18.5	9.0	1.0	4.3	6.0	1-1659529-0	Pack of 100
H4333			M5	18.5	9.0	1.0	5.3	6.0	1-1659530-0	Pack of 100
H4334			M6	24.5	12.0	1.0	6.4	6.0	1-1659531-0	Pack of 100

**Notes:**

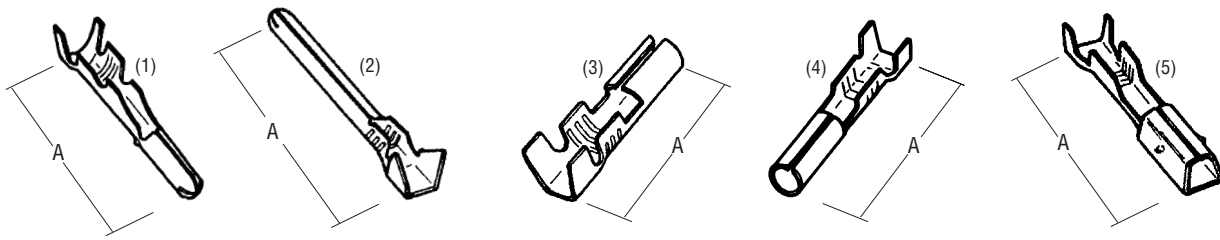
- all terminals made of Tin Plated Copper
- square sides provide a non-turn capability
- suits terminal blocks
- use #00, #16, #63-1, #76B tools for H4312-17
- use #00, #18, #16, #76B tools for H4321-26
- use #00, #16, #63-1, #18, #76B, #124 tools for H4332-34

**Flag Terminals**


Product Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Hole/Slot Diam (mm)	Part Nos	Reel/Pack size
H3509ET <sup>(1)</sup>	0.7-1.2	3.1	0.5	14.2	7.5	4.4	1-1659376-0	Reel of 2,000
H3504ET <sup>(2)</sup>	0.7-2.1	-	0.5	14.2	7.5	4.3	1-1627150-0	Reel of 2,000

**Notes:**

- all terminals made of Tin Plated Brass
- use #147A tool

**Pin Terminals**

**Pin Terminals with Open Crimp Barrels**

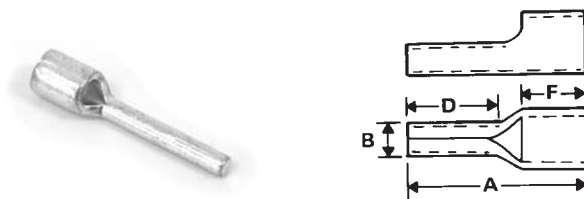
Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Length A (mm)	Thickness (mm)	Pin OD (mm)	Pin Recept. Size	Notes	Part Nos	Reel/Pack size
<b>To suit 2.36mm Diameter Receptacles</b>										
H3624E <sup>(1)</sup>	Tin Plated Brass/PVC	0.5-2.1	3.0	23.9	0.25	2.35	-	Lanceless, mates with H3625E	6-1661590-3	Reel of 4,000
H3986E <sup>(2)</sup>	Tin Plated Brass/PVC	0.5-0.75	2.8	2.36	0.3	2.36	-		1-1627335-0	Reel of 3,500

**Pin Receptacles to suit 2.36mm Diameter Pins**

H1867D <sup>(3)</sup>	Brass	0.4-1.0	3.3	15.9	0.3	-	2.65	Dimple 1.6x 1.3mm wide; Use H2774 terminal	1-1627042-1	Reel of 5,000
H2775 <sup>(4)</sup>	Brass	0.4-1.4	3.0	16.7	0.3	-	2.9		1-1659278-0	Reel of 4,000
H3625E <sup>(5)</sup>	Brass	0.5-2.1	3.0	19.6	0.3	-	2.9	Lanceless, mates with H3624E	3-0279465-9	Reel of 4,000

**Notes:**

- use #17 or #61 tool


**Pin Terminals with Closed Crimp Barrels**

Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Length A (mm)	Pin Diam B (mm)	Pin Length D (mm)	Wire Barrel Length F (mm)	Part Nos	Reel/Pack size
H2271	Tin Plated Copper	0.5-1.5	-	15.9	1.6	9.5	5.2	1-1659225-0	Pack of 100
H2272	Tin Plated Copper	1.5-2.5	-	17.4	2.0	10.3	5.5	1-1659226-0	Pack of 100
H2273	Tin Plated Copper	2.5-6.0	-	20.6	2.8	11.9	6.6	1-1659227-0	Pack of 100

**Notes:**

 - all terminals made of Tin Plated Copper  
 - pins have circular profile

## Faston (Quick Connect) Terminals

**Overview:**

The AMP FASTON & Posi Lock terminals shown here are a small selection of the total AMP range, and are offered to complement the Utilux range. To ensure you always achieve the best result, use only AMP application tooling (refer section 8).

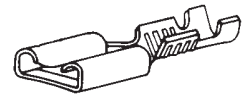
**Note: MOQs apply (may be greater than Pack/Reel Sizes listed here). Confirm these prior to ordering (may change from time to time).**

**AMP 250 Series**
**6.3mm (.250") Receptacles  
Straight Insulation Support**

(0.250" x .032" tab fit)

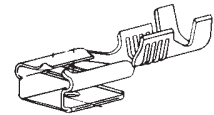
Wire Size		Material & Finish	Comments	Part Nos
AWG	Metric			
22-18	0.3-0.8	Tin Plated Brass		41772
		Brass		190538-1
		Nickel Silver		190538-2
20-16	0.5-1.5	Tin Plated Brass	Post-plated	190538-4
		Tin Plated Brass	Pre-plated	190538-7
		Tin Plated Brass	Loose Piece	190543-4
		Tin Plated Brass		5-160432-4
		Tin Plated Brass	LIF*	100495-2
18-14	0.5-2.0	Tin Plated Brass		42100-2
		Brass	Loose Piece	170054-1
14-10	2.0-5.3	Tin Plated Brass	LIF*	63539-1
-	2x1.5	Nickel Silver		190549-2
		Tin Plated Brass	Double Wire	190549-4

\*Low Insertion Force


**AMP 250 Series Piggyback**
**6.3mm (.250") Receptacle and  
Tab Combination**

(0.250" x .032" tab fit)

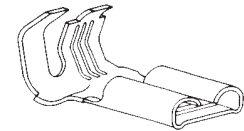
Wire Size		Material & Finish	Comments	Part Nos
AWG	Metric			
18-14	0.7-2.0	Tin Plated Brass		61944-2


**AMP 250 Series Flag**
**6.3mm (.250") Receptacles  
Flag Insulation Support**

(0.250" x .032" tab fit)

Wire Size		Material & Finish	Comments	Part Nos
AWG	Metric			
20-16	0.5-1.5	Brass		190542-1
		Nickel Silver		190542-2
		Tin Plated Brass		190542-4
		Brass	*LIF	190735-7
18-12	0.8-3.3	Tin Plated Brass	Tab-Lok	41532
16-12	1.3-3.3	Tin Plated Phos. Brz	Reversable	61188-1

\*Low Insertion Force

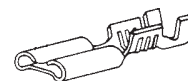


**Faston (Quick Connect) Terminals (cont'd)**
**AMP 187 Series**
**4.8mm (.187") Receptacles  
Straight Insulation Support**

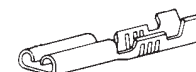
Tab Thickness: 0.5mm (.012")

Wire Size		Material & Finish	Comments	Part Nos
AWG	Metric			
20-16	0.5-1.5	Brass		42452-1
		Tin Plated Brass		5-160433-6

\*Low Insertion Force

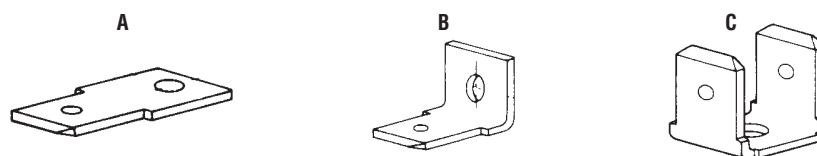

**AMP 110 Series**
**2.8mm (.110") Receptacles  
Straight Insulation Support**

Wire Size		Material & Finish	Comments	Part Nos
AWG	Metric			
20-16	0.5-1.5	Tin Plated Brass	0.8mm tab fit	160655-2
24-22	0.2-0.35	Pre-Tin Brass	0.5mm tab fit	42067-1
24-120	0.2-0.56	Pre-Tin Brass	0.5mm tab fit	170043-2


**AMP 250 Series Stud Mount Tabs**
**6.3mm (.250") tabs mate with all  
"250" Series FASTON Receptacles**

Tab Thickness: 0.8mm (.032")

Dimple (Both Sides)



Material & Finish	Hole Diameter	Style	Part Nos
Brass		A	60338-2
Tin Plated Brass	3.3mm	B	42095-1
Brass	4.3mm	C	41619

Other styles and sizes available. Refer catalogue 82004

Faston (Quick Connect) Terminals (cont'd)

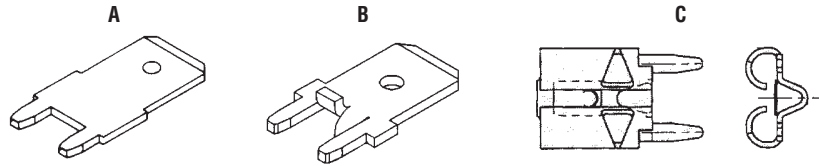
AMP 250 Series PCB Mount Tabs

6.3mm (.250") Tabs

Stock Thickness: .032(0.8mm)

Board Hole Size: .055 ± .002 on Centers

Loose Piece Board Hole Size: .060/.053 on Centres



Material & Finish	Style	Part Nos
Tin Plated Brass	A	62409-1
Tin Plated Brass	B	63849-1
Tin Plated Brass	A	63603-1
Tin Plated Brass	B	63982-1
Tin Plated Brass	C (Receptacle)	1217080-1

Other styles and sizes available. Refer catalogue 82004

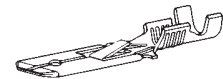
AMP 250 Series Wire Tabs

6.3mm (.250") Tabs

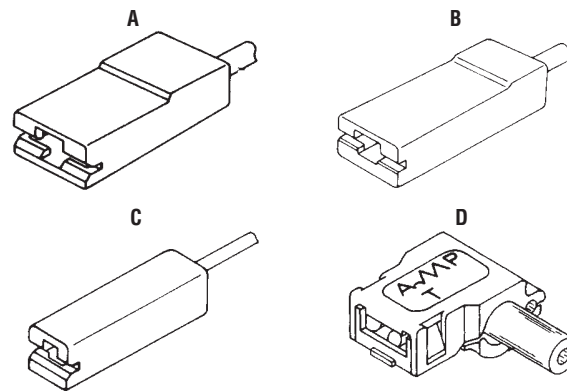
(For use with single or multiple circuit connectors)

Tab Thickness: .015(0.8mm)

Wire Size		Material & Finish	Comments	Part Nos
AWG	Metric			
22-18	0.3-0.8	Tin Plated Brass		62553-3
18-14	0.7-2.0	Tin Plated Brass		42460-2



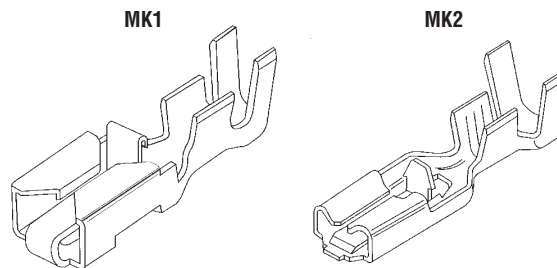
AMP 'FASTON' Insulators (prefit type)



Colour	Series	Style	Part Nos
Natural	.250	A	735075-0
Black	.250	A	735075-5
Natural	.250	D	190545-1
Natural	.187	B	1-480435-0
Natural	.110	C	1-480417-0

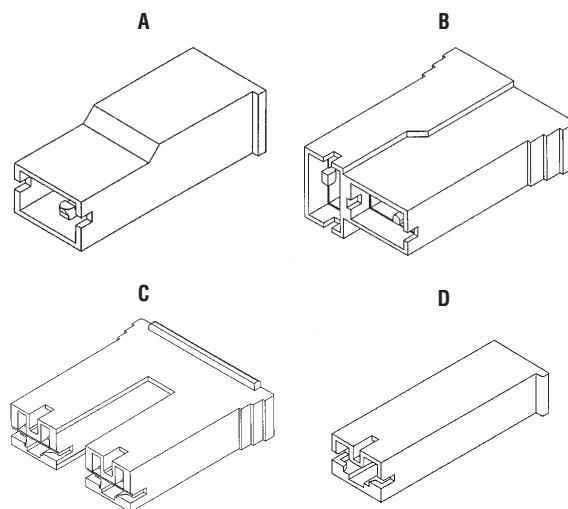
## Posi Lock (Quick Connect) Terminals

### AMP Posi Lock Receptacles

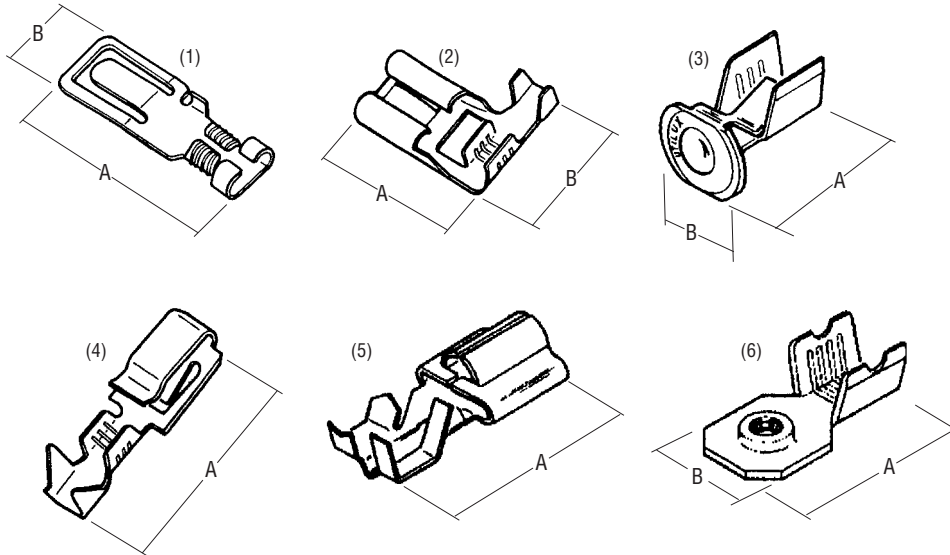


Wire Size		Material & Finish	Comments	Part Nos
AWG	Metric			
20-16	0.5-1.5	Tin Plated Brass	.250 MK1	341299-2
18-14	0.7-2.0	Tin Plated Brass	.250 MK1	154718-6
14-10	2.5-4.0	Tin Plated Brass	.250 MK1	341001-3
20-16	0.5-1.5	Tin Plated Brass	.250 MK1Flag	926820-4
20-16	0.5-1.5	Brass	.250 MK2	190679-1
20-16	0.5-1.5	Tin Plated Brass	.250 MK2	190679-2
20-16	0.5-1.5	Tin Plated Brass	.250 MK2	63498-1

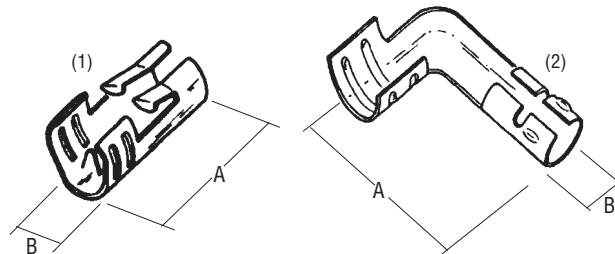
### AMP Posi Lock Insulators (prefit type)



Colour	Series	Style	Part Nos
Black	.250 MK1	A	154719-0
Natural	.250 MK1	A	154719-1
Black	.250 MK1	A	190816-9
Black	.250 MK1	B	926522-1
Black	.250 MK1	Flag (not shown)	926291-1
Black	.250 MK2	A	190836-9
Natural	.250 MK2	C	520935-1
Natural	.187 MK2	D	172074-1

**Specialty Terminals**

**Specialty Terminals**

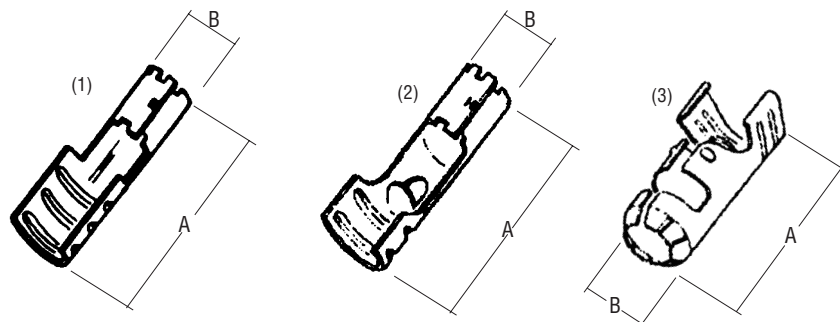
Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam(mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
H2698 <sup>(1)</sup>	Tin Plated Ph Bronze	0.65-2.5	6.4	0.35	27.3	8.1	Preformed	1-1659268-0	Box of 1,000
H2723 <sup>(2)</sup>	Brass	0.7-1.0	3.2	0.38	17.2	13.2	Sealed beam 8mm blade contact	1-1627108-2	Reel of 1,200
								1-1627108-0	Box of 1,000
								1-1627108-1	Box of 5,000
H2727 <sup>(3)</sup>	Brass	0.5-2.1		0.4	6.8	5.2	O.D.=5.2mm	1-1627110-1	Reel of 9,000
H2727B <sup>(3)</sup>	Nickel Silver	0.5-2.1		0.4	6.8	5.2	High temp; O.D.=5.2mm	1-1627110-2	Reel of 9,000
H3980 <sup>(4)</sup>	Brass	0.4-1.0	3.0	0.5	18.8	6.35	Flourescent tube contact	1-1627183-0	Reel of 4,000
H29600 <sup>(5)</sup>	Tin Plated Ph Bronze	0.7-1.0	2.2	0.55	12.8	-	Fusite terminal	1-1627146-1	Reel of 2,500
H1239M <sup>(6)</sup>	Steel	-		0.8	15.9	7.9	-	1-1627027-0	Reel of 8,000

**Specialty Terminals (cont'd)**

**Distributor Terminals to suit 8mm HT Cable**

Product Code	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
H28312 <sup>(1)</sup>	0.45	16.7	8.3	With Stopper	1-1627132-0	Reel of 4,500
H28310 <sup>(2)</sup>	0.4	25.6	8.0	-	1-1627130-1	Reel of 1,000

**Notes:**

- all terminals made of Stainless Steel
- use #77 tool

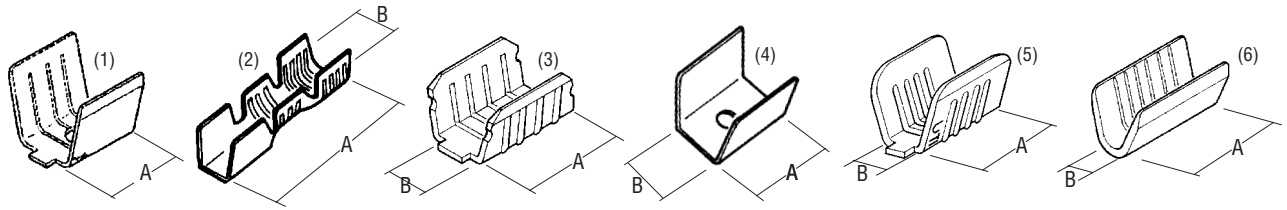

**Spark Plug Terminals to suit 8mm HT Cable**

Product Code	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
H28311A <sup>(1)</sup>	0.5	30.2	7.4	With Stopper	1-1627131-0	Reel of 1,400
H28308 <sup>(2)</sup>	0.5	7.4	7.4	With Stopper	1-1659286-0	Reel of 1,400
H28309 <sup>(3)</sup>	0.4	21.5	8.3	With Stopper	1-1659287-0	Reel of 3,000

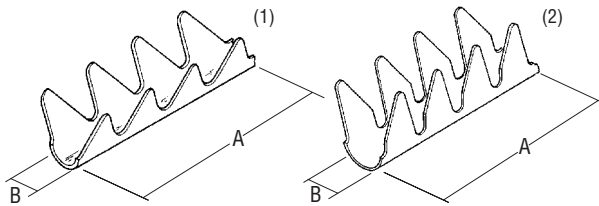
**Notes:**

- all terminals made of Stainless Steel
- use #77 tool



**Crimp Splice Terminals**


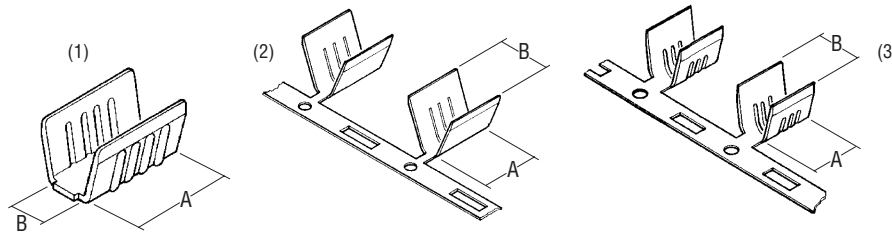
Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
H1581 <sup>(1)</sup>	Brass	-	0.45	6.35	6.35	-	1-1627037-0	Reel of 3,600
H1859 <sup>(2)</sup>	Brass	2x 0.75	0.45	17.4	4.5	In-line joint	1-1627039-1	Reel of 12,000
H2557 <sup>(3)</sup>	Steel	1.0-1.5	0.45	5.7	3.0	-	1-1659247-0	Reel of 16,000
H2708 <sup>(4)</sup>	Brass	4x 3.1	0.55	9.5	6.6	-	1-1627107-0	Reel of 1,200
H2731 <sup>(5)</sup>	Brass	0.65-3.5	0.45	5.5	4.4	Electric blanket splice; in-line joint	1-1627111-0	Reel of 20,000
H6518 <sup>(6)</sup>	Tin Plated Brass	0.75-1.5	0.50	5.6	3.5	Magnet wire splice; butt or in-line	1-1661610-0	Reel of 30,000
H6526 <sup>(6)</sup>	Brass	0.33-1.0	0.50	5.6	2.6	Magnet wire splice; butt or in-line	6-1661590-6	Reel of 20,000



Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
Shoelace (continuous strip) Crimp Splice Terminals								
H29100 <sup>(1)</sup>	Brass	0.5-1.0	0.25	Variable	2.6	Tunnel stud size 3.0mm	1-1627139-0	Reel of 30,000
H29101 <sup>(1)</sup>	Tin Plated Brass	0.5-1.0	0.25	Variable	2.6	Tunnel stud size 3.0mm	1-1659298-0	Reel of 30,000
H29104 <sup>(2)</sup>	Brass	1.5-2.5	0.25	Variable	3.6	Tunnel stud size 3.0-4.0mm	1-1627140-0	Reel of 30,000
H29105 <sup>(2)</sup>	Tin Plated Brass	1.5-2.5	0.25	Variable	3.6	Tunnel stud size 3.0-4.0mm	1-1659299-0	Reel of 30,000

**Notes:**

- Supplied on spools of 30,000 x 3 teeth = 90,000; Can be cut to 2, 3, 4 or more teeth lengths in crimp applications



Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
H29109 <sup>(1)</sup>	Brass	1.0-2.5	0.40	5.0	3.8	1-1659300-0	Reel of 15,000
H29110 <sup>(2)</sup>	Brass	1.7-5.0	0.40	6.0	5.3	1-1659301-0	Reel 7,000
H29111 <sup>(2)</sup>	Brass	0.6-1.5	0.40	14.0	5.6	1-1659302-0	Reel of 3,000
H29115 <sup>(3)</sup>	Tin Plated Brass	1.0-2.5	0.40	5.0	3.8	1-1659303-0	Reel of 15,000
H29116 <sup>(3)</sup>	Tin Plated Brass	1.7-5.0	0.40	6.0	5.3	1-1659304-0	Reel of 7,000
H29117 <sup>(3)</sup>	Tin Plated Brass	0.6-1.5	0.40	14.0	6.6	1-1659305-0	Reel of 3,000

**Notes:**

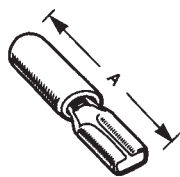
- use #17 or #61 tool for all crimp splices


**Products covered in this Section:**

- **Pre-insulated:**
  - Quick Connect (QC) Terminals
  - Pin Terminals
  - Lip Blade Terminals
  - Ring/Eye Terminals
  - Fork/Slotted Terminals
  - Closed End Cable Connectors
  
- **Fully Insulated:**
  - Ultra-Fast Faston QC Terminals
  - Ultra-Fast Plus Faston QC Terminals

Whether it's general-purpose wire termination (typically suited to pre-insulated terminals), or industrial applications where full insulation of receptacles and tabs is required, we've got you covered!

Our range of standard Pre-insulated terminals (Quick Connect & UTILUG), Fully Insulated terminals (Ultra-Fast), and terminals with enhanced wire retention (Supergrip & Ultra-Fast Plus) is comprehensive.

**Pre-insulated QC Terminals**

**Overview:**

Utilux Pre-insulated QC terminals have insulated crimp buckets for added protection. To ensure you always achieve the best result, use only Utilux application tooling (refer section 8).

**Note: MOQs apply (may be greater than Pack/Reel Sizes listed here). Confirm these prior to ordering (may change from time to time).**

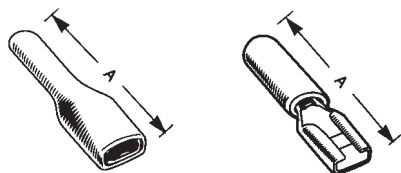
**2.8mm QC Terminals**

Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support; to suit 0.5mm tabs</b>							
H3564	RED	0.5-1.5	3.2	0.25	17.9	1-1659388-0	Pack of 100

<b>Receptacles - with straight insulation support; to suit 0.8mm uninsulated tabs</b>							
H3558	RED	0.5-1.5	3.2	0.25	17.9	1-1659382-0	Pack of 100

**Notes:**

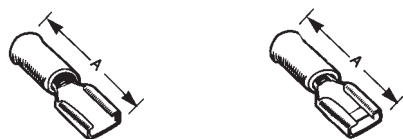
- all terminals made of Tin Plated Brass with PVC insulation


**4.8mm QC Terminals**

Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	Thickness (mm)	Length A (mm)	Part Nos	Reel/Pack size
<b>Receptacles - to suit 0.5mm tabs</b>						
H3559	RED	0.5-1.5	0.4	18.7	1-1659383-0	Pack of 100
H3563	RED	0.5-1.5	0.35	20.0	1-1659387-0	Pack of 100
H3565	BLUE	1.5-2.5	0.4	18.7	1-1659389-0	Pack of 100
H3566	BLUE	1.5-2.5	0.35	20.0	1-1659390-0	Pack of 100

**Notes:**

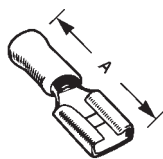
- all terminals made of Tin Plated Brass with PVC insulation


**6.3mm QC Terminals**

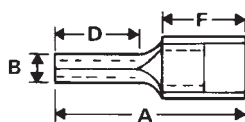
Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support</b>							
H2594A	RED	0.5-1.5	3.5	0.40	20.5	1-1659259-3	Pack of 20
						1-1659259-1	Pack of 100
						1-1659259-2	Box of 1,000
H2595A	BLUE	1.5-2.5	4.3	0.40	20.5	1-1659260-4	Pack of 20
						1-1659260-0	Pack of 100
						1-1659260-1	Box of 1,000
H2596A	YELLOW	2.5-6.0	4.3	0.40	24.6	1-1659262-1	Pack of 50
H2594	RED	0.5-1.5		0.25	17.9	1-1659259-0	Pack of 100
H2595	BLUE	4.0				1-1659260-0	Pack of 100
						1-1659260-1	Box of 1,000
H2596	YELLOW	5.0-6.0				1-1659262-0	Pack of 100

**Notes:**

- all terminals made of Tin Plated Brass with PVC insulation

**Pre-insulated QC Terminals (cont'd)**

**9.3mm QC Terminals**

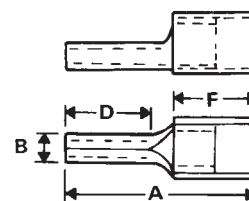
Product Code	Material & Finish	Colour Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Length A (mm)	Part Nos	Reel/Pack size
<b>Receptacles - with straight insulation support</b>							
H2853A	Tin Plated Brass/PVC	YELLOW	2.5-6.0	6.2	29.2	1-1659297-0	Pack of 50

**Pre-insulated Pin Terminals**

**Pin Terminals**

Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Length A (mm)	Width B (mm)	Dim D (mm)	Dim F (mm)	Tool	Part Nos	Reel/Pack size
<b>Pin terminals</b>										
H2276	No. 1 RED	0.5-1.5	3.3	21.0	1.6	9.5	10.3	#76B, #11B, #11C, #99, #102, #120	1-1659228-0	Pack of 100
H2278	No. 2 BLUE	1.5-2.5	4.3	23.8	2.0	10.3	11.9	#76B, #12B, #12C, #99, #102, #120	1-1659229-0	Pack of 100
H2280	No. 3 YELLOW	2.5-6.0	6.1	27.5	2.8	11.9	13.5	#76B, #13B, #99, #102, #120	1-1659230-0	Pack of 50

**Note:**

- all terminals made of Tin Plated Copper with PVC insulation



Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Length A (mm)	Width B (mm)	Dim D (mm)	Dim F (mm)	Tool	Part Nos	Reel/Pack size
<b>Supergrip Pin Terminals</b>										
H3556	No. 0 YELLOW	0.2-0.5	2.2	18.3	1.2	10.0	8.3	#78	1-1659381-0	Pack of 100
H2286	No. 1 RED	0.5-1.5	3.5	21.0	1.6	9.5	10.3	#76B, #11B, #11C, #99, #102, #120	1-1659231-2	Merchandiser
									1-1659231-0	Pack of 100
									1-1659231-1	Bag of 1,000
H2287	No. 2 BLUE	1.2-2.5	4.3	23.8	2.0	10.3	11.9	#76B, #12B, #12C, #99, #102, #120	1-1659232-2	Merchandiser
									1-1659232-0	Pack of 100
									1-1659232-1	Bag of 1,000
H2288	No. 3 YELLOW	2.5-6.0	6.1	27.5	2.8	11.9	13.5	#76B, #13B, #99, #102, #120	1-1659233-0	Pack of 50

**Note:**

- all terminals made of Tin Plated Copper with PVC insulation  
 - additional copper ferrule increases wire retaining force for superior wire retention

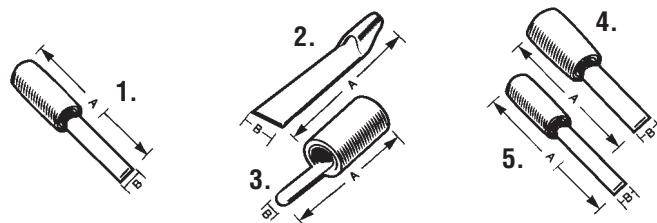
**Pre-insulated Bullet Terminals**

**Bullet Terminals**

Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Length A (mm)	Diam B (mm)	Notes	Part Nos	Reel/Pack size
<b>Terminals (Male)</b>								
H3919		0.5-1.5	3.5	20.2	4.0	mates with H3922	1-1659408-0	Pack of 100
							1-1659408-1	Box of 1,000
H3920		1.5-2.5	4.3	20.7	5.0	mates with H3923	1-1659409-0	Pack of 100
							1-1659409-1	Box of 1,000
<b>Receptacles (Female)</b>								
H3922		0.5-1.5	2.7	24.0	4.0	mates with H3919	1-1659410-0	Pack of 100
							1-1659410-1	Box of 1,000
H3923		1.5-2.5	3.2	25.0	5.0	mates with H 3920	1-1659411-0	Pack of 100
							1-1659411-1	Box of 1,000

**Notes:**

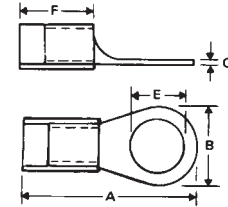
- all terminals made of Tin Plated Brass

**Pre-Insulated Lip Blade Terminals**

**Lip Blade Terminals**

Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
H2736 <sup>(1)</sup>	RED	0.5-1.5	3.5	0.7	24.8	2.9	-	1-1659272-0	Pack of 100
H2737 <sup>(1)</sup>	BLUE	1.5-2.5	3.7	0.7	26.8	3.0	-	1-1659273-0	Pack of 100
H2736A <sup>(1)</sup>	RED	0.5-1.5	3.5	0.8	27.7	3.0	-	1-1659272-1	Pack of 100
H2737A <sup>(1)</sup>	BLUE	1.5-2.5	4.1	0.8	27.7	3.0	-	1-1659273-1	Pack of 100
H2738A <sup>(1)</sup>	YELLOW	1.5-2.5	4.1	1.0	30.7	3.0	-	1-1659274-0	Pack of 50
H3916A <sup>(3)</sup>	RED	0.25-1.5	3.5	0.7	17.2	3.0	Lipless Miniature Blade	1-1659405-0	Pack of 100
H3917A <sup>(3)</sup>	BLUE	0.6-3.0	4.3	0.7	18.0	2.7	Lipless Miniature Blade	1-1659406-0	Pack of 100
H3918A <sup>(3)</sup>	YELLOW	2.5-6.0	6.3	0.9	22.4	2.7	Lipless Miniature Blade	1-1659407-0	Pack of 100
H4107A <sup>(4)</sup>	BLUE	0.5-1.5	3.5	0.8	28.5	2.0	Lipless Long Blade	1-1659453-1	Pack of 100
H4108A <sup>(4)</sup>	RED	0.5-1.5	4.3	0.8	28.5	2.0	Lipless Long Blade	1-1659454-1	Pack of 100
H4107 <sup>(4)</sup>	RED	0.5-1.5	3.5	0.8	25.8	4.6	-	1-1659453-1	Pack of 100
H4108 <sup>(4)</sup>	BLUE	1.5-2.5	4.3	0.8	30.3	4.6	-	1-1659454-0	Pack of 100
H4109 <sup>(4)</sup>	YELLOW	2.5-6.0	6.3	0.8	30.3	4.6	-	1-1659455-0	Pack of 100
H4207 <sup>(5)</sup>	RED	0.5-1.5	3.5	0.8	26.4	4.6	Supergrip	1-1659488-0	Pack of 100
H4208 <sup>(5)</sup>	BLUE	1.5-2.5	4.3	0.8	26.4	4.6	Supergrip	1-1659489-0	Pack of 100
H4209 <sup>(5)</sup>	YELLOW	2.5-6.0	6.3	0.8	30.8	4.6	Supergrip	1-1659490-0	Pack of 50

**Notes:**

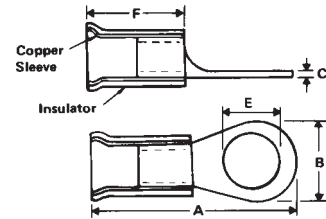
- all terminals made of Tin Plated Copper

**Pre-insulated Ring/Eye Terminals**

**Ring/Eye Terminals**

Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	AWG	Max Insul Diam (mm)	Stud Size	Thickness (mm)	Length A (mm)	Width B (mm)	Diam E (mm)	Length F (mm)	Part Nos	Reel/Pack size
H4110					M1.6	0.7	17.5	5.5	3.2	10.0	1-1659456-0	Pack of 100
H4111					M3	0.7	17.5	5.5	3.7	10.0	1-1659457-0	Pack of 100
H4116					M3	0.7	19.4	6.6	3.7	10.0	1-1659462-0	Pack of 100
H4112					M3	0.7	20.8	8.0	3.7	10.0	1-1659458-0	Pack of 100
H4113					M4	0.7	19.4	6.6	4.3	10.0	1-1659459-0	Pack of 100
H4114	No.1	0.5-1.5	22-16	3.5	M4	0.7	20.8	8.0	4.3	10.0	1-1659460-0	Pack of 100
H4115	RED				M5	0.7	20.8	8.0	5.3	10.0	1-1659461-2	Reel of 1,000
											1-1659461-0	Pack of 100
											1-1659461-1	Box of 1,000
H4117					M5	0.7	26.8	11.6	5.3	10.0	1-1659463-0	Pack of 100
H4118					M6	0.7	26.8	11.6	6.4	10.0	1-1659464-0	Pack of 100
H4119					M8	0.7	26.8	11.6	8.4	10.0	1-1659465-0	Pack of 100
H4140					M10	0.7	30.5	13.6	10.5	10.0	1-1659484-0	Pack of 100
H4120					M3	0.8	19.4	6.6	3.7	10.0	1-1659466-0	Pack of 100
H4121					M3	0.8	21.8	8.5	3.7	10.0	1-1659467-0	Pack of 100
H4122					M4	0.8	19.4	6.6	4.3	10.0	1-1659468-0	Pack of 100
H4123					M4	0.8	21.8	8.5	4.3	10.0	1200125-2	Pack of 100
H4124					M4	0.8	17.8	6.6	3.7	10.0	1-1659470-0	Pack of 100
H4125					M5	0.8	21.8	8.5	5.3	10.0	1-1659471-2	Reel of 1,000
	BLUE	1.5-2.5	16-14	4.3							1-1659471-0	Pack of 100
											1-1659471-1	Box of 1,000
H4126					M5	0.8	21.8	9.5	5.3	10.0	1-1659472-0	Pack of 100
H4127					M6	0.8	26.8	12.0	6.4	10.0	1-1659473-0	Pack of 100
											1-1659473-1	Box of 1,000
H4128					M8	0.8	26.8	12.0	8.4	10.0	1-1659474-0	Pack of 100
H4129					M10	0.8	30.5	13.6	10.5	10.0	1-1659475-0	Pack of 100
H4130					M4	1.0	22.7	7.2	4.3	10.0	1-1659476-0	Pack of 50
H4131					M4	1.0	26.6	9.5	4.3	10.0	1-1659477-0	Pack of 50
H4132					M3	1.0	22.7	7.2	3.7	10.0	1-1659478-0	Pack of 50
H4133					M5	1.0	26.6	9.5	5.3	10.0	1-1659479-2	Reel of 500
											1-1659480-1	Pack of 50
H4134	YELLOW	2.5-6.0	12-10	6.1	M6	1.0	29.5	12.0	6.4	10.0	1-1659480-0	Box of 1,000
H4137					M8	1.0	34.0	15.0	8.4	10.0	1-1659481-0	Pack of 50
H4138					M10	1.0	34.0	15.0	10.5	10.0	1-1659482-0	Pack of 50
H4139					M12	1.0	38.6	19.2	13.0	10.0	1-1659483-0	Pack of 50
H4162					M18	0.9	54.8	31.8	31.8	13.5	1-1659485-0	Pack of 100

**Notes:**

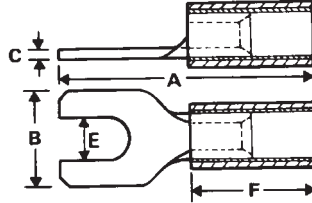
- All terminals made of Tin plated copper with PVC insulation
- use #76A, #11C, #11B, #63-4B, #102, #120 tools for H4110-H4119 & H4140
- use #76A, #12C, #12B, #63-4U, #102, #120 tools for H4120-H4130
- use #76A, #13B, #63-5U, #102, #120 tools for H4131-H4139 & H4162

**Insulated Terminals**
**Pre-insulated Ring/Eye Terminals (cont'd)**

**Ring/Eye Terminals**

Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	AWG	Max Insul Diam (mm)	Stud Size	Thickness (mm)	Length A (mm)	Width B (mm)	Diam E (mm)	Length F (mm)	Part Nos	Reel/Pack size
<b>Supergrip Ring Terminals</b>												
H4202	YELLOW	0.2-0.5	26-22	2.4	M4	0.5	19.0	6.6	3.7	8.0	1-1659486-0	Pack of 100
H4203					M5	0.5	19.0	8.0	3.7	8.0	1-1659487-0	Pack of 100
H4210					M1.6	0.7	18.0	5.5	3.2	10.5	1-1659491-0	Pack of 100
H4211					M3	0.7	18.0	5.5	3.7	10.5	1-1659492-0	Pack of 100
H4216					M3	0.7	19.9	6.6	3.7	10.5	1-1659497-0	Pack of 100
H4212					M3	0.7	21.3	8.0	3.7	10.5	1-1659493-0	Pack of 100
H4213					M4	0.7	19.9	6.6	4.3	10.5	1-1659494-0	Pack of 100
H4214					M4	0.7	21.3	8.0	4.3	10.5	1-1659495-2	Pack of 20
	RED	0.5-1.5	22-16	3.5							1-1659495-0	Pack of 100
											1-1659495-1	Box of 1,000
H4215					M5	0.7	21.3	8.0	5.3	10.5	1-1659496-2	Pack of 20
											1-1659496-1	Box of 1,000
H4217					M5	0.7	27.3	11.6	5.3	10.5	1-1659498-0	Pack of 100
H4218					M6	0.7	27.3	11.6	6.4	10.5	1-1659499-0	Pack of 100
H4219					M8	0.7	27.3	11.6	8.4	10.5	1-1659499-1	Box of 1,000
H4240					M10	0.7	31.0	13.6	10.5	10.5	1-1659519-0	Pack of 100
H4220					M3	0.8	19.9	6.6	3.7	10.5	1-1659500-0	Pack of 100
H4221					M3	0.8	22.3	8.5	3.7	10.5	1-1659502-0	Pack of 100
H4222					M4	0.8	19.9	6.6	4.3	10.5	1-1659503-0	Pack of 100
H4223					M4	0.8	22.3	8.5	4.3	10.5	1-1659504-2	Pack of 20
											1-1659504-0	Pack of 100
											1-1659504-1	Box of 1,000
H4225	BLUE	1.5-2.5		4.3	M5	0.8	22.3	8.5	5.3	10.5	1-1659505-2	Pack of 20
											1-1659505-0	Pack of 100
											1-1659505-1	Box of 1,000
H4226					M5	0.8	22.3	9.5	5.3	10.5	1-1659506-0	Pack of 100
H4227					M6	0.8	27.3	12.0	6.4	10.5	1-1659507-2	Pack of 20
											1-1659507-0	Pack of 100
											1-1659507-1	Box of 1,000
H4228					M8	0.8	27.3	12.0	8.4	10.5	1-1659508-0	Pack of 100
H4229					M10	0.8	31.0	13.6	10.5	10.5	1-1659509-0	Pack of 100
H4232					M3	1.0	23.2	7.2	3.7	13.5	1-1659512-0	Pack of 50
H4230					M4	1.0	23.2	7.2	4.3	13.5	1-1659510-0	Pack of 50
H4231					M4	1.0	27.1	9.5	4.3	13.5	1-1659511-0	Pack of 50
H4233					M5	1.0	27.1	9.5	5.3	13.5	1-1659514-0	Pack of 20
											1-1659513-0	Box of 1,000
											1-1659513-1	Pack of 50
H4234	YELLOW	2.5-6.0		6.1	M6	1.0	30.0	12.0	6.4	13.5	1-1659515-2	Pack of 20
											1-1659515-0	Box of 1,000
											1-1659515-1	Pack of 50
H4237					M8	1.0	34.5	15.0	8.4	13.5	1-1659516-0	Pack of 50
H4238					M10	1.0	34.5	15.0	10.5	13.5	1-1659517-0	Pack of 50
H4239					M12	1.0	39.1	19.2	13.0	13.5	1-1659518-0	Pack of 50

**Notes:**

- all terminals made of Tin Plated Copper
- additional copper ferrule increases wire retaining force for superior wire retention
- use #78 tool for H4202, H4203
- use #11C, #11B, #76B, #63-4B, #102, #120 tools for H4210-H4219 & H4240
- use #12C, #12B, #76B, #63-4U, #102, #120 tools for H4220-H4229
- use #13B, #76B, #63-5U, #102, #122 tools for H4232-H4239

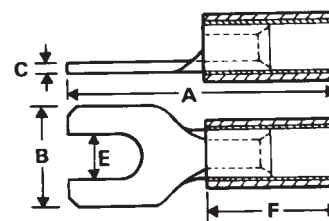
**Pre-insulated Fork/Slotted Terminals**

**UTILUG Fork/Slotted Terminals**

Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	AWG	Max Insul Diam (mm)	Stud Size	Thickness (mm)	Length A (mm)	Width B (mm)	Diam E (mm)	Length F (mm)	Part Nos	Reel/Pack size
H4412					M3	0.7	21.0	6.4	3.7	10.0	1-1659532-0	Pack of 100
H4414	RED	0.5-1.5	22-16	3.5	M4	0.7	21.0	7.2	4.3	10.0	1-1659533-0	Pack of 100
H4415					M5	0.7	21.0	8.1	5.3	10.0	1-1659534-0	Pack of 100
H4417					M5	0.7	21.0	9.5	5.3	10.0	1-1659535-0	Pack of 100
H4421					M3	0.8	21.0	6.0	3.7	10.0	1-1659536-0	Pack of 100
H4423	BLUE	1.5-2.5	16-14	4.3	M4	0.8	21.0	7.2	4.3	10.0	1-1659537-0	Pack of 100
											1-1659537-1	Box of 1,000
H4425					M5	0.8	21.0	9.3	5.3	10.0	1-1659538-0	Pack of 100
H4426					M5	0.8	21.0	9.3	5.3	10.0	1-1659539-0	Pack of 100
H4432					M3	1.0	25.5	8.3	3.7	13.0	1-1659541-0	Pack of 50
H4431	YELLOW	2.5-6.0	12-10	6.1	M4	1.0	25.5	9.0	4.3	13.0	1-1659540-0	Pack of 50
H4433					M5	1.0	25.5	9.0	5.3	13.0	1-1659542-0	Pack of 50
H4434					M6	1.0	31.5	12.0	6.4	13.0	1-1659543-0	Pack of 50

**Notes:**

- all terminals made of Tin Plated Copper
- additional copper ferrule increases wire retaining force for superior wire retention
- for RED terminals, use tools:#9A, #11C or #11B, #63-4B, #99, #102, #120
- for BLUE terminals, use tools:#9A, #12C, #12B, #76B, #63-4U, #99, #102, #120
- for YELLOW terminals, use tools:#9A, #13B, #76, #63-4U, #99, #102, #120



**Pre-insulated Fork/Slotted Terminals (cont'd)**

**UTILUG Fork/Slotted Terminals with Closed Crimp Barrels**

Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	AWG	Max Insul Diam (mm)	Stud Size	Thickness (mm)	Length A (mm)	Width B (mm)	Diam E (mm)	Length F (mm)	Part Nos	Reel/Pack size
<b>Supergrip Fork Terminals</b>												
H4512					M3	0.7	21.5	6.4	3.7	10.5	1-1659544-1	Pack of 20
											1-1659544-0	Pack of 100
H4514	RED	0.5-1.5	22-16	3.5	M4	0.7	21.5	7.2	4.3	10.5	1-1659545-1	Pack of 20
											1-1659545-0	Pack of 100
H4515					M5	0.7	21.5	8.1	5.3	10.5	1-1659546-2	Pack of 20
											1-1659546-0	Pack of 100
											1-1659546-1	Box of 1,000
H4517					M5	0.7	21.5	9.5	5.3	10.5	1-1659547-0	Pack of 100
H4521					M3	0.8	21.5	5.7	3.2	10.5	1-1659549-0	Pack of 20
											1-1659548-0	Pack of 100
											1-1659548-1	Box of 1,000
H4523	BLUE	1.5-2.5	16-14	4.3	M4	0.8	21.5	7.2	4.3	10.5	1-1659550-2	Pack of 20
											1-1659550-0	Pack of 100
											1-1659550-1	Box of 1,000
H4525					M5	0.8	21.5	7.9	5.3	10.5	1-1659551-0	Pack of 100
H4526					M5	0.8	21.5	9.3	5.3	10.5	1-1659552-0	Pack of 100
H4532					M3	1.0	24.9	7.2	3.7	13.5	1-1659554-0	Pack of 50
H4531	YELLOW	2.5-6.0	12-10	6.1	M4	1.0	26.0	9.0	4.3	13.5	1-1659553-0	Pack of 50
H4533					M5	1.0	26.0	9.0	5.3	13.5	1-1659555-0	Pack of 50
H4534					M6	1.0	32.0	12.0	6.4	13.5	1-1659556-0	Pack of 50

**Notes:**

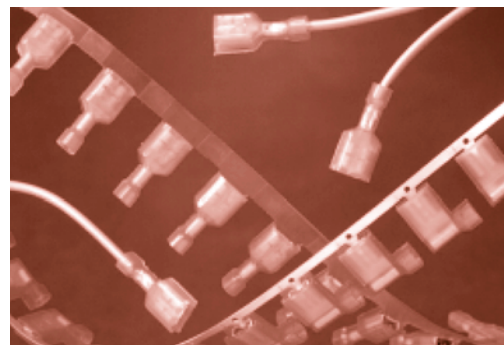
- all terminals made of Tin Plated Copper
- additional copper ferrule increases wire retaining force for superior wire retention
- square sides provide non-turn capability
- for RED terminals, use tools:#76B, #11C or #11B, #63-4B, #102, #120
- for BLUE terminals, use tools:#76B, #11C or #11B, #63-4U, #102, #120
- for YELLOW terminals, use tools:#76B, #12C or #12B, #63-5U, #102, #120

## Fully Insulated Ultra-Fast Quick Connect Terminals

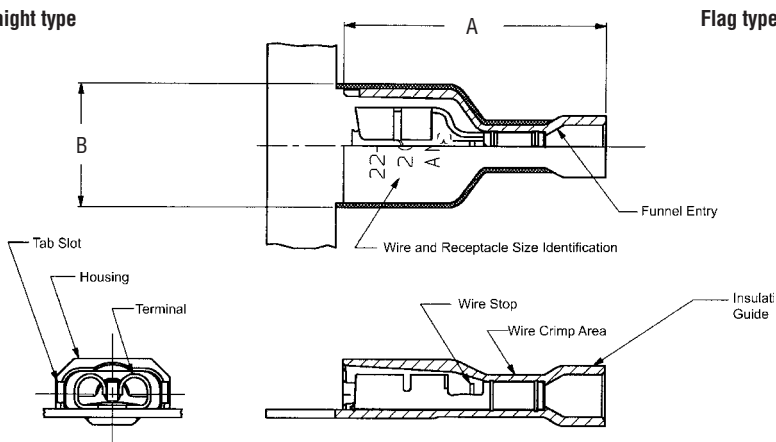
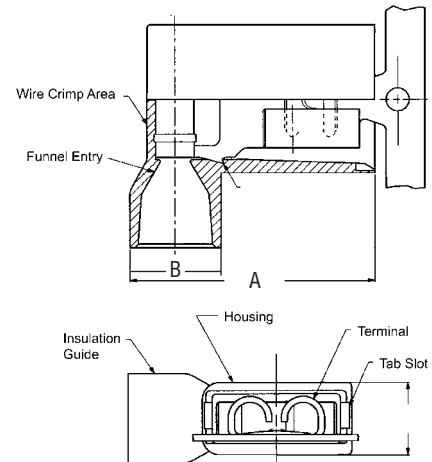
**Overview:**

AMP Ultra-Fast terminals are fully insulated for added protection in environments where moisture, liquid or dust are a concern. AMP Ultra-Fast Plus also features an added crimp sleeve for enhanced wire retention (similar to Supergrip style terminals). To ensure you always achieve the best result, use only AMP application tooling (refer section 8).

**Note: MOQs apply (may be greater than Pack/Reel Sizes listed here). Confirm these prior to ordering (may change from time to time).**


**AMP Ultra-Fast Terminals**

Wire Range (AWG)	Material & Finish	Colour Code mm (inch)	Max Insulation Diameter	Length A mm (inch)	Width B mm (inch)	Part Nos	
						Strip	Loose Piece
<b>110 / 125 Series (2.8mm &amp; 3.2mm) - Receptacles</b>							
26-22	Tin Plated Brass/Nylon	Violet	2.54 (0.100)	0.51 (0.020)	2.80 (0.110)	7-520365-2 †	7-520336-2 †
		Red	3.05 (0.120)	0.41 (0.016)	2.80 (0.110)	2-520080-2 †	2-520081-2 †
		Red	3.05 (0.120)	0.51 (0.020)	2.80 (0.110)	2-520083-2	2-520084-2
22-18	Tin Plated Brass/Nylon	Red	3.05 (0.120)	0.81 (0.032)	2.80 (0.110)	2-520272-2	2-520273-2
		Red	5.84 (0.230)	0.51 (0.020)	2.80 (0.110)	2-520306-2	-
		Red	5.84 (0.230)	0.81 (0.032)	2.80 (0.110)	2-520310-2	-
16-14	Tin Plated Brass/Nylon	Blue	6.60 (0.260)	0.51 (0.020)	2.80 (0.110)	3-520370-2 †	-
<b>187 Series (4.8mm) - Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	3.43 (0.135)	0.51 (0.020)	4.80 (0.187)	2-520181-2**	2-520182-2
		Red	3.43 (0.135)	0.81 (0.032)	4.80 (0.187)	2-520193-2	2-520194-2
		Red	5.84 (0.230)	0.51 (0.020)	4.80 (0.187)	2-520261-2	-
		Red	5.84 (0.230)	0.81 (0.032)	4.80 (0.187)	2-520274-2	2-520275-2
		Blue	4.06 (0.160)	0.51 (0.020)	4.80 (0.187)	3-350815-2	3-350816-2
		Blue	4.06 (0.160)	0.81 (0.032)	4.80 (0.187)	3-520124-2	3-520125-2
16-14	Tin Plated Brass/Nylon	Blue	6.60 (0.260)	0.51 (0.020)	4.80 (0.187)	3-520150-2	3-520151-2
		Blue	6.60 (0.260)	0.81 (0.032)	4.80 (0.187)	3-520276-2	-
<b>187 Series (4.8mm) - Flag Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	4.19 (0.165)	0.51 (0.020)	4.8 (0.187)	2-520334-2	2-520335-2
		Red	4.19 (0.165)	0.81 (0.032)	4.8 (0.187)	2-520336-2	2-520337-2
		Blue	4.70 (0.185)	0.51 (0.020)	4.8 (0.187)	3-520338-2	3-520339-2
16-14	Tin Plated Brass/Nylon	Blue	6.60 (0.185)	0.81 (0.032)	4.8 (0.187)	3-520340-2	-
		Blue	6.60 (0.260)	0.51 (0.020)	4.8 (0.187)	3-520997-2	-
		Blue	6.60 (0.260)	0.81 (0.032)	4.8 (0.187)	3-521247-2	-
<b>205Series (5.2mm) - Flag Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	4.19 (0.165)	0.81 (0.032)	5.2 (0.205)	2-521164-2	-
<b>Straight Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	3.43 (0.135)	0.51 (0.020)	5.2 (0.205)	2-521406-2	-
		Red	3.43 (0.135)	0.81 (0.032)	5.2 (0.205)	2-521308-2	-

**Fully Insulated Ultra-Fast Quick Connect Terminals (cont'd)**
**Straight type**

**Flag type**

**AMP Ultra-Fast Terminals**

Wire Range (AWG)	Material & Finish	Colour Code	Max Insulation Diameter mm (inch)	Length A mm (inch)	Width B mm (inch)	Part Nos	
						Strip	Loose Piece
<b>250 Series (6.3mm) - Straight Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	3.43 (0.135)	0.81 (0.032)	6.3 (0.250)	2-520183-2	2-520184-2
		Red	3.43 (0.135)	0.81 (0.032)	6.3 (0.250)	*2-520183-4	*2-520184-4
		Red	5.84 (0.230)	0.81 (0.032)	6.3 (0.250)	2-520263-2	2-520264-2
		Red	5.84 (0.230)	0.81 (0.032)	6.3 (0.250)	*2-520263-4	-
16-14	Tin Plated Brass/Nylon	Blue	4.06 (0.160)	0.81 (0.032)	6.3 (0.250)	3-350819-2	3-350820-2
		Blue	4.06 (0.160)	0.81 (0.032)	6.3 (0.250)	*3-520116-2	*3-520117-2
		Blue	6.60 (0.260)	0.81 (0.032)	6.3 (0.250)	3-520140-2	3-520141-2
12-10	Tin Plated Brass/Nylon	Blue	6.60 (0.260)	0.81 (0.032)	6.3 (0.250)	*3-520140-4	-
		Yellow	8.13 (0.320)	0.81 (0.032)	6.3 (0.250)	4-520447-2	4-520448-2
<b>250 Series (6.3mm) - Flag Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	4.19 (0.165)	0.81 (0.032)	6.3 (0.250)	2-520128-2	2-520129-2
		Red	5.84 (0.230)	0.81 (0.032)	6.3 (0.250)	2-520856-2	-
16-14	Tin Plated Brass/Nylon	Blue	4.70 (0.185)	0.81 (0.032)	6.3 (0.250)	3-520132-2	3-520133-2
		Blue	6.60 (0.260)	0.81 (0.032)	6.3 (0.250)	3-520013-2	-
<b>187 Series (4.8mm) - Tabs</b>							
22-18	Tin Plated Brass/Nylon	Red	3.43 (0.135)	0.41 (0.020)	4.80 (0.187)	2-521102-2	2-521103-2
		Red	8.13 (0.320)	0.81 (0.032)	4.80 (0.187)	2-521104-2	2-521105-2
<b>250 Series (6.3mm) - Tabs</b>							
22-18	Tin Plated Brass/Nylon	Red	3.43 (0.135)	0.81 (0.032)	6.3 (0.250)	2-520102-2	2-520103-2
		Red	5.84 (0.230)	0.81 (0.032)	6.3 (0.250)	2-521144-2	2-521192-2
16-14	Tin Plated Brass/Nylon	Blue	4.06 (0.160)	0.81 (0.032)	6.3 (0.250)	3-520106-2	3-520107-2
		Blue	6.60 (0.260)	0.81 (0.032)	6.3 (0.250)	3-521142-2	3-521191-2
12-10	Tin Plated Brass/Nylon	Yellow	8.13 (0.320)	0.81 (0.032)	6.3 (0.250)	4-521097-2	4-521098-2

**Notes:**

† Special UL/CSA status (check with Tyco Electronics)

\* Tin Plated Phosphur Bronze

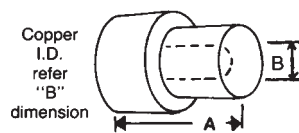
\*\* Also available in Tin Plated Phosphur Bronze

† Accepts 3.2mm (0.125") wide tabs

† Nylon housing is 125°C UL rated

**Fully Insulated Ultra-Fast Quick Connect Terminals (cont'd)**
**AMP Ultra-Fast Plus Terminals (with Insulation Crimp)**

Wire Range (AWG)	Material & Finish	Colour Code	Max Insulation Diameter mm (inch)	Length A mm (inch)	Width B mm (inch)	Part Nos	
						Strip	Loose Piece
<b>110 / 125 Series (2.8mm &amp; 3.2mm) - Straight Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	3.05 (0.120)	0.81 (0.032)	2.80 (0.110)	2-520932-2	-
		Red	3.05 (0.120)	0.51 (0.020)	2.80 (0.110)	2-520979-2	-
<b>187 Series (4.8mm) - Straight Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	3.43 (0.135)	0.41 (0.020)	4.80 (0.187)	2-520401-2	2-520409-2
		Red	3.43 (0.135)	0.81 (0.032)	4.80 (0.187)	2-520403-2	2-520411-2
		Blue	4.06 (0.160)	0.41 (0.020)	4.80 (0.187)	3-520402-2	3-520410-2
16-14	Tin Plated Brass/Nylon	Blue	4.06 (0.160)	0.81 (0.032)	4.80 (0.187)	3-520404-2	3-520412-2
<b>250 Series (6.3mm) - Straight Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	3.43 (0.135)	0.81 (0.032)	6.3 (0.250)	2-520405-2	2-520407-2
		Blue	4.06 (0.160)	0.81 (0.032)	6.3 (0.250)	3-520406-2	3-520408-2
<b>187 Series (4.8mm) - Flag Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	4.19 (0.165)	0.51 (0.020)	4.8 (0.187)	2-520334-2	2-520335-2
		Red	4.19 (0.165)	0.81 (0.032)	4.8 (0.187)	2-520336-2	2-520337-2
		Blue	4.70 (0.185)	0.51 (0.020)	4.8 (0.187)	3-520338-2	3-520339-2
16-14	Tin Plated Brass/Nylon	Blue	4.70 (0.185)	0.81 (0.032)	4.8 (0.187)	3-520340-2	-
		Blue	6.60 (0.260)	0.51 (0.020)	4.8 (0.187)	3-520997-2	-
		Blue	6.60 (0.260)	0.81 (0.032)	4.8 (0.187)	3-521247-2	-
<b>205 Series (5.2mm) - Flag Receptacles</b>							
22-18	Tin Plated Brass/Nylon	Red	4.19 (0.165)	0.81 (0.032)	5.2 (0.205)	2-521164-2	-
<b>250 Series (6.3mm) - Tabs</b>							
22-18	Tin Plated Brass/Nylon	Red	3.43 (0.135)	0.81 (0.032)	6.3 (0.250)	2-521055-2	-
16-14	Tin Plated Brass/Nylon	Blue	4.06 (0.160)	0.81 (0.032)	6.3 (0.250)	3-521057-2	-

**Pre-Insulated Closed End Cable Connectors**


Product Code	Internal Diam (mm)	Length A (mm)	Stranding Metric	Tooling	Part Nos	Reel/Pack size
H349	2.08	15.1	2x24/0.20	#76B, #11A, #11B	2-1200125-3	Pack of 150
H2023	3.3	21.0	2x24/0.20	#28A	0-1200114-7	Pack of 150
H2026	4.5	27.0	2x50/0.25	#28A	6-1200113-2	Pack of 100
H2047	2.5	15.2	2x32/0.20	#76B, #11C, #11B	0-1200097-1	Box of 3,000
H2048	3.7	18.0	2x32/0.20	#76B, #13B	5-1661594-3	Pack of 100
H2050	3.35	19.1	2x32/0.20	#76B, #13B	2-0279465-6	Pack of 100
H2049	5.0	30.0	5x32/0.20	#76B	4-1200120-1	Pack of 100

**Notes:**

- all terminals made of Tin Plated Copper with Nylon insulation


**Products covered in this Section:**

- **Pin Terminal Connector System**
- **QC Terminal Connector System**
- **Universal Mate-N-Lok Pin Terminal Connector System**

We offer the world's widest range of plug and socket connectors. These selected connector systems offer flexibility, reliability and cost-effective solutions for designers and manufacturers of signal and current carrying cable harnesses and wire looms for Appliance, Gaming Machine, Industrial and Commercial machinery, and Medical Equipment Applications.

### Plug & Socket (Wire-to-wire) Connector Systems

**Overview:**
**Utilux Pin Terminal Connector System**

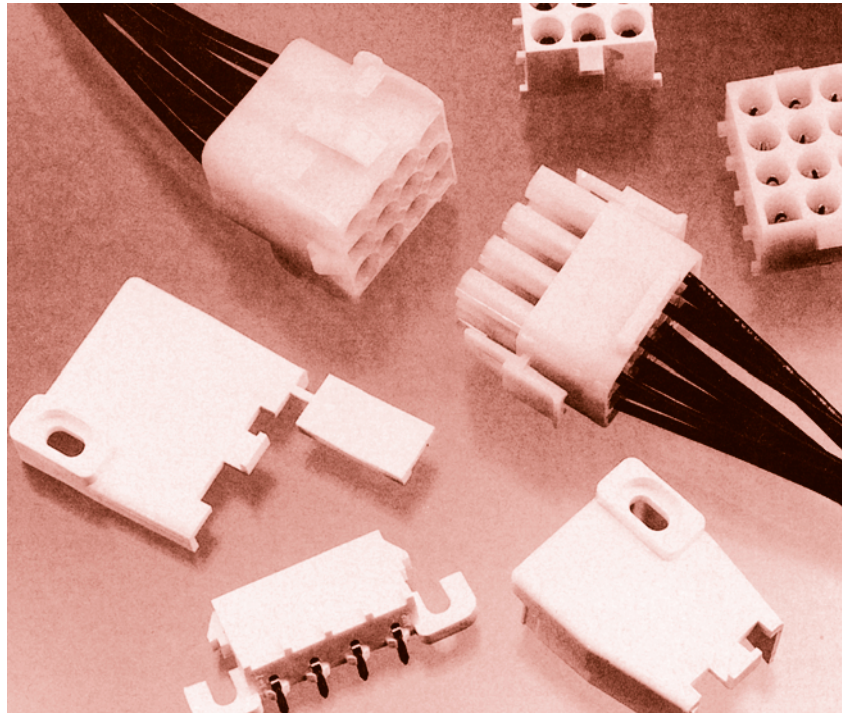
- Low cost pin connector system
- Nylon housings for durability and improved heat resistance
- Polarised
- Housings with locking mechanism to ensure positive, secure, mating
- Removable, crimp snap-in pin contacts

**Utilux QC Connector System**

- Nylon housings for durability and improved heat resistance
- Removable, crimp snap-in Lanced QC terminals for positive locking
- Positive polarisation
- Rear cavity identification

**AMP Universal Mate-N-Lok Connector System**

- Pins and sockets can be intermixed in the same housing
- 6.35mm centreline system
- Positive polarisation
- Contacts completely enclosed in housings
- Removable, crimp snap-in contacts
- Low contact mating force
- Dual locking lances provide optimum contact stability
- Panel mount or free hanging
- Available in UL 94V-0 flame retardant material. Meets the material requirements of table 25.1 of U.L. Standard 1410 (television receivers and video products)
- Harness to PC Board capability using pin or socket headers
- Pin and socket headers are available in both vertical and right angle style

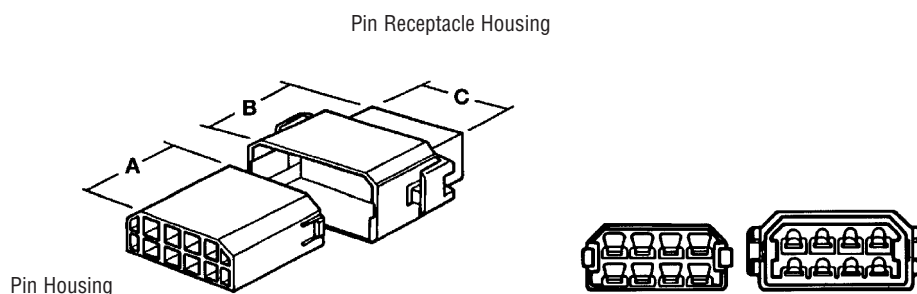


The three systems offered here are ideal for general industrial and automotive applications where reliable, low cost plug and socket connectivity of wiring looms is required.

For wire sizes up to 2.1mm<sup>2</sup> and voltages to 600VAC, these systems use standard crimp-type terminals, making them ideal for field termination/repair.

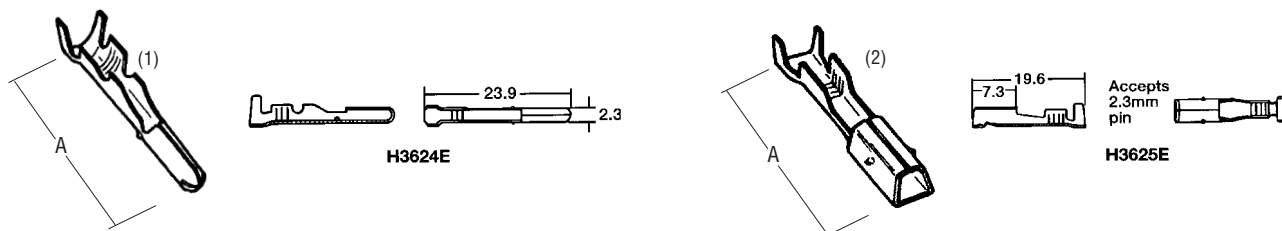
For more information about these and other plug and socket connector systems, contact Tyco Electronics.

## Pin Terminal Connector System



### 2.3mm Pin Type Lanceless Connector System - Housings

Product Code & Finish	Material	Dim A (mm)	Dim B (mm)	Dim C (mm)	Notes	Part Nos	Reel/Pack size
H3330-4	Nylon (natural)	25.2	-	-	mates with H3331-4	1-1661615-0	Pack of 100
H3331-4	Nylon (natural)	-	32.0	12.3	mates with H3330-4	1-1661616-0	Pack of 100
H3330-6	Nylon (natural)	25.5	-	-	mates with H3331-6	1-1661615-2	Pack of 100
H3331-6	Nylon (natural)	-	32.0	17.8	mates with H3330-6	1-1661616-2	Pack of 100
H3334-1	Nylon (black)	25.7	-	-	mates with H3335-1	1-1661617-0	Pack of 1,000
H3335-1	Nylon (black)	-	32.0	6.7	mates with H3334-1	9-1661590-0	Pack of 1,000
H3330-3	Nylon (natural)	25.5	-	-	mates H3331-3	-	Pack of 100
H3331-3	Nylon (natural)	-	32.0	15.8	mates H3330-3	1-1661616-3	Pack of 100



### Pin Terminals with Open Crimp Barrels

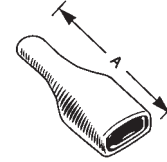
Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Length A (mm)	Thickness (mm)	Pin OD (mm)	Pin Recept. Size	Notes	Part Nos	Reel/Pack size
<b>Pins to suit 2.36mm Diameter Receptacles</b>										
H3624E <sup>(1)</sup>	Tin Plated Brass/PVC	0.5-2.1	3.0	23.9	0.25	2.35	-	Lanceless	6-1661590-3	Reel of 4,000

### Pin Receptacles to suit 2.36mm Diameter Pins

H3625E <sup>(2)</sup>	Brass	0.5-2.1	3.0	19.6	0.3	-	2.9	Lanceless	3-0279465-9	Reel of 4,000
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#### Notes:

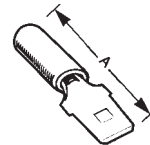
- use #17 or #61 tool

**Pre-insulated QC Terminals (cont'd)**

**6.3mm QC Terminals (cont'd)**

Product Code	Colour Code	Wire Size	Max Insul Diam (mm <sup>2</sup> )	Thickness (mm)	Length A (mm)	Part Nos (mm)	Reel/Pack size
<b>Receptacles - fully insulated to suit 0.8mm tabs</b>							
H3560	RED	0.5-1.5	2.7	0.70	22.0	1-1659384-2	Pack of 20
						1-1659384-0	Pack of 100
						1-1659384-1	Box of 1,000
						1-1659384-3	Reel of 500
H3561	BLUE	1.5-2.5	3.2	0.70	22.0	1-1659385-2	Pack of 20
						1-1659385-0	Pack of 100
						1-1659385-1	Box of 1,000
						1-1659385-3	Reel of 500
H3562	YELLOW	2.5-6.0	3.8	0.70	25.0	1-1659386-0	Pack of 50

**Notes:**

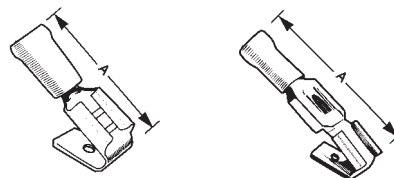
- all terminals made of Tin Plated Brass with PVC insulation
- fully insulated for maximum contact and dust protection



Product Code	Colour Code	Wire Size	Thickness (mm)	Length A (mm)	Part Nos (mm)	Reel/Pack size
<b>Tabs - with straight insulation support</b>						
H2844	RED	0.5-1.5	0.25	17.9	1-1659290-2	Pack of 20
					1-1659290-0	Pack of 100
					1-1659290-1	Box of 1,000
H2845	BLUE	4.0			1-1659291-2	Pack of 20
					1-1659291-0	Pack of 100
					1-1659291-1	Box of 1,000
H2846	YELLOW	5.0-6.0			1-1659292-0	Pack of 50

**Notes:**

- all terminals made of Tin Plated Brass with PVC insulation

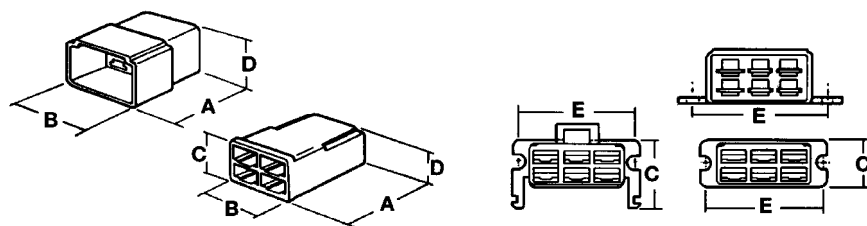

**6.3mm QC Adapters**

Product Code	Colour Code	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Part Nos	Reel/Pack size
<b>Piggyback type</b>							
H2847A	RED	0.5-1.5	3.5	0.8	22.2	1-1659293-0	Pack of 100
H2848A	BLUE	1.5-2.5	4.3	0.85	22.2	1-1659294-0	Pack of 100
H2849	YELLOW	2.5-6.0	6.0	0.8	33.4	1-1659295-0	Pack of 100

**Notes:**

- all terminals made of Tin Plated Brass with PVC insulation

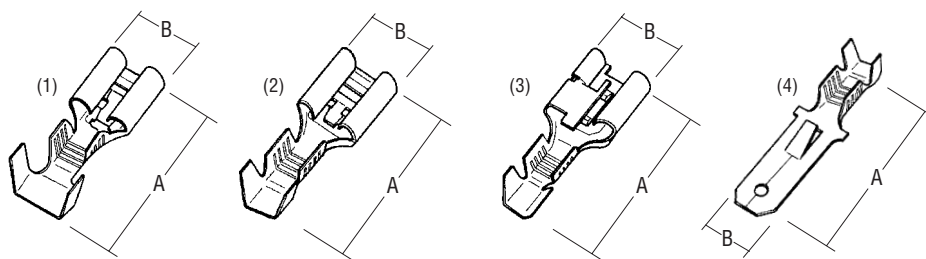


**QC Terminal Connector System**

**Lanced QC Connector System for 6.0mm & 6.3mm QC terminals**

Product Code	Tab/Receptacle	Dim A (mm)	Dim B (mm)	Dim C (mm)	Dim D (mm)	Notes	Part Nos	Reel/Pack size
<b>Housings</b>								
H3321-1	Tab	28.5	12.5	8.8	6.3	Mates with H3324-1; only suits 6.0mm terminals	1-1661035-0	Pack of 5
H3324-1	Receptacle	24.5	10	6.7	6.7	Mates with H3321-1; only suits 6.0mm terminals	1-1627202-0	Pack of 100
H3321-2	Tab	28.5	13.5	18.8	15.8	Mates with H3324-2; suits 6.0 & 6.3mm terminals	1-1627200-1 1-1661613-0	Pack of 100 Box of 1,000
H3324-2	Receptacle	24.5	10.0	15.3	15.3	Mates with H3321-2; suits 6.0 & 6.3mm terminals	1-1627202-1	Pack of 100
H3321-3	Tab	28.5	16.4	20.0	17.0	Mates with H3324-3; suits 6.0 & 6.3mm terminals	1-1627200-2	Pack of 100
H3324-3	Receptacle	24.5	15.0	16.5	13.0	Mates with H3321-3; suits 6.0 & 6.3mm terminals	1-1627202-2	Pack of 100
H3321-4	Tab	28.5	22.5	15.4	13.0	Mates with H3324-4; suits 6.0 & 6.3mm terminals	1-1661613-1	Box of 1,000
H3324-4	Receptacle	24.5	19.0	14	12.0	Mates with H3321-4; suits 6.0 & 6.3mm terminals	1-1661614-0	Box of 1,000

**Notes:**

- all housings are made of Nylon (natural)



Product Code	Material & Finish	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Notes	Part Nos	Reel/Pack size
<b>Terminals</b>						
H2840ET <sup>(1)</sup>	Tin Plated Brass	2x 0.7-1.0	2x 3.3	Receptacle, lanced	1-0279506-0	Reel of 1,800
H3555 <sup>(2)</sup>	Brass	0.7-2.1	3.9	Receptacle, lanced	1-1627154-5	Pack of 150
					1-1627154-0	Box of 1,000
					1-1627154-6	Box of 5,000
					1-1627154-4	Box of 10,000
					1-1627154-1	Reel of 8,000
H3555ET <sup>(2)</sup>	Tin Plated Brass	0.7-2.1	3.9	Receptacle, lanced	1-1627154-2	Reel of 8,000
H3702 <sup>(3)</sup>	Brass	0.3-0.7	2.8	Receptacle, lanced	1-1627161-2	Reel of 8,000
H3702ET <sup>(3)</sup>	Tin Plated Brass	0.3-0.7	2.8	Receptacle, lanced	1-1627161-1	Reel of 8,000
H2832 <sup>(4)</sup>	Brass	0.7-2.1	3.0	Tab, lanced	1-1627133-2	Reel of 7,000
					1-1627133-0	Reel of 1,000
					1-1627133-6	Reel of 10,000
H2832ET <sup>(4)</sup>	Tin Plated Brass	0.7-2.1	3.0	Tab, lanced	1-1627133-3	Reel of 7,000

## Universal Mate-N-Lok (UMNL) Connector System

### Product Overview:

- Pin & socket terminal connector system
- Polarised housings with locking clips
- Field installable

### Performance Characteristics

**Dielectric Withstanding Voltage**  
5.0 KVAC or 10.0 KDVC between adjacent circuits

**Insulation Resistance**  
1000 megohms minimum initial between adjacent circuits

**Voltage Rating** 600V AC or DC

### Connector Mating

Solid Pin – 1.36kg max. per circuit  
Split Pin – 0.68kg max. per circuit

### Connector Unmating

Solid Pin – 0.3kg min. per circuit  
Split Pin – 0.23kg min. per circuit

**Contact Insertion Force** 2.27kg max. per contact

**Contact Retention** 6.81kg min. per contact

**Durability** 50 cycles, mating and unmating<sup>1</sup>

### Housings

Number of Circuits	A (mm/inch)	Housing Part Numbers	
		Plug	Cap
1	–	1-350867-0	770421-1
2	13.97 .550	1-480698-0 <sup>1</sup>	1-480699-0 <sup>1</sup>
3	20.32 .800	1-480700-0 <sup>1</sup>	1-480701-0 <sup>1</sup>
4	26.67 1.050	1-480702-0 <sup>1</sup>	1-480703-0 <sup>1</sup>
5	33.02 1.300	1-480763-0 <sup>1</sup>	1-480764-0 <sup>1</sup>
6	39.37 1.550	1-480704-0 <sup>1</sup>	1-480705-0 <sup>1</sup>
8	52.07 2.050	640586-1 <sup>1</sup>	926308-1 <sup>1</sup>
9	20.32 .800	1-480706-0	1-480707-0
10	64.77 2.550	926302-1 <sup>1</sup>	926309-1 <sup>1</sup>
12	26.67 1.050	1-480708-0	1-480709-0
15	33.02 1.300	1-480710-0	1-480711-0

### Notes:

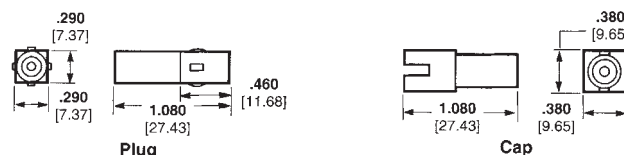
<sup>1</sup>In-Line style

<sup>2</sup>Housing material has 125°C temperature rating

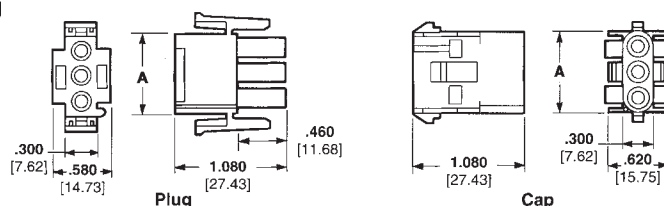
- UL94V-0 Nylon versions are available on request

### Free Hanging or Panel Mount Housings

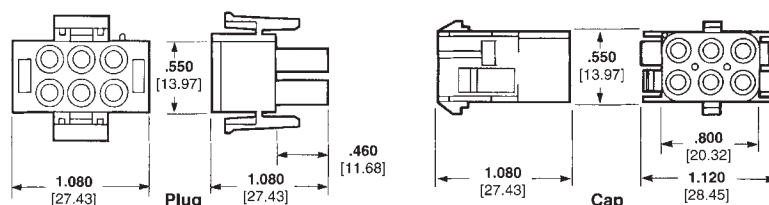
#### 1 Circuit, Free Hanging



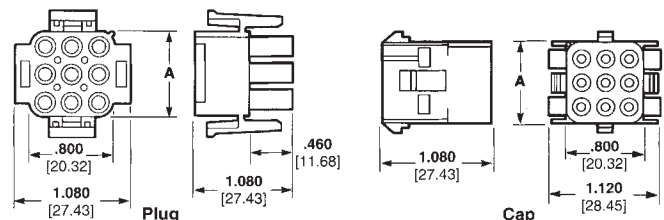
#### 2, 3, 4, 5, 6, 8 and 10 Circuit, In-Line



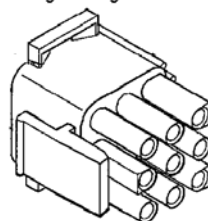
#### 6 Circuit, Matrix



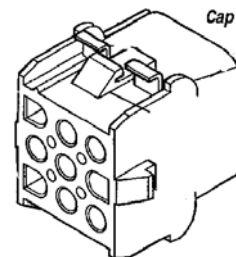
#### 9, 12 and 15 Circuit, Matrix

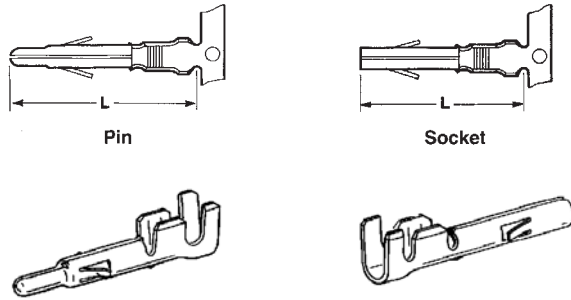


Plug Housing



Cap Housing



**Universal Mate-N-Lok (UMNL) Pin Connector System (cont'd)**

**Pin & Socket Contacts**

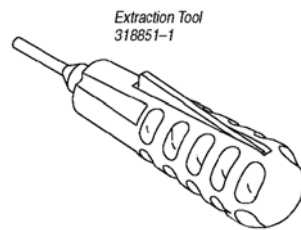
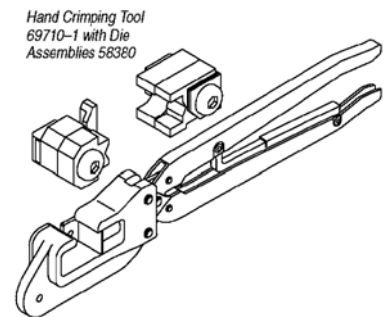
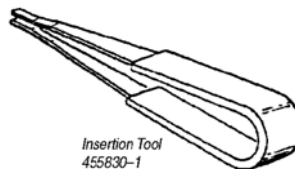
Wire Size Range AWG [mm <sup>2</sup> ]	Ins. Dia. Range	L Dim. Pin	L Dim. Socket	Material & Finish	Part Numbers			
					Pin Loose Form	Pin Strip Form	Socket Loose Form	Socket Strip Form
24-18 [.2-.8]	.040-.100 1.02-2.54	.790 20.06	.760 19.30	Brass, Pre-tin	350690-1	350561-1	350689-1 <sup>1</sup>	350851-1
20-14 [.5-2.0]	.060-.130 1.52-3.30	.790 20.06	.760 19.30	Brass, Pre-tin	350547-1	350218-1	350550-1 <sup>1</sup>	350536-1

**Note:**

- <sup>1</sup> Socket Contact – 0.254mm [0.010"] stock thickness
- Stock thickness 0.305mm [0.012"] unless otherwise noted
- Solid pin diameter 2.13mm [.084"]
- Split pin diameter 2.18mm [0.086"]
- Gold plated versions available upon request

**Installation Tools**

Description	Part Nos
Extraction Tool	318851-1
Insertion Tool	455830-1
Hand Crimp Tool	69710-1
Die Set for Crimp Tool	58380


 Extraction Tool  
318851-1

 Hand Crimping Tool  
69710-1 with Die  
Assemblies 58380

 Insertion Tool  
455830-1

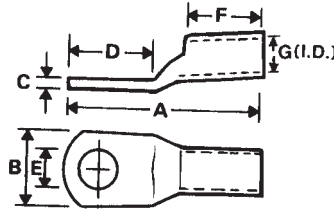
For more information, refer catalogue 82181

**Copper Lugs & Links**

**Products covered in this Section:**

- **Copper Crimp Lugs**
- **Copper Crimp Links**

For higher current applications, or where quality copper lugs are required, our UTILUX range is not only extensive, but made to last. For switch boards, or other Industrial applications, our UTILUX Lugs and Links are another benchmark range.

**Uninsulated Copper Crimp Lugs**


Product Code	Wire Size (mm <sup>2</sup> )	Conductor Stranding	Stud Size	Dim A (mm)	Dim B (mm)	Dim C (mm)	Dim D (mm)	Dim F (mm)	Dim G (mm)	No. of Crimps				Part Nos	Reel/Pack size	
										76B	00	18	21			22
H1399			M4	17.5	6.4	1.4	9.5	6.0	2.1						1-1627693-0	Packs of 100
H1400			M4	19.1	6.4	1.4	11.1	6.0	2.1	1	1	1	-	-	1-1627694-0	Packs of 100
H1401S			M5	19.1	8.7	1.0	11.1	6.0	2.1	1	1	1	-	-	9-1661590-4	Packs of 100
H1401L	0.5	1/0.80	M5	26.6	8.7	1.0	15.1	9.5	2.1	2	2	1	-	-	1-1627695-0	Packs of 100
H1402			M6	26.2	10.3	0.9	15.1	9.5	2.1	2	2	1	-	-	1-1627696-0	Packs of 100
H1402A			M8	26.2	11.1	0.8	15.1	9.5	2.1	2	2	1	-	-	9-1200122-5	Packs of 100
H1436A			M4	21.4	9.1	1.1	11.9	8.0	2.5	2	1	1	-	-	1-1627722-1	Packs of 100
H1436	2.5	7/0.67	M5	21.4	9.1	1.1	11.9	8.0	2.5	2	1	1	-	-	2-1661591-0	Packs of 100
H1437			M6	26.2	10.3	0.9	15.1	8.7	2.5	2	2	1	-	-	9-1200110-4	Packs of 100
H1437A			M8	26.2	10.3	0.9	15.1	8.7	2.5	2	2	1	-	-	1-1627723-2	Packs of 10
H1403S			M5	21.0	8.7	1.5	11.1	8.0	3.3	2	1	1	-	-	1-1627697-1	Packs of 25
															9-1661590-5	Packs of 100
H1403L			M5	27.3	8.7	1.5	14.7	9.2	3.3	2	2	1	-	-	4-1200321-7	Packs of 100
H1404	4.0	7/0.85	M6	27.8	10.3	1.2	15.1	9.5	3.3	2	2	1	-	-	1-1627698-0	Packs of 100
H1404A			M8	28.6	13.0	1.0	13.3	9.5	3.3	2	2	1	-	-	3-1200124-8	Packs of 100
H1404B			M10	28.6	13.0	1.0	16.3	9.5	3.3	2	2	1	-	-	5-1200125-2	Packs of 100
H1405			M6	27.0	10.3	1.2	15.0	9.5	3.7	-	2	1	1	1	9-1200127-5	Packs of 100
H1405A	6.0	7/1.04	M8	28.6	13.9	0.9	16.7	9.5	3.7	-	2	1	1	1	1-1627700-1	Packs of 100
H1405B			M10	28.6	13.9	0.9	16.7	9.5	3.7	-	2	1	1	1	1-1627700-2	Packs of 100
H1406S			M6	27.0	11.9	1.8	15.5	9.5	4.7	-	2	1	1	1	1-1627701-4	Packs of 50
H1406L			M6	29.4	11.9	1.8	15.5	11.5	4.7	-	2	2	1	1	9-1661590-7	Packs of 50
H1406A	10.0	7/1.35	M8	28.6	14.3	1.6	16.3	9.5	4.7	-	2	1	1	1	1-1627701-0	Packs of 50
H1406B			M10	30.6	14.3	1.6	16.3	9.5	4.7	-	2	1	1	1	9-1661590-6	Packs of 50
H1407A			M5	39.7	11.6	2.3	16.3	20.6	5.5	-	-	3*	2	2	9-1661590-8	Packs of 50
H1407			M6	39.7	11.6	2.3	16.3	20.6	5.5	-	-	3*	2	2	1-1627702-0	Packs of 50
H1408	16.0	7/1.70	M8	39.7	13.5	1.9	16.3	20.6	5.5	-	-	3*	2	2	1-1627703-0	Packs of 50
H1408A			M10	41.5	13.5	1.9	18.5	20.6	5.5	-	-	3*	2	2	1-1627703-1	Packs of 50
H1445			M11	43.6	16.7	2.8	19.0	22.2	5.5	-	-	-	2	2	2-1661591-2	Packs of 50
H1409			M6	34.9	12.5	2.3	14.3	19.0	6.3	-	-	-	2	2	1-1627704-0	Packs of 100
H1410	20.0	19/0.44	M8	42.1	13.5	2.2	19.0	20.3	6.3	-	-	-	2	2	1-1627705-0	Packs of 100
H1411			M10	42.1	14.3	2.0	19.0	20.3	6.3	-	-	-	2	2	1-1627706-0	Packs of 100
H1415A			M6	43.6	14.7	2.2	19.0	22.0	7.1	-	-	-	2	2	1-1627709-1	Packs of 50
H1415			M8	43.6	14.7	2.2	19.0	22.0	7.1	-	-	-	2	2	1-1627709-0	Packs of 50
H1416	25.0	19/1.35	M10	43.6	16.7	1.9	19.0	22.0	7.1	-	-	-	2	2	1-1661591-2	Packs of 50
H1416B			M12	51.0	18.2	1.7	25.4	21.0	7.1	-	-	-	2	2	1-1627710-1	Packs of 50
H1365			M6	43.6	18.2	2.7	19.0	22.2	8.4	-	-	-	2	2	1-1627665-0	Packs of 50
H1366	35.0	19/1.53	M8	43.6	18.2	2.7	19.0	22.2	8.4	-	-	-	2	2	2-1200113-9	Packs of 50
H1368			M10	43.6	18.2	2.7	19.0	22.2	8.4	-	-	-	2	2	1-1627668-0	Packs of 50
H1369			M12	51.2	20.0	2.2	24.5	22.0	8.4	-	-	-	2	2	1-1627671-0	Packs of 50
H1442	38.0	7/0.104	M11	51.6	19.0	3.7	27.0	22.2	8.7	-	-	-	2	2	3-1200121-8	Packs of 25
H1419			M8	51.6	18.2	3.1	27.0	22.2	9.5	-	-	-	2	2	1-1627711-0	Packs of 25
H1420	50.0	19/1.78	M10	51.6	19.0	3.1	27.0	22.2	9.5	-	-	-	2	2	1-1627712-0	Packs of 25
H1421			M12	51.6	20.6	2.8	27.0	22.2	9.5	-	-	-	2	2	1-1627713-0	Packs of 25

**Notes:**

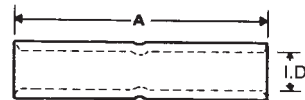
- H1439 is H1438 sleeved to suit 19/0.083
- "No. of Crimps" indicates crimps required using various tools
- all sizes are compatible with Imperial size cables except those marked \*

**Copper Lugs & Links**
**4**
**Copper Lugs & Links**
**Uninsulated Copper Crimp Lugs (cont'd)**

Product Code	Wire Size (mm <sup>2</sup> )	Conductor Stranding	Stud Size	Dim A (mm)	Dim B (mm)	Dim C (mm)	Dim D (mm)	Dim F (mm)	Dim G (mm)	No. of Crimps				Part Nos	Reel/Pack size	
										76B	00	18	21			22
H1422B	70.0	19/2.14	M6	54.0	20.6	3.2	27.0	23.0	11.0	-	-	-	-	2	9-1200106-4	Packs of 25
H1422A			M8	54.0	20.6	3.2	27.0	23.0	11.0	-	-	-	-	2	1-1627714-1	Packs of 25
H1422			M10	54.0	20.6	3.2	27.0	23.0	11.0	-	-	-	-	2	1-1627714-0	Packs of 25
H1423			M12	54.0	20.6	3.2	27.0	23.0	11.0	-	-	-	-	2	1-1661591-6	Packs of 25
H1423A			M16	54.2	27.5	2.4	27.0	22.0	11.0	-	-	-	-	2	5-1200128-0	Packs of 25
H1443			M11	54.0	22.2	4.7	27.0	23.0	11.0	-	-	-	-	2	1-1200095-2	Packs of 25
H1439			M20	76.0	28.6	3.5	45.0	25.4	11.0	-	-	-	-	-	1-1627725-0	Packs of 25
H1424B			M6	57.2	25.4	4.0	27.0	27.0	13.4	-	-	-	-	2	1-1200125-8	Packs of 25
H1424C			M8	57.2	25.4	4.0	27.0	27.0	13.4	-	-	-	-	2	1-1200128-4	Packs of 25
H1424			M10	57.2	25.4	4.0	27.0	27.0	13.4	-	-	-	-	2	1-1627716-0	Packs of 25
H1425	M12	57.2	25.4	4.0	27.0	27.0	13.4	-	-	-	-	2	1-1627717-0	Packs of 25		
H1440	M16	75.5	27.0	3.7	45.0	25.4	13.4	-	-	-	-	2	2-1661591-1	Packs of 25		
H1438	M20	75.5	28.6	3.5	45.0	25.4	13.4	-	-	-	-	2	6-1200120-6	Packs of 25		

**Notes (cont'd):**

- all lugs made of Tin Plated seamless copper tube
- suitable for copper conductors with wire range of 0.5-1000 mm<sup>2</sup> (wire size marked on lug)
- tested to AS/NZS 4325.1:1995
- "No. of Crimps" indicates crimps required using various tools

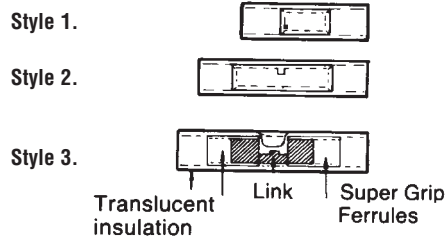
**Uninsulated Copper Crimp Links**


Product Code	Wire Size (mm <sup>2</sup> )	Conductor Stranding	Length A (mm)	Internal Diam (mm)	No. of Crimps				Part Nos	Reel/Pack size
					00	18	21	22		
H1451	0.5	1/0.80	22.0	2.1	2	-	-	-	1-1627734-1	Pack of 25
									1-1627734-0	Pack of 100
H1467	2.5	7/0.67	22.0	2.5	2	-	-	-	1-1627746-0	Pack of 100
H1452	4.0	7/0.85	22.0	3.3	2	1	-	-	1-1627735-0	Pack of 25
									2-1661591-3	Pack of 50
H1453	6.0	7/1.04	22.0	3.7	2	1	2	2	2-1661591-4	Pack of 50
H1454	10.0	7/1.35	22.0	4.7	2	1	2	2	1-1627737-0	Pack of 50
H1455	16.0	7/1.70	44.0	5.5	-	3	2	2	1-1627738-0	Pack of 50
H1456	20.0	19/0.44	44.0	6.3	-	-	2	2	9-1200100-5	Packs of 50
H1458	25.0	19/1.35	48.0	7.1	-	-	2	2	2-1661591-5	Pack of 50
H1488	35.0	19/1.53	48.0	8.4	-	-	2	2	1-1627751-0	Pack of 25
H1460	50.0	19/1.78	48.0	9.5	-	-	2	2	2-1661591-6	Pack of 25
H1461	70.0	19/2.14	51.0	11.0	-	-	-	2	2-1661591-7	Pack of 20
H1462	95.0	37/1.78	54.0	13.4	-	-	-	2	2-1661591-8	Pack of 20

**Notes:**

- all sizes of crimp links are compatible with Imperial size cables
- "No. of Crimps" indicates crimps required using various tools

**SECTION 4**

**Pre-insulated Copper Crimp Links**


Product Code	RBV	Wire Size (mm <sup>2</sup> )	Max Insul Diam (mm)	Length A (mm)	Tooling	Part Nos	Reel/Pack size
<b>Crimp Links with Parallel Splice Conductor (Style 1)</b>							
H2068	RED	0.5-1.5	3.2	15.9	#76B, #11C, #11B, #63-4B, #102, #120	1-1659218-0	Pack of 100
H2069	BLUE	1.5-2.5	4.0	7.9	#76B, #12C, #12B, #63-4U, #102, #120	1-1659219-0	Pack of 100
H2070	YELLOW	2.5-6.0	5.5	20.4	#76B, #13B, #63-5U, #102, #120	1-1659220-0	Pack of 50
<b>Crimp Links with Centre Dimple (Style 2)</b>							
H2071	RED	0.5-1.5	3.2	22.2	#76B, #11C, #11B, #63-4B, #102, #120	1-1659221-0	Pack of 50
						1-1659221-1	Box of 1,000
H2072	BLUE	1.5-2.5	4.0	25.4	#76B, #12C, #12B, #63-4U, #102, #120	3-1200113-9	Pack of 15
						1-1659222-0	Pack of 100
						1-1659222-1	Box of 1,000
H2073	YELLOW	2.5-6.0	5.0	27.0	#76B, #13B, #63-5U, #102, #120	1-1659223-0	Pack of 50
<b>Supergrip Splice (Style 3)</b>							
H3910	RED	0.5-1.5	4.0	31.0	#76B, #11C, #11B, #63-4B, #102, #120	1-1659402-0	Pack of 50
H3911	BLUE	1.5-2.5	4.6	31.0	#76B, #12C, #12B, #63-4U, #102, #120	1-1659403-0	Pack of 50
H3912	YELLOW	2.5-6.0	6.2	41.0	#76B, #13B, #63-5U, #102, #120	1-1659404-0	Pack of 50

**Notes:**

- all lugs made of Tin Plated seamless copper tube with PVC insulation
- centre dimple to ensure correct conductor traverse inside link

**Style 1.** Parallel splice conductor area shown is total of two (or more) conductors to be connected parallel. Ideal for inline joints between uneven sized conductor – vinyl insulation.

**Style 2.** Centre dimple to ensure correct conductor positions – vinyl insulation.

**Style 3.** Supergrip butt splice with translucent insulation (to ensure correct conductor insertion) and depressed centre to enable use in appropriate ratchet crimp tool without removal of stopper.

**Wire Splices & Solder Sleeves****Products covered in this Section:**

- **Heatshrinkable Wire Crimp Splices**
- **Heatshrinkable Wire Solder Sleeves**

From crimp sleeves with heatshrink protection, to full solder splicing, our range is extensive, cost-effective and reliable - just what you expect from Tyco Electronics.



### Heatshrinkable Crimp Splices

#### Raychem Crimp Splices

Leading the way in polymer technology, our range of crimp splices offer economy and high performance.

**DuraSeal:**  
High Performance Nylon, Encapsulant-lined, Heatshrinkable Wire Splices

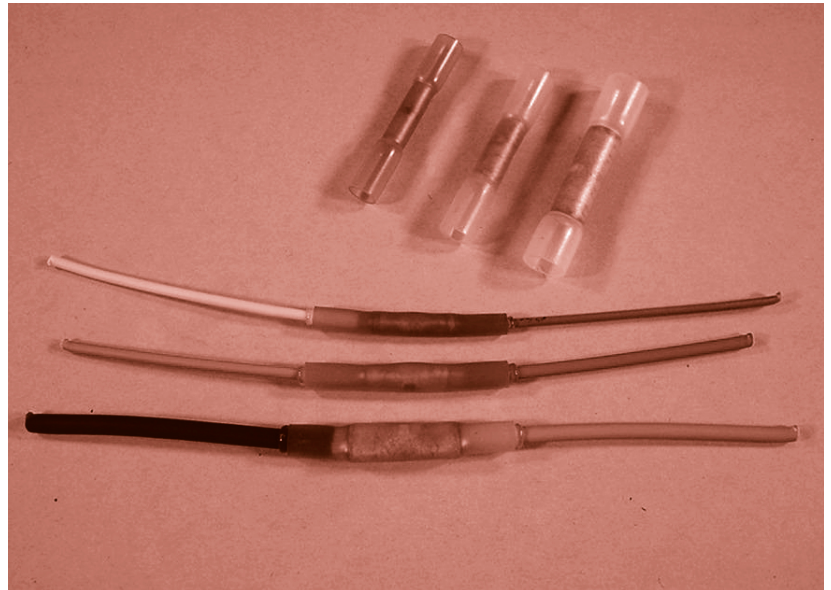
#### Product Overview:

- In-line strain relief
- Resistance to moisture and abrasion
- Protection from wire pull-out
- Easy installation - just crimp & heat
- UL and CUL listed



**PolyCrimp:**  
Economical Polyolefin, Encapsulant-lined, Heatshrinkable Wire Splices

- One-piece design with pre-installed crimp barrel
- Adhesive lined, dual wall polyethylene tubing provides strain relief and wire protection in harsh environments
- Translucent tubing for inspection of wire crimp
- Different wire sizes are colour coded for easy identification
- Easy installation - just crimp & heat



DuraSeal and PolyCrimp products insulate and protect electrical connections from mechanical abuse, wire pull-out, and abrasion while resisting water, salt, and other contaminants. by providing a tough, environmentally sealed wire connection.

Their crimp barrel is encased in a rugged, heat-shrinkable tubing lined with a special hot-melt adhesive, that resists damage from abrasions and cuts.

DuraSeal features nylon insulation, with PolyCrimp offering a lower cost polyolefin insulation.

Both devices retain flexibility and impact-resistance long after similar products have become brittle.

Both accommodate wire gauge sizes from 22 to 10 AWG. And both are colour-coded for easy identification of gauge sizes, yet are transparent for inspection of the finished splice.

#### Applications

- Automotive cable harness repairs
- Alarm installation
- Marine cable harnesses
- Telecommunication cable splicing
- Pump motor wiring
- General industrial

**Wire Splices & Solder Sleeves**
**Heatshrinkable Crimp Splices (cont'd)**
**Electrical**

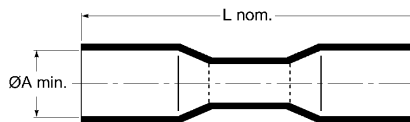
- Dielectric strength - 2500 VAC
- Insulation resistance - 1000 Megohms at 100VDC
- Voltage rating - 600 VAC max.

**Chemical**

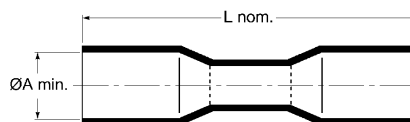
Meets electrical test after conditioning in diesel fuel, brake fluid, ASTM fuel C and engine degreaser

**Mechanical**

- Operating temperature: -55°C to 125°C
  - Minimum shrink temperature: 150°C
  - Shrink ratio: approximately 2 to 1
  - Wire pullout after crimping and recovery\*:  
 Red - 6.8kg  
 Blue - 18.14kg  
 Yellow - 22.7kg
- \*when minimum wire gauge specified is installed

**DuraSeal**


Product Code	Butt Splice Dimensions		Colour	Wire Dimensions			Part Nos	Pack Size
	A min (mm)	L nom (mm)		Conductor (AWG)	Insulation OD max (mm)	Insulation OD min (mm)		
D-406-0001	3.68	31.75	Red	22-18	3.56	1.40	1-1197480-4	1,000
D-406-0002	4.57	31.75	Blue	16-14	4.45	2.03	5-1193408-9	1,000
D-406-0003	6.35	31.75	Yellow	12-10	6.22	2.79	0-1190796-1	500

**PolyCrimp**


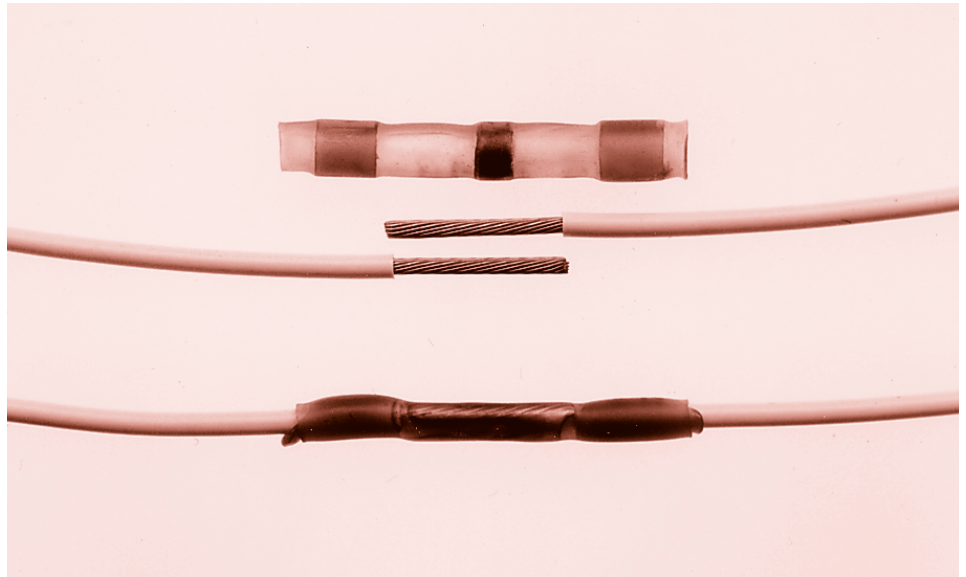
Product Code	Butt Splice Dimensions		Colour	Wire Dimensions			Part Nos	Pack Size
	A min (mm)	L nom (mm)		Conductor (AWG)	Insulation OD max (mm)	Insulation OD min (mm)		
C-203-01	3.68	37.5	Red	22-18	3.56	1.40	8-1199945-7	1,000
C-203-02	4.57	37.5	Blue	16-14	4.45	2.03	7-1199945-2	1,000
C-203-03	6.35	38.1	Yellow	12-10	6.22	2.79	6-1199945-8	500

Heatshrinkable Solder Splices

SolderSleeves:  
Heatshrinkable Solder Wire  
Splices

Product Facts

- Transparent polyolefin sleeve provides encapsulation, crimp inspection, strain relief, & insulation
- Pre-fluxed solder preform provides a controlled soldering process
- One-piece design makes installation easy and lowers installation cost
- UL and CUL recognised



Applications

In-line wire splices.

Product Options

Product Series	Minimum Wire Temperature Rating	Maximum Operating Temperature	Intended Application Environment
CWT	85°C	125°C	Splashproof

Product Selection Process

1. Determine wire gauge sizes for both sides of splice.
2. Determine number of wires (one or two wires) for each side of splice.
3. Select part numbers from the table on the next page

If the application has more than one size of wire per side, or more than two wires on either side, consult Tyco Electronics for assistance with product selection.

While all combinations listed will provide satisfactory solder joints, the degree of strain relief obtained depends on the outer diameter of the wires being joined.

Wires 16 AWG (1.21 mm<sup>2</sup>) and larger, and wires having more than 19 strands, should be pre-tinned prior to splicing, to obtain the optimum solder joint quality.

For wires sizes smaller than 26AWG, contact Tyco Electronics.

## Heatshrinkable Solder Splices (cont'd)

### SolderSleeve Wire Splices - CWT Series Selector Guide

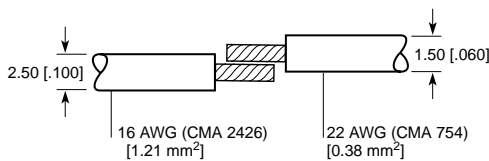
Side A:		Side B: Size and Number of Conductors							
Size and Number of Conductors		26 AWG		24 AWG		22 AWG		20 AWG	
		1	2	1	2	1	2	1	2
26 AWG	1	CWT-9001	CWT-9001	CWT-9001	CWT-9001	CWT-9001	CWT-9002	CWT-9002	CWT-9002
	2	CWT-9001	CWT-9001	CWT-9001	CWT-9002	CWT-9001	CWT-9002	CWT-9002	CWT-9002
24 AWG	1	CWT-9001	CWT-9001	CWT-9001	CWT-9001	CWT-9001	CWT-9002	CWT-9002	CWT-9002
	2	CWT-9001	CWT-9002	CWT-9001	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002
22 AWG	1	CWT-9001	CWT-9001	CWT-9001	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002
	2	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9003
20 AWG	1	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9003
	2	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9003	CWT-9003	CWT-9003
18 AWG	1	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9003
	2	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003
16 AWG	1	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9002	CWT-9003	CWT-9003	CWT-9003
	2	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003
14 AWG	1	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003
	2	CWT-9004	CWT-9004	CWT-9004	CWT-9004	CWT-9004	CWT-9004	CWT-9004	CWT-9004
12 AWG	1	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9004
	2	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005
10 AWG	1	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005

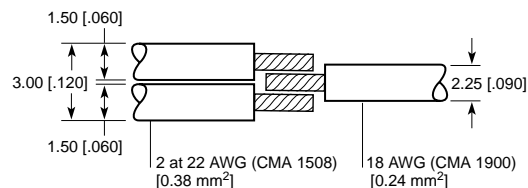
Side A:		Side B: Size and Number of Conductors								
Size and Number of Conductors		18 AWG		16 AWG		14 AWG		12 AWG		10 AWG
		1	2	1	2	1	2	1	2	1
26 AWG	1	CWT-9002	CWT-9003	CWT-9002	CWT-9003	CWT-9003	CWT-9004	CWT-9003	CWT-9005	CWT-9005
	2	CWT-9002	CWT-9003	CWT-9002	CWT-9003	CWT-9003	CWT-9004	CWT-9003	CWT-9005	CWT-9005
24 AWG	1	CWT-9002	CWT-9003	CWT-9002	CWT-9003	CWT-9003	CWT-9004	CWT-9003	CWT-9005	CWT-9005
	2	CWT-9002	CWT-9003	CWT-9002	CWT-9003	CWT-9003	CWT-9004	CWT-9003	CWT-9005	CWT-9005
22 AWG	1	CWT-9002	CWT-9003	CWT-9002	CWT-9003	CWT-9003	CWT-9004	CWT-9003	CWT-9005	CWT-9005
	2	CWT-9002	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9004	CWT-9003	CWT-9005	CWT-9005
20 AWG	1	CWT-9002	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9004	CWT-9003	CWT-9005	CWT-9005
	2	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9004	CWT-9004	CWT-9005	CWT-9005
18 AWG	1	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9004	CWT-9004	CWT-9005	CWT-9005
	2	CWT-9003	CWT-9003	CWT-9003	CWT-9004	CWT-9003	CWT-9004	CWT-9004	CWT-9005	CWT-9005
16 AWG	1	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9003	CWT-9004	CWT-9004	CWT-9005	CWT-9005
	2	CWT-9003	CWT-9004	CWT-9003	CWT-9004	CWT-9004	CWT-9005	CWT-9004	CWT-9005	CWT-9005
14 AWG	1	CWT-9003	CWT-9003	CWT-9003	CWT-9004	CWT-9003	CWT-9004	CWT-9004	CWT-9005	CWT-9005
	2	CWT-9004	CWT-9004	CWT-9004	CWT-9005	CWT-9004	CWT-9005	CWT-9005	CWT-9005	CWT-9005
12 AWG	1	CWT-9004	CWT-9004	CWT-9004	CWT-9004	CWT-9004	CWT-9005	CWT-9004	CWT-9005	CWT-9005
	2	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005
10 AWG	1	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005	CWT-9005

**Notes:**

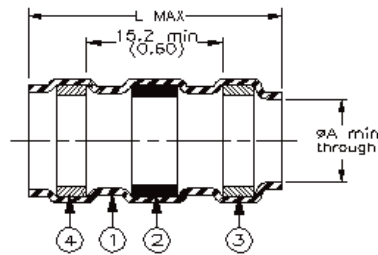
For other splice options, including splicing of two different wire sizes in one side of a splice, or for larger or custom wire sizes, contact Tyco Electronics.

**CMA/mm<sup>2</sup> Examples  
One-to-One Wire Splice**

**Total CMA = 3180**
**Total mm<sup>2</sup> = 1.59**

 Correct part number selection from Table E  
(based on CMA/mm<sup>2</sup> and nominal jacket wire OD)

**Multiwire Splice**

**Total CMA = 3408**
**Total mm<sup>2</sup> = 1.71**

 Correct part number selection from Table E  
(based on CMA/mm<sup>2</sup> and nominal jacket wire OD)

**Heatshrinkable Solder Splices (cont'd)**


Product Code	Product Rev	Size Code Color Items 3 & 4	Product Dim		Conductor Dim		Selection Guide		Total CMA	Part Nos	Pack size	
			L max (mm)	A min (mm)	B min (mm)	B max (mm)	Total mm <sup>2</sup> min max	min max				
CWT-9001	C	Clear	26	1.7	0.4	1.7	0.3	0.8	450	1,500	1-1190419-5	Pack of 100
CWT-9002	B	Red	42.0	2.7	1.3	2.7	0.8	2	1,250	3,500	4-1193522-7	Pack of 100
CWT-9003	B	Blue	42.0	4.5	1.8	4.5	2	4	2,500	7,200	4-1190832-5	Pack of 100
CWT-9004	B	Yellow	42.0	6.0	2.8	6.0	4	6	6,100	19,000	3-1195426-6	Pack of 100
CWT-9005	B	Grey	42.0	7.0	3.2	7.0	6	10	12,000	25,000	2-1190624-2	Pack of 100

**MATERIAL (refer diagram above):**

- Insulation Sleeve: Transparent, heat-shrinkable, radiation cross-linked modified polyolefin.
- Solder Preform with Flux:  
Solder: TYPE CD18 per ANSI J-STD-006.  
Flux: TYPE ROM1 per ANSI J-STD-004.
- & 4. Melttable Rings: Thermally stabilised thermoplastic  
Colours as per table above.

**APPLICATIONS:**

- These controlled soldering devices are designed to splice tin plated or bare copper stranded wires rated for at least +85°C.
- Temperature range: -55°C to +125°C.
- For installation procedure and application equipment consult technical document RPIP-850-00.

**Heatshrinkable Splice Tools**

**Raychem AD-1522 Crimp Tool**

Tool has preset crimp depth to ensure optimum crimping, while avoiding crushing of conductors or insulation.

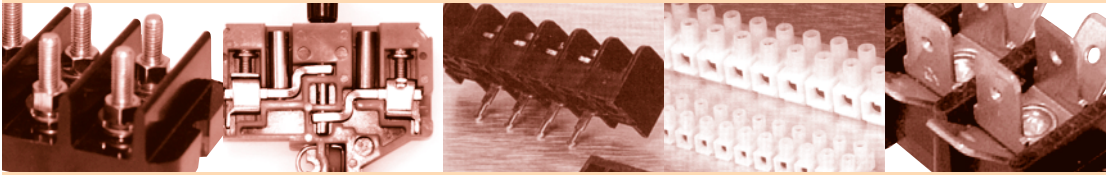
Suitable for PolyCrimp & DuraSeal crimp splices.

**Part No:** 2-1190361-8


**Raychem HL2305LCD Heat Gun**

This tool has three air flow settings and variable heat control. Optional adaptors are available for use with heatshrink tubing, or solder or heatshrink crimp sleeves.

An optional bench stand is available.

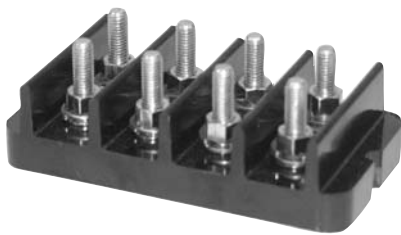
**Terminal Blocks**

**Products covered in this Section:**

- **Terminal Blocks**
  - Fixed Screw Type
  - QC Type
  - Rail Mount Type

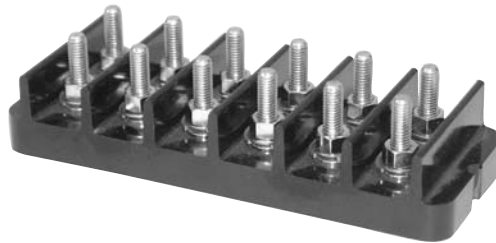
In addition to our Buchanan range (which covers Eurostyle, Barrier Strip, Card edge, Europa and NEMA styles), we offer customers who require economy products, a range of AMP and UTILUX terminal blocks. Ideal for Industrial applications, such as in air-conditioning, heating and ventilation equipment, or a range of other Industrial Machinery applications, our range suits voltages up to 600VAC (eg power feeds to peripheral devices).

**Fixed Screw Terminal Block**
**Product Description:**

- All parts rated 80 amps at 600VAC
- Fixed screw wire termination makes for easy terminations
- Barrier strips minimise risk of short circuits
- Optional jumper links and covers provide design
- Flexibility at a low cost



H2502 4 WAY (120 L X 45 W)



H2501 6 WAY (120 L X 45 W)

H2511 4 WAY (86 L X 45 W)

H2512 5 WAY (104 L X 45 W)

**Links**


H2501M

H2501L

H2502L

H2502M

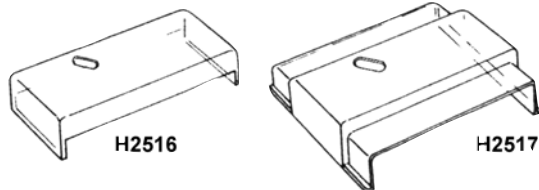
**Cover Securing Nut**


H2508

H2509

**Bridging Link**


H3824P

**Clear Polycarbonate Covers**


H2516

H2517

Product Code (Term. Block)	Type	Includes:	AMP rating at 600V AC	Links	Clear Poly. Covers	Cover Securing Nut
H2501N	6 way	Brass N/P 5mm studs, nuts, spring & flat washers, H2501M slotted link	80	H2501M slotted	H2516 H2517	H2508 H2508
H2501EN	6 way	Brass N/P 5mm studs, nuts, spring & flat washers, H2501L solid link	80	H2501L solid	H2516 H2517	H2508 H2508
H2502	4 way	Brass N/P OBA studs, nuts, spring washers, H2502L solid link	80	H2502L solid	H2516 H2517	H2509 H2509
H2502E	4 way	Brass N/P OBA studs, nuts, spring washers, H2502M slotted link	80	H2502M slotted	H2516 H2517	H2509 H2509
H2511N	4 way	Brass N/P 5mm studs, nuts, spring washers, H2501L solid link	80	H2501L solid	-	-
H2512N	5 way	Brass N/P 6mm studs, nuts, spring washers, H2501L solid link	80	H2501L solid	-	-

## 12-Way Screw Type Terminal Strip

**Product Description:**

- Melamine body
- Phosphor bronze wire protector prevents clamping screw from pinching wire conductors
- Clamping contact is vibration-proof
- Can be cut to length (if additional terminal blocks unused)

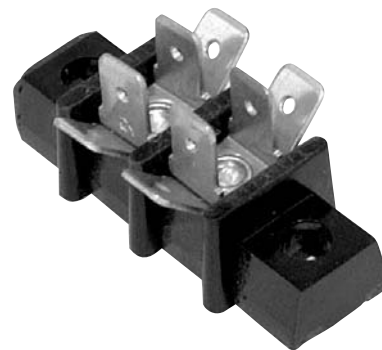


H2519  
LENGTH 133mm

## TB Series Modular Quick Connect (QC) Terminal Block

**Product Description:**

- Two models available:
  - Without barrier strip
  - With barrier strip
- Features modular design - simply select terminal receptacles as required (suits 6.3mm QC receptacles, with QC terminals supplied to your specifications)
- Available in 1 to 17 stations (including mounting holes)
- Mounting holes 4.8mm diameter (hole centres at 11.1mm apart)
- All parts rated 20 amps (for screwed connections)
- Active (A), Neutral (N), Earth (E), engraving available
- Plating is an optional extra
- Special blocks can be made to suit individual requirements
- Used by all leading Domestic Appliance Manufacturers
- Manufactured to Australian standards



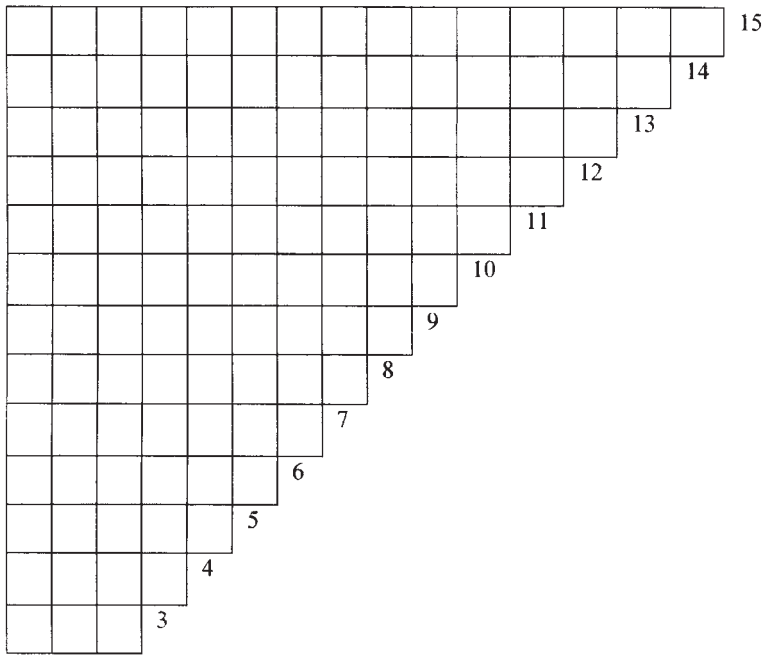
See Specification Guide (for specifying terminal styles required) on following page.



Quick Connect (QC) Terminal Block - Specification Guide



**“NOT TO SCALE”**



Z	
B	
C	
D	
E	
CZ	
F	
G	
H	
U	
I	
J	
K	
N	
Bridge	
X	Fixing Hole

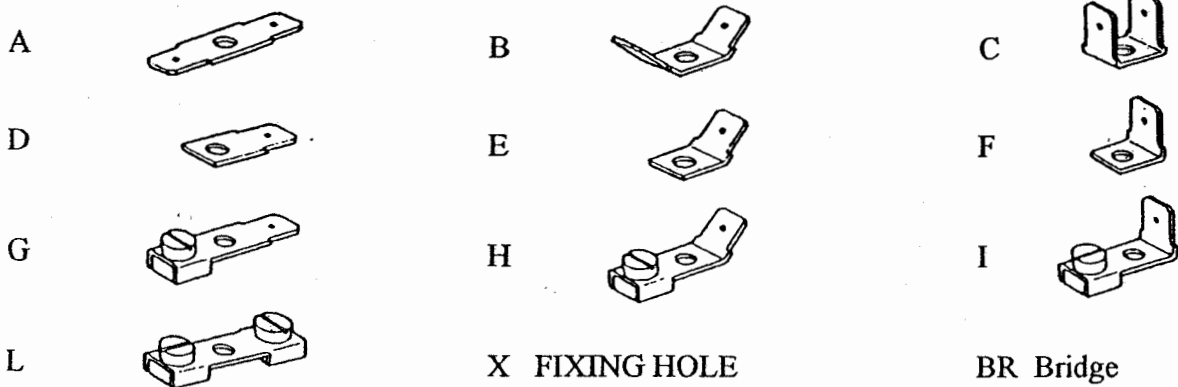
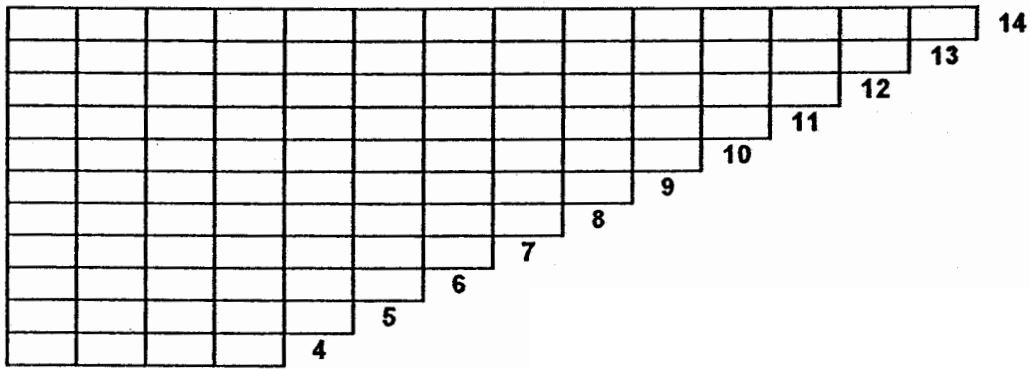
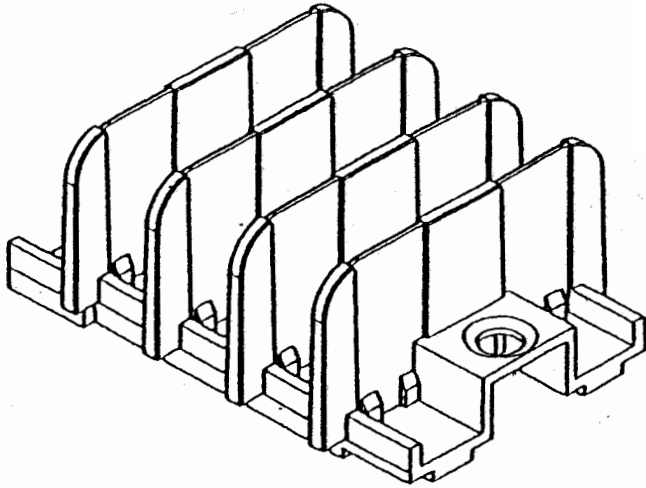
**Order Guide:**

- 1 - Select the row showing the number of positions (including fixing holes) required (3-15 available)
- 2 - In each square, indicate the tab type required (note: must start and end with a fixing hole "X")
- 3 - A typical 4-way, 6-hole block would look like this:

		•		•	
X	A	H	J	N	X
		A	N •	E	

- 4 - "•" denotes position of screw
- 5 - Below terminal type, indicate as A (for Active), N (for Neutral), P (for Positive), or E (for Earth).
- 6 - Other tab variations available on request

## Quick Connect (QC) Strip Terminal Block With Barrier Strip - Specification Guide



**Order Guide:**

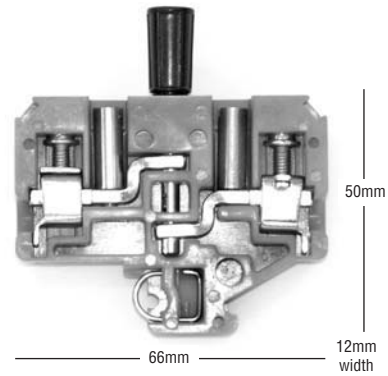
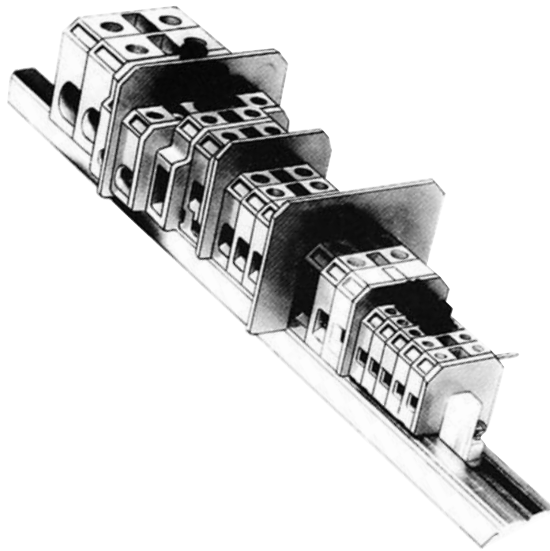
- 1 - Select the number of positions (including fixing holes) required (4-13 available)
- 2 - In each square, indicate the tab type required (note: must start and end with a fixing hole "X")
- 3 - A typical 4-way, 6-hole block is shown in the example above

		•		•	
X	A	H	J	N	X

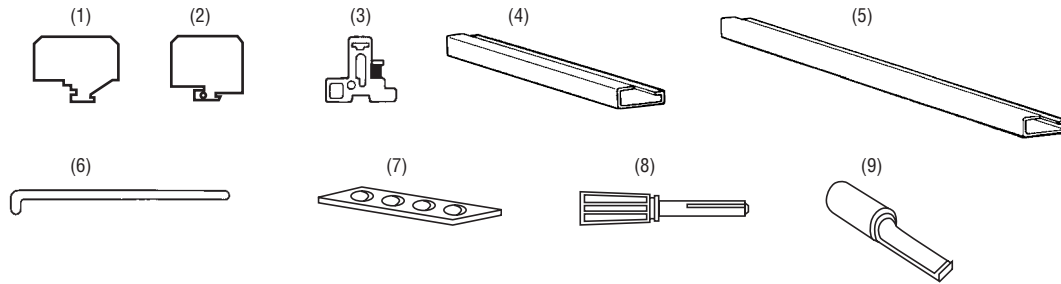
4 - "•" denotes position of screw

**Rail Mount Terminal Blocks**
**Product Description:**

- Manufactured in melamine
- Standard colour is orange
- Higher current ratings may be obtained at lower ambients



Product Code	Rated at 600V AC	Conductor Size (mm <sup>2</sup> )
H2608	25 amps	0.5-10



Product Code	Accessories
H2609 <sup>(1)</sup>	Standard End Plate (melamine)
H3865 <sup>(2)</sup>	Partition
H2232 <sup>(3)</sup>	End Clamp (Nylon)
H2233 <sup>(4)</sup>	460mm Mounting Rail
H2233A <sup>(5)</sup>	1 metre Mounting Rail
H2234A <sup>(6)</sup>	1 metre Locking Pin
H2633 <sup>(7)</sup>	*Bridging Link
H2650 <sup>(8)</sup>	Disconnect Plug
H4207 <sup>(9)</sup>	+Lip Blade Terminal
H4208 <sup>(9)</sup>	+Lip Blade Terminal
H4209 <sup>(9)</sup>	+Lip Blade Terminal

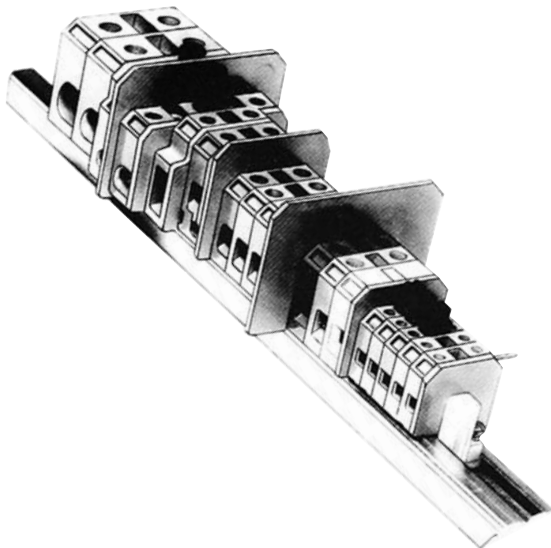
**Notes:**

\*Bridging Link H2633 supplied in either 2 holes or 10 holes. Specify Cat. No. H2633-2 or H2633-10,  
 +See also Lip Blade Terminal part numbers in Section 2 - Pre-Insulated Terminals

## Range Rail Mount Terminal Blocks

**Product Description:**

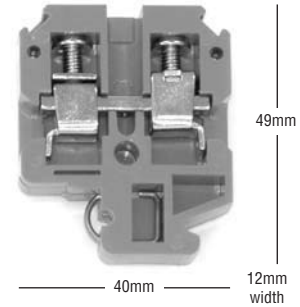
- Manufactured in melamine
- Standard colour is orange
- Higher current ratings may be obtained at lower ambients


**Bar Combinations**


Standard Current Bar



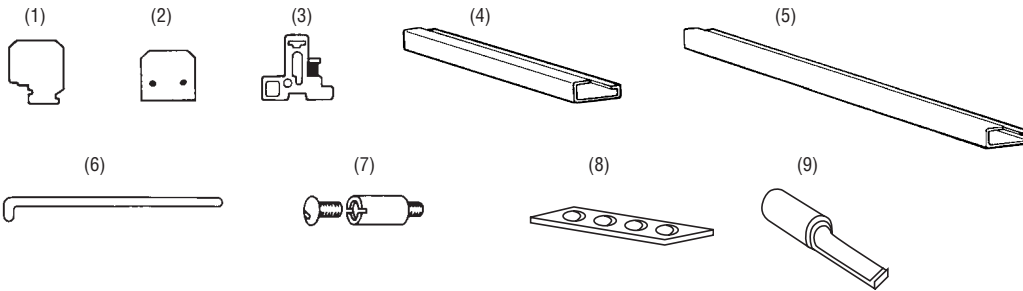
Vee shaped Current Bar



Product Code	Rated at 600V AC	Conductor Size (mm <sup>2</sup> )
H2238	48 amps	0.5-10
H2238V	65amps	2.5-12

**Notes:**

- "Vee" shaped current bar accommodates a larger conductor, hence higher current rating.



Product Code	Accessories
H2239 <sup>(1)</sup>	Standard End Plate (melamine)
H3863 <sup>(2)</sup>	Partition
H2232 <sup>(3)</sup>	End Clamp (Nylon)
H2233 <sup>(4)</sup>	460mm Mounting Rail
H2233A <sup>(5)</sup>	1 metre Mounting Rail
H2234A <sup>(6)</sup>	1 metre Locking Pin
H2236M <sup>(7)</sup>	Link support and screw
H2631 <sup>(8)</sup>	Bridging Link
H4207 <sup>(9)</sup>	+Lip Blade Terminal
H4208 <sup>(9)</sup>	+Lip Blade Terminal
H4209 <sup>(9)</sup>	+Lip Blade Terminal

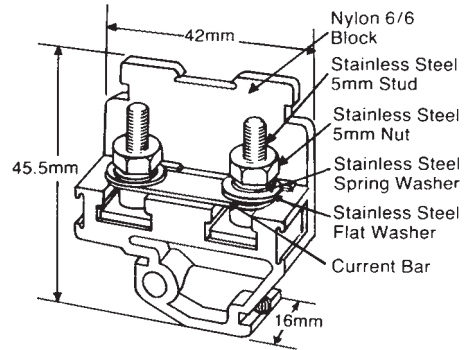
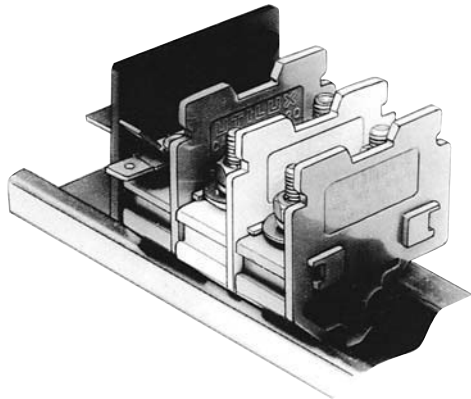
**Notes:**

- +See also Lip Blade Terminal part numbers in Section 2 - Pre-Insulated Terminals

### Stud Type Rail Mounted Terminal Blocks

**Product Description:**

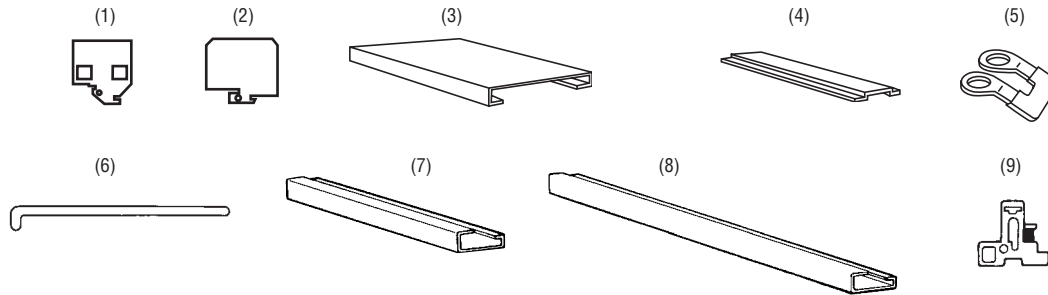
- Vibration-resistant design to reduce risk of connections loosening
- Stud type blocks mean that ring/eye or fork/slotted terminals can be used to ensure more positive connections
- Voltage – 500V max. conductor 7/1.70mm copper



Product Code	Rated at 600V AC	Conductor Type
H3820	30 amps	7 / 1.70mm

**Notes:**

- H3820 is made of Nylon 66 1200C
- Hardware made of Stainless Steel



Product Code	Accessories
H3821 <sup>(1)</sup>	End Plate
H3865 <sup>(2)</sup>	Partition
H3822 <sup>(3)</sup>	Cover (standard length 2m)
H3823 <sup>(4)</sup>	Marker Strip
H3824P <sup>(5)</sup>	Bridging Link
H2234A <sup>(6)</sup>	1 metre Locking Pin
H2233 <sup>(7)</sup>	460mm Mounting Rail
H2233A <sup>(8)</sup>	1 metre Mounting Rail
H2232 <sup>(9)</sup>	Nylon End Clamp


**Products covered in this Section:**

- Plastic Cable Wrap
- Cable Ties
- Heatshrink Tubing & Cable End Caps
- Pin Mounting Clips
- Test Clips

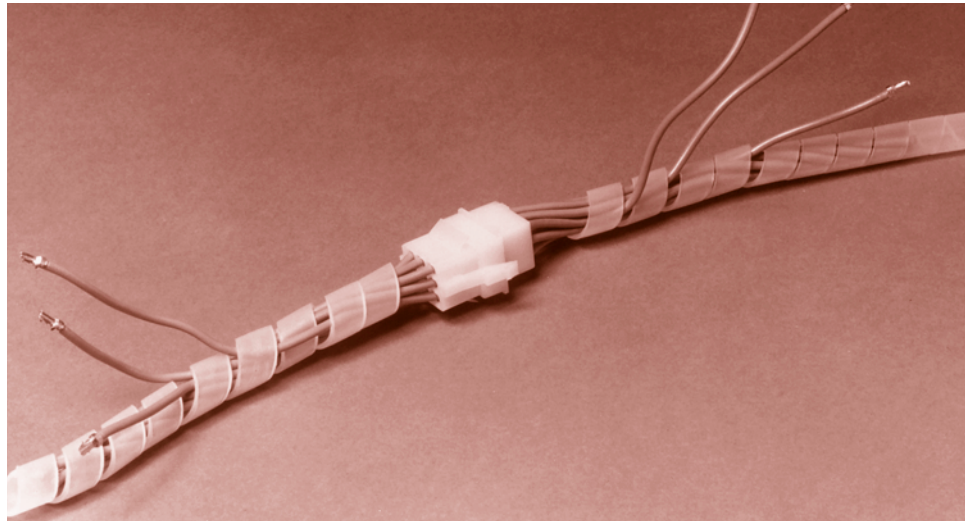
We do more than just terminate wires! We provide products to protect and mount cable harnesses and wire looms, as well as label them.

## Plastic Cable Wrap

**AMP Spirap:**  
Cable Management & protection made easy

**Overview :**

- Provides abrasion protection for wires, cables, tubing, and hoses
- Attractive — makes neat, compact uniform bundles
- Break-out at any point along the bundle
- Moisture resistant — will not hold “cable-rotting” moisture
- Meets commercial and MIL-spec specifications
- Available in three sizes covering from 1.6mm to 100mm diameter bundles
- Available in six materials to accommodate any application need
- Quickly applied by hand or by supplied hand tool



**Performance Characteristics**  
**Operating Temperature Range:**

**Polyethylene**— -76.1°C min.; 101.7°C max.

**Flame Retardant Polyethylene**— -22.2°C min.; 93.3°C max.

**Nylon**— -100°C min.; 148.9°C for 600 hrs max.; 121.1°C for 3,000 hrs max.

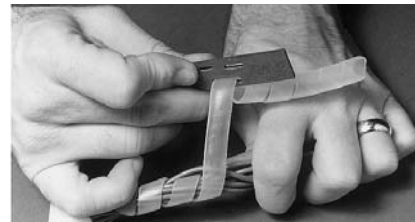
**Fluoropolymer**— -267.8°C min.; 260°C max.

**Outdoor Polyethylene**— -76.1°C min.; 101.7°C max.

**Outdoor Nylon**— -100°C min.; 110°C for 100 hrs max; 93.3°C for 700 hrs max.

**SPIRAP Hand Tool**  
**Part Number 500901**

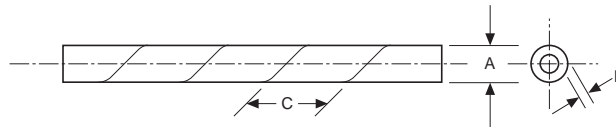
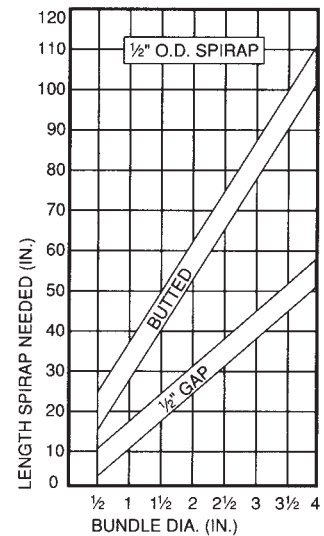
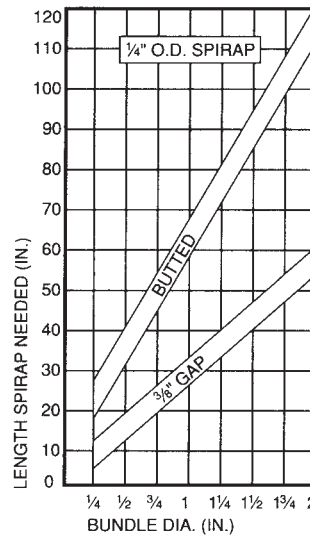
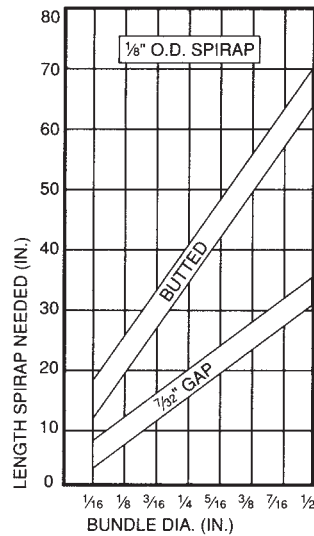
Furnished with each box, the SPIRAP Hand Tool increases the speed of application and permits uniform wrapping along the bundle length. The hand tool is slotted for 3.18mm, 6.35mm and 12.70mm SPIRAP tubing.



## Plastic Cable Wrap (cont'd)

### AMP Spirap Selector Charts

Depending on your wire or cable bundle diameter and length, use these charts to calculate the length of Spirap required for your specific application.



Material	O.D. Size	Max. Bundle Dia. Range	Dimensions			Length m/Box	Part Nos
			A	B	C		
Polyethylene (nat)	3.18	1.59 to 12.70	3.18	.79	5.54	30.48	500000-2
	6.35	4.76 to 50.8	6.35	1.14	9.53	130.48	500001-2
	12.70	9.53 to 101.6	12.70	1.57	12.70	15.24	500002-1
Flame Retardant Polyethylene (white)	6.35	4.76 to 50.8	6.35	1.14	9.53	15.24	500004-1
	12.70	9.53 to 101.6	12.70	1.57	12.70	15.24	500005-1
Nylon (nat)	3.18	1.59 to 12.70	3.18	.38	5.54	30.48	500013-2
	6.35	4.76 to 50.8	6.35	.58	9.53	15.24	500015-1
	12.70	9.53 to 101.6	12.70	.81	12.70	15.24	500017-1
Fluoropolymer (nat)	3.18	1.59 to 12.70	3.18	.25	5.54	15.24	500023-1
	6.35	4.76 to 50.8	6.35	.51	9.53	15.24	500024-1
Outdoor Polyethylene (black)	6.35	4.76 to 50.8	6.35	1.14	9.53	20.48	500030-2
	12.70	9.53 to 101.6	12.70	1.57	12.70	15.24	500031-1
Outdoor Nylon (black)	3.18	1.59 to 12.70	3.18	.25	5.54	15.24	500035-1
	6.35	4.76 to 50.8	6.35	.58	9.53	15.24	500036-1
	12.70	9.53 to 101.6	12.70	1.57	12.70	15.24	500037-1



### Nylon Cable Ties

Whether standard ties for securing wire or cable looms inside equipment enclosures, or specialty ties for securing and identifying cables, our AMP-TY & UTI-Tie cable ties offer the flexibility you need at a competitive price. And with innovative products such as AMP identification ties with label holders, you'll find our range a little different from most.

#### UTI-Tie Standard Cable Ties



Dimensions (Approximate)			Part Number	Colour	Minimum Tensile Strength	Maximum Bundle Diameter	Package Quantity
Length	Width	Thickness					
75mm	2.5mm	1.14mm	5-1200119-1	Natural	80 N	18mm	100
			8-120093-8	Black			100
100mm	2.5mm	1.14mm	1200101-6	Natural	80 N	25mm	100
			6-1200114-4	Black			100
190mm	4.8mm	1.19mm	2-1200096-5	Natural	222 N	55mm	100
			9-1200129-1	Black			100
280mm	4.8mm	1.27mm	9-1200105-7	Natural	134 N	81mm	100
			1200105-5	Black			100

Natural = suitable for Indoor use  
 Black = suitable for Outdoor use (ie UV protected)

#### AMP-TY Clamp Tie with 360° Compression

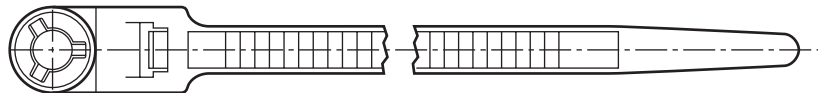
Perfectly round compression, good for use on hoses.



<b>8</b>	<b>.182</b>	<b>.046</b>	4-569654-9	Natural	60 lbs. 27.2 kg	<b>1.75</b> 44.45	100
205.46	4.63	1.17					

#### AMP-TY Stud Mount for 1/4-20 UNC Stud

Slides on and is retained by pre-mounted stud.



<b>16</b>	<b>.302</b>	<b>.078</b>	1-569655-9	Natural	120 lbs. 54.4 kg	<b>4.00</b> 101.6	50
406.86	7.67	1.98					

Other lengths available.

## Nylon Cable Ties (cont'd)

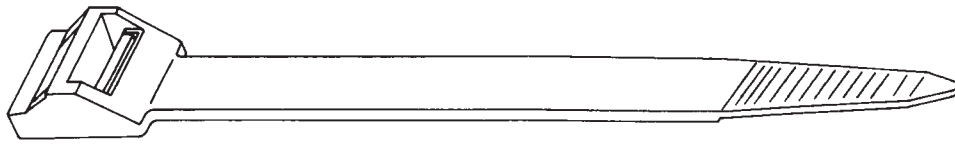
### AMP-TY Heavy Duty Cable Ties



Dimensions (Approximate)			Part Number	Colour	Minimum Tensile Strength	Maximum Bundle Diameter	Package Quantity	Government Designation*
Length	Width	Thickness						
226.0	7.59	1.60	3-603225-9	Natural	534 N	50.8	500	—
			3-603225-0	Black			500	—
			4-603225-9	Natural			50	—
			4-603225-0	Black			50	—
390.0	7.7	1.98	3-604773-9	Natural	534 N	101.6	500	MS3367-3
			3-604773-0	Black			500	
			1-604773-9	Natural			100	
			1-604773-0	Black			100	
756.0	7.57	1.91	4-603222-9	Natural	534 N	222	50	MS3367-6
			4-603222-0	Black			50	

\*Meets or exceeds the requirements of MIL-S-23190, Type I, Class 1.

### AMP-TY Heavy Duty Lashing Cable Ties



Dimensions (Approximate)			Part Number	Colour	Minimum Tensile Strength	Maximum Bundle Diameter	Package Quantity
Length	Width	Thickness					
516.4	12.5	1.9	5-608689-0	Black	1112.5 N	127.0	25
737.2	12.5	2.2	5-608697-0	Black	1112.5 N	203.2	25
891.3	12.5	2.2	5-608690-0	Black	1112.5 N	254.0	25
891.3	12.5	2.2	5-608691-0*	Black	1112.5 N	254.0	25

\*Releasable.

### AMP-TY Releasable Cable Ties



Dimensions (Approximate)			Part Number	Colour	Minimum Tensile Strength	Maximum Bundle Diameter	Package Quantity
Length	Width	Thickness					
165.0	4.72	1.47	2-608692-9	Natural	222.5 N	34.93	1000
			1-608692-9	Natural			100
			1-608692-0	Black			100
216.0	3.99	1.24	1-604476-9	Natural	178 N	50.8	100
			1-604476-0	Black			100

**Note:** Releasable Heavy Duty Lashing Cable Ties are shown above.

Perfect for prototype construction and service requiring the addition of wires on existing harnesses.

## Nylon Cable Ties (cont'd)

### AMP-TY Screw Mounting Cable Ties



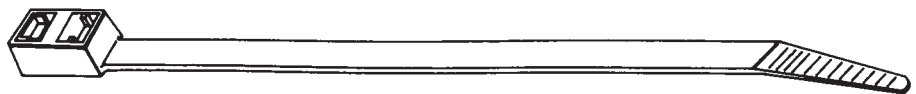
One-piece, all-nylon ties for quick, simple cable mounting. Bundling and mounting are done with one unit.



Dimensions (Approximate)			Mounting Hole Size	Part Number	Colour	Minimum Tensile Strength	Maximum Bundle Diameter	Package Quantity
Length	Width	Thickness						
111.0	2.52	1.07	#4 Screw	1-603231-9	Natural	80.1 N	19.1	100
				1-603231-0	Black			100
162.0	3.61	1.17	#8 Screw	2-608693-0	Black	133.5 N	31.75	1000
				1-608693-9	Natural			100
				1-608693-0	Black			100
215.0	4.78	1.24	#10 Screw	2-608694-9	Natural	222.5 N	44.45	1000
				2-608694-0	Black			1000
				1-608694-9	Natural			100
408.0	4.75	1.40	#10 Screw	1-608694-0	Black	222.5 N	101.6	100
				2-608695-9	Natural			1000
				2-608695-0	Black			1000
413.0	7.80	2.03	1/4" Screw	1-608695-9	Natural	534 N	101.6	100
				1-608695-0	Black			100
				4-608696-9	Natural			50
				4-608696-0	Black			50

### AMP-TY Double Head Cable Ties

Designed to harness two cables simultaneously. The second loop may also serve as a positioning device for a single cable.

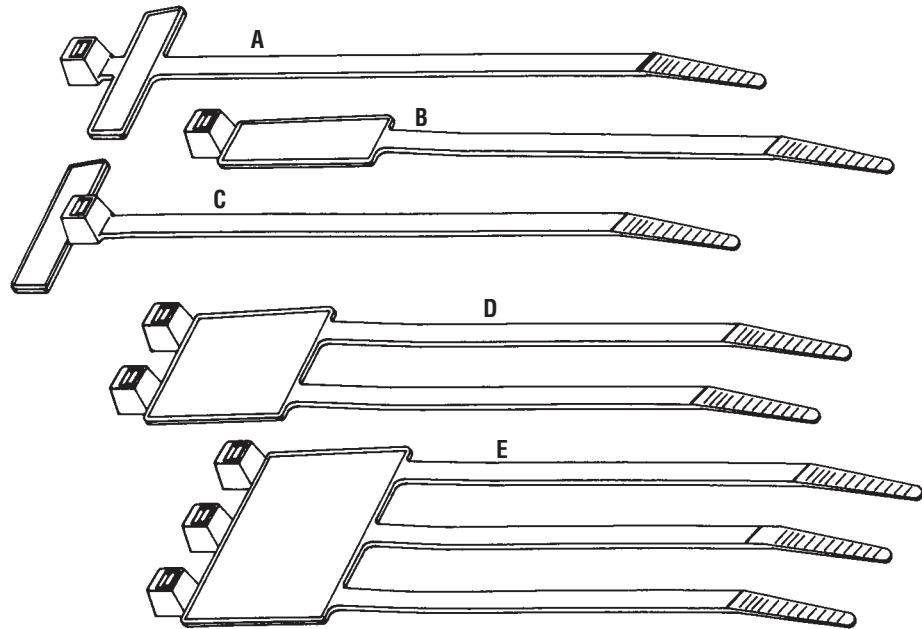


Dimensions (Approximate)			Part Number	Colour	Minimum Tensile Strength	Maximum Bundle Diameter	Package Quantity
Length	Width	Thickness					
210.0	4.70	1.17	1-608698-9	Natural	222.5 N	19.05	100
			1-608698-0	Black			100
390.0	4.7	1.4	1-608700-0	Black	222.5 N	50.8	100

## Nylon Cable Ties (cont'd)

### AMP-TY Identification Cable Ties

Tie and identify bundles of cable in one operation. Large flat area for imprinting or writing the required information.



Style	Dimensions (Approximate)			Part Number	Colour	Minimum Tensile Strength	Maximum Bundle Diameter	Marking Pad Size	Package Quantity	Government Designation*
	Length	Width	Thickness							
A	103.0	2.49	1.04	1-608701-9	Natural	80.1 N	19.1	24.18 x 7.37	100	MS3368-5-E
C	110.0	2.46	.94	1-603230-9	Natural	80.1 N	19.1	18.69 x 7.80	100	—
B	203.0	4.70	1.17	2-608702-9	Natural	222.5 N	44.45	24.54 x 11.05	1000	MS3368-1-A
				1-608702-9	Natural				100	
B	381.0	4.70	1.40	2-608703-9	Natural	222.5 N	101.6	52.71 x 10.90	1000	MS3368-2-A
D	203.0	4.65	1.19	3-608704-9	Natural	222.5 N	44.45	22.17 x 27.18	500	MS3368-3-C
				4-608704-9	Natural				50	
E	203.0	4.65	1.19	6-608789-9	Natural	222.5 N	44.45	22.17 x 44.45	200	MS3368-4-D

\*Meets or exceeds the requirements of MIL-S-23190, Type II, Class 1.

Cable Tie Accessories

**AMP-TY Cable Tie Mount (Screw Type)**

Accommodates ties with maximum tensile strength of 220N

**Part No. 1-350087-0**  
Pack of 100

**Part No. 2-350087-0**  
Pack of 1000

**Note:** Screw not included



**AMP-TY Two-Way Cable Tie Mount**  
Permits entry from two sides.  
Available in two sizes.

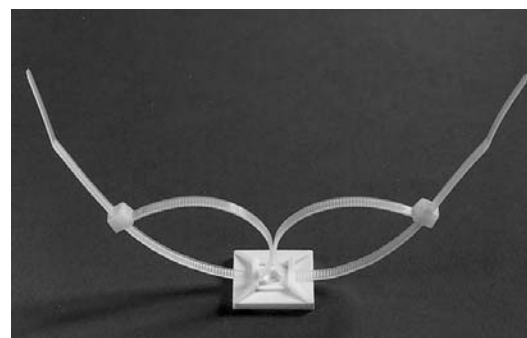


9.6mm x 15.2mm, #6 Screw Hole, without Adhesive Back.  
Accommodates ties with maximum tensile strength of 220N

**Part No. 608801-1**  
Pack of 100

28.7mm x 28.7mm, #6 Screw Hole, with Adhesive\* Back.  
Accommodates ties with maximum tensile strength of 220N

**Part No. 608800-1**  
Pack of 100



**AMP-TY Four-Way Cable Tie Mount**  
Permits entry from four sides.  
Available in two sizes.

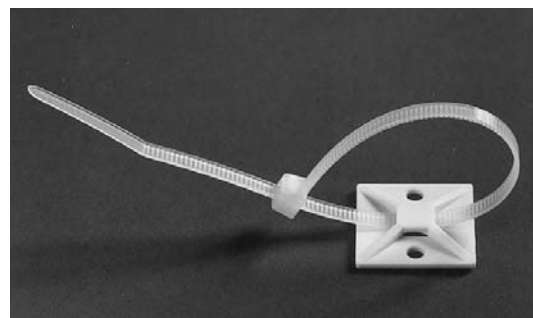


19mm x 19mm, two #4 Screw Holes, with Adhesive\* Back.  
Accommodates ties with maximum tensile strength of 220N

**Part No. 608802-1**  
Pack of 100

28.7mm x 28.7mm, two #8 Screw Holes, with Adhesive\* Back.  
Accommodates ties with maximum tensile strength of 220N

**Part No. 608803-1**  
Pack of 100



**AMP-TY Cable Tie Swivel Mount with Adhesive Back and Screw Holes (4.75mm diam.)**

25mm x 25mm, two .4.8mm Dia. Screw Holes, with Adhesive Back.  
Accommodates ties with maximum tensile strength of 130N

**Part No. 607847-1**  
Pack of 100



\*The rubber-based adhesive backing on these mounts has a tensile strength of 26.7 N per square inch. This rating applies in temperatures from -45°C to 82°C. For best performance, mounts should be applied to a smooth, clean, dry, and oil-free surface.

## Cable Tie Tooling

### Utilux Cable Tie Installation Tool #TG9



#### DESCRIPTION

FEATURES .....	Heavy duty steel, manual cut off
RANGE.....	Suitable for 2.5 to 10mm wide Uti Ties
SIZE.....	190mm
WEIGHT.....	320g

### Utilux Cable Tie Installation Tool #69



#### DESCRIPTION

FEATURES .....	Robust, Tension adjusting dial, auto cut off
RANGE.....	Suitable for 2 to 4.8mm wide Uti-Ties
SIZE.....	165mm
WEIGHT.....	210g

### HeatShrink Tubing

**HFT5000:**  
Heat-Shrinkable, Abrasion-resistant Heatshrinkable Fabric Tubing

**Product Overview:**

- Highly flexible woven fabric tubing
- Polyethylene/polyester construction for excellent abrasion resistance
- Halogen free
- Heat-shrinkable, to grip substrates tightly without additional fixing
- 2:1 shrink ratio for easy installation onto different substrate diameters and sizes
- Highly flexible woven fabric construction for easy, compliant installation onto awkward substrates such as bent hoses
- Outstanding abrasion resistance over a wide temperature range
- Easily cut with standard industrial cutting equipment
- Resistance to harsh environments
- Multifilament construction that ensures soft, safe handling
- Low shrink temperature for safe installation onto heat sensitive substrates



**Applications**

Designed primarily to provide mechanical abrasion protection for components such as rubber hoses, plastic pipes, and harness wiring bundles. Also suitable for other applications, such as noise and rattle suppression.

The woven construction makes HFT5000 extremely flexible and resistant to trapping water, heat and humidity. Provides outstanding abrasion, chafing and cutting protection, even at high temperatures.

**Installation**

Minimum shrink temperature: 80°C  
 Minimum full recovery temperature: 110°C  
 Maximum storage temperature: 60°C

**Operating Temperature Range**

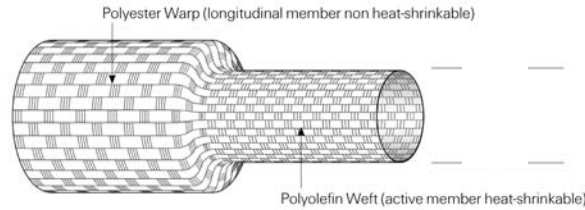
3,000 hours: -40°C to 125°C  
 1,000 hours: -40°C to 150°C

**Specifications/Approvals**

Series	UL	Raychem
HFT5000	E199379	RW-2060

## HeatShrink Tubing (cont'd)

### Product Dimensions



Product Code	Inside Diameter (mm)		Recovered Wall Part Nos	Spool Size (m)/ Min Order Qty (m)
	Minimum Expanded as Supplied	Maximum Recovered After Heating		
<b>Standard Sizes</b>				
HFT5000-12/6-0-SP	12 ± 0.2	6	8-1198112-7	500/500
HFT5000-20/10-0-SP	20 ± 0.2	10	2-1198113-0	400/400
HFT5000-30/15-0-SP	30 ± 0.2	15	6-1198112-7	400/400
HFT5000-40/20-0-SP	40 ± 0.2	20	4-1198113-4	300/300
HFT5000-50/25-SP	50 ± 0.3	25	5-1198112-5	200/200
HFT5000-60/30-0-SP	60 ± 0.3	30	2-1198113-4	200/200
HFT5000-70/35-0-SP	70 ± 0.4	35	7-1198112-4	150/150
<b>Non-Standard Sizes</b>				
HFT5000-25/12-0-SP	25 ± 0.2	12	4-1198113-7	400/400
HFT5000-34/17-0-SP	34 ± 0.2	17	4-1198112-1	350/350
HFT5000-80/40-0-SP	80 ± 0.2	40	3-1198240-3	100/100

### Additional Ordering Information

Colour	Standard = Black
Standard packaging	On spools
Ordering description	Specify product name, size and color (for example, HFT5000-12/6.0)

#### MATERIAL:

1. Warp Material: Polyester
2. Weft Material: Irradiated modified polyolefin
3. Coating: Modified polyolefin

#### APPLICATIONS:

- Automotive & marine cable harnesses.
- Industrial machinery.



**HeatShrink Tubing (cont'd)**

**Versafit:**  
 Highly Flame-Retardant,  
 Very Flexible, Low-Shrink-  
 Temperature, Polyolefin  
 Tubing

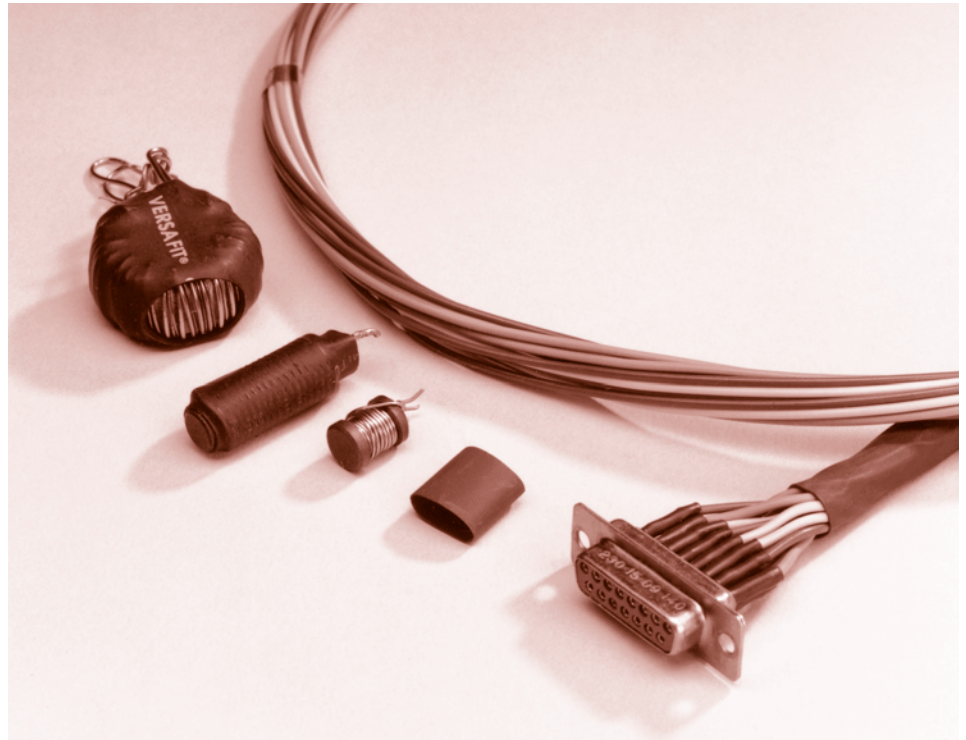
**Product Facts**

- 2:1 shrink ratio
- Low shrink temperature reduces installation time and the risk of damage to temperature-sensitive components
- Very flexible; doesn't easily wrinkle when bent
- Highly flame-retardant
- Hot stamps extremely well
- Higher temperature rating, better thermal stability, and higher resistance to physical abuse than noncrosslinked materials
- Free of polybrominated biphenyls (PBBs) and polybrominated biphenyl oxides and ethers (PBBOs and PBBEs), which are classified as environmentally hazardous substances

**ATUM:**  
 Semi-flexible, General  
 Purpose, Adhesive-lined,  
 Moisture-proof  
 Heatshrinkable Tubing

**Product Facts**

- 3:1 shrink ratio (4:1 avail)
- High shrink ratio mean fewer part numbers cover a wider range of substrates
- Adhesive lining ensures moisture-proof sealing
- Ideal for wire splices, harness breakouts & cable end seals


**Applications**

Cost-effective choice for many commercial and military applications; electrically insulates and protects in-line components, disconnect terminals, and splices. Bundles wires for very flexible light-duty harnesses. Strain-relieves electrical wire connections for commercial applications.

**Installation**
**Versafit:**

Minimum shrink temperature:  
 70°C

Minimum full recovery  
 temperature: 90°C

**ATUM:**

Minimum shrink temperature:  
 80°C

Minimum full recovery  
 temperature: 110°C

**Operating Temperature Range**

**Versafit:** -55°C to 135°C

**ATUM:** -55°C to 110°C

**Specifications/Approvals**

Series			Military	Raychem
Versafit	E35586 VW-1 600 V, 125°C	LR31929 VW-1 600 V, 125°C	AMS-DTL-23053/5*, Classes 1 & 3	RW-3009
ATUM	E85381**	-	AMS-DTL-23053/4 Class 3**	-

\* Formerly MIL-I-23053/5 and MIL-DTL-23053/5

\*\* Black only

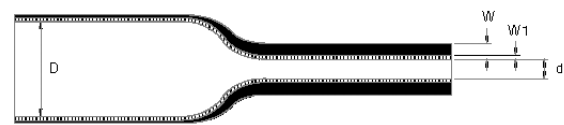
**HeatShrink Tubing (cont'd)**

**Versafit Product Dimensions**

Product Code	Inside Diameter (mm)		Recovered Wall	Part Nos	Spool Size (m)/ Min Order Qty (m)
	D - Minimum Expanded as Supplied	d - Maximum Recovered After Heating	W - Thickness* After Heating		
VERSAFIT-3/64	1.63 ± 0.2	0.6	0.40 ± 0.08	2-1192851-4	30/90
VERSAFIT-1/16	1.85 ± 0.2	0.8	0.43 ± 0.08	2-1194388-0	30/90
VERSAFIT-3/32	2.79 ± 0.2	1.2	0.51 ± 0.08	5-1193905-6	150/150
VERSAFIT-1/8	3.43 ± 0.2	1.6	0.51 ± 0.08	0-6003324-5	150/150
VERSAFIT-3/16	5.21 ± 0.3	2.4	0.51 ± 0.08	5-1193906-0	150/150
VERSAFIT-1/4	7.11 ± 0.3	3.2	0.64 ± 0.08	0-1193626-8	75/75
VERSAFIT-3/8	10.16 ± 0.4	4.8	0.64 ± 0.08	7-1193907-5	121/121
VERSAFIT-1/2	13.72 ± 0.4	6.4	0.64 ± 0.08	2-1193908-7	91/91
VERSAFIT-5/8	16.90 ± 0.4	8.0	0.76 ± 0.08	9-1192792-6	91/182
VERSAFIT-3/4	20.45 ± 0.4	9.5	0.76 ± 0.08	6-1193908-4	76/76
VERSAFIT-1	25.53 ± 0.4	12.7	0.89 ± 0.12	2-1191323-8	60/60
VERSAFIT-1 1/4	33.40 ± 0.7	15.9	1.02 ± 0.15	4-1192735-1	45/315
VERSAFIT-1 1/2	39.88 ± 0.8	19.1	1.02 ± 0.15	8-1197475-3	38/38
VERSAFIT-2	52.83 ± 1.0	25.4	1.14 ± 0.16	5-1190758-6	38/38
VERSAFIT-3	78.49 ± 1.0	38.1	1.27 ± 0.20	5-1193602-6	30/30
VERSAFIT-4	104.14 ± 1.3	50.8	1.40 ± 0.23	5-1195260-8	30/30

**Notes:**

\*Wall thickness will be less if tubing recovery is restricted during shrinkage.


**ATUM Product Dimensions**

Product Code	Inside Diameter (mm)		Recovered Wall	Part Nos	Spool Size (m)/ Min Order Qty (m)
	D - Minimum Expanded as Supplied	d - Maximum Recovered After Heating	W - Thickness* After Heating		
ATUM-3/1-0	3	1	0.5	7-1194343-4	30/30
ATUM-6/2-0	6	2	0.5	5-1194348-1	30/30
ATUM-9/3-0	9	3	0.6	7-1194346-7	30/30
ATUM-12/4-0	12	4	0.7	0-1194350-1	30/30
ATUM-19/6-0	19	6	0.8	9-1193932-6	30/30
ATUM-24/8-0	24	8	1.0	6-1194351-0	30/30
ATUM-40/13-0	40	13	1.0	8-1194352-9	12/12

**Notes:**

- 4:1 shrink version also available (contact Tyco Electronics for details)

**Ordering Information**

Colour	Standard = Black; other colours available on request (contact Tyco Electronics for details)
Size selection	Always order the largest size that will shrink snugly over the component to be covered. Special order sizes are available upon request.
Standard packaging	On spools; FSP (Flat Spool Product) mandatory for 5/8" only

HeatShrink Tubing (cont'd)

**PD Caps:**  
Semi-rigid, Encapsulant-Lined, Polyolefin Heatshrinkable Wire End Caps

**Product Facts**

- 3:1 shrink ratio
- Permanent or temporary way to terminate wires
- Rapid, simple installation
- Rugged protection against abrasion, vibration, and flexing
- PD caps provide a splash-resistant, moisture-resistant covering (but not intended for use where immersion in fluids is required)



**Applications**

PD Caps offer an improved, inexpensive way to encapsulate crimped electrical connections, including those on motor coils. Encapsulant melts and flows to fill surface irregularities of the substrate. These vibration-proof caps are used to insulate and terminate dead-end electrical cables, fixtures, connectors, and other electrical equipment.

**Installation**

Minimum shrink temperature: 125°C  
Minimum full recovery temperature: 135°C

**Operating Temperature Range**

-55°C to 110°C

**Specifications/Approvals**

Series		Raychem
PD Caps	E85381 600 V, 125°C	PD Caps SCD

## HeatShrink Tubing (cont'd)

### PD Caps

Size	Lengths (mm)		Inside Diameter (mm)		Recovered Diameter (mm)	Part Nos	Min Order Qty
	Nominal Overall as Supplied	Minimum Open Barrel as Supplied	Minimum Expanded as Supplied	Maximum Recovered After Heating	Wall Thickness* Total Wall After Heating		
PD Caps-1/8	22.0	12.7	3.2	0.58	1.22 ± 0.15	3-1194355-8	37,500
PD Caps-3/16	25.4	15.2	4.8	1.52	1.57 ± 0.20	2-1194355-0	20,000
PD Caps-1/4	28.4	15.2	6.4	2.03	1.98 ± 0.20	4-1194354-6	15,000
PD Caps-3/8	31.8	18.3	9.5	2.29	2.08 ± 0.25	6-1194354-1	7,500
PD Caps-1/2	38.1	21.6	12.7	2.29	2.54 ± 0.25	7-1194354-6	5,000

**Notes:**

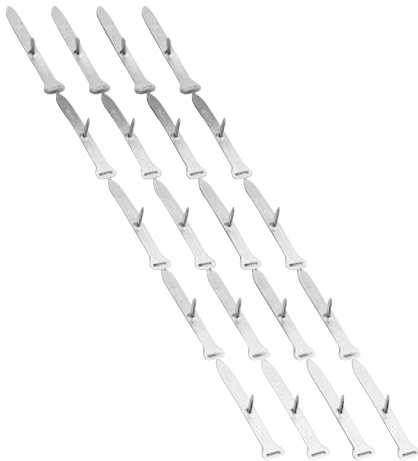
\*\*Wall thickness will be less if recovery is restricted during shrinkage.

### Additional Ordering Information

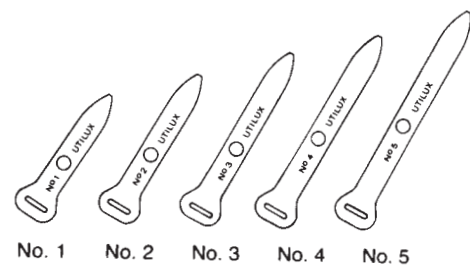
Colour	Standard = Black
Size selection	Always order the largest size that will shrink snugly over the component to be covered. Special order sizes are available upon request.
Standard packaging	Pieces.
Ordering description	Specify product name, size and color (for example, PD Caps 1/4-0).

## Miscellaneous Accessories

### Pin Clips



- Manufactured from soft brass, natural finish
- No sharp edges
- 12.6mm hardened nail fixed in the pin clip and recessed
- Strips of six for convenient application
- Pin clips are clearly branded and marked with the size number for identification
- H335D Tin Plated Brass with Tin Plated Brass pin resists corrosion



Product Code	Material	Size	Length (mm)
H335B#1	Brass with hardened nail	1	38
H335B#2	Brass with hardened nail	2	44
H335B#3	Brass with hardened nail	3	51
H335B#4	Brass with hardened nail	4	57
H335B#5	Brass with hardened nail	5	64

**Miscellaneous Accessories (cont'd)**
**Alligator Clips**


Product Code	Description
H141	Nickel Plated brass 5 amp clip
H2790	Nickel Plated brass 5 amp clip with barrel

**Notes:**

- High quality zinc chromate finish suitable
- Suitable for constant potential or series charging
- All clips feature pan head screw to ensure secure & reliable contact

**Test Clips**


Product Code	Description
H143	25 amp zinc plated steel test clip
H144	50 amp zinc plated steel test clip
H145	10 amp zinc plated steel test clip
H170	15 amp zinc plated steel test clip

**Alligator & Test Clip Insulators**


Insulator for	Packet of 6 Red & 6 Black	Packet of 12 Red	Packet of 12 Black
H170	H2082	-	-
H143	-	H2083RD	H2083BK
H144	H2084	H2084RD	H2084BK
H2790	H2796	H2796RD	H2796BK



**Products covered in this Section:**

- **UTILUX Hand Crimp Tools for Utilux Terminals**
- **AMP Hand Crimp Tools for AMP Crimp Terminals**
- **Automated Application Tools for Strip Form Terminals**

Our Application Tools use field proven, reliable, positive-action mechanisms and are built of high quality, durable materials that make them the preferred tools for field service and production applications.

And to ensure the best result, make sure you use the right AMP or Utilux tool for the job!

The selector charts and product specifications in this section cover most AMP & Utilux terminals, splies, lugs & crimp links, whether loose piece or continuous strip for; whether for service and repair, or high volume, professional applications (such as for OEMs).

For additional help in selecting the right tool, contact Tyco Electronics.

## Tool Selection

**Chart 1: Application (Crimp) Tools for Utilux Uninsulated & Pre-insulated Terminals**

Model No.	Non-ratchet	Ratchet	Pneumatic	Terminal types				Notes
				Uninsulated	Pre- & Fully Insulated	Closed End	Lugs	
17		x		x				For Utilux QC terminals
147A	x			x				For Utilux Micro-QC & Flag type terminals
61			x	x				For Utilux QC terminals
65				x				Modular die set; for all uninsulated brass terminals
76B	x				x	x		
102		x			x			
102M					x			For Utilux Micro-yellow, & normal red & blue terminals
102U	x			x				With std jaw is equiv to #61
112					x			For Utilux bootlace terminals only
63				x	x			Modular jaws for different terminals
21							x	6-50mm <sup>2</sup> cable
22							x	6-120mm <sup>2</sup> cable; hex crimp
00							x	0.5-100mm <sup>2</sup> cable
18							x	
77				x				
28A				x		x		Spark Plug terminal tool

**Application (Crimp) Tools for AMP Terminals**

Terminal Model	AWG	Applicator Part No. (for Strip Form Terminals)		Dies Sets (for Loose Piece terminals)		
		AMP-O-LECTRIC Model "G" 564435-5*	AMPOMATOR CLS IV+ 356500-1, -2	Platform Die Hand Tool 58078-3	"C Head" Hand Tool 69710-1	PRO-CRIMPER II Hand Tool 354940-1
110/125 Receptacles	26-22	567082-3	567082-1 <sup>1</sup>	58052-3	-	58628-2**
	22-18	567041-4	567041-1	90390-3	-	58628-2**
	16-14	567117-3	567117-1	-	-	-
187 Receptacles	22-18	466779-6	466779-3	90390-3	-	58628-2**
	16-14	466778-6	466778-3	90391-3	-	58628-2**
187 Tabs	22-18	466779-6	466779-3	90390-3	-	58628-2**
	22-18	466779-6	466779-3	90390-3	-	58628-2**
250 Receptacles	16-14	466778-6	466778-3	90391-3	-	58628-2**
	12-10	567142-4	567142-1	-	224027-1 <sup>3</sup> 224027-2 <sup>2</sup>	58630-2***
250 Tabs	22-18	466779-6	466779-3	90390-1	-	58628-2**
	16-14	466778-6	466778-3	9039103	-	58628-2**
	12-10	567142-4	567142-1	-	224027-1 <sup>3</sup> 224027-2 <sup>2</sup>	58630-2***
187 Flag Receptacles	22-18	567083-1	567083-1	90390-3	-	-
	16-14	567085-1	567085-1	90391-3	-	-
	16-14	-	567460-1	-	-	-
205 & 250 Flag Recept.	22-18	466784-1	466784-1	90390-3	-	-
	16-14	466785-1	466785-1	90391-3	-	-
250 Flag	22-18	567228-1	567228-1	-	-	-
LID <sup>4</sup>	16-14	567494-1	567494-1	-	-	-
110/125 Plus Receptacles	22-18	567276-4	567276-1	-	-	-
187 & 250 Plus Recept. & Tabs	22-18	567111-3	567111-1	58079-3	-	-
	16-14	567112-3	567112-1	58080-3	-	-

**Notes:**
<sup>1</sup> 22AWG only

<sup>2</sup> 12AWG only

<sup>3</sup> 10AWG only

<sup>4</sup> Large insulation diameter wire

\*\* Tool with Die Set Assembly part no. 58628-1

\*\*\* Tool with Die Set Assembly part no. 58630-1



Cable Cutters



Product Code	Description
#110	Small single hand operated parrot beak style cutter, ideal for general applications. Precision blades make this tool ideal for cutting flexible copper cables. <b>Length</b> ..... 240mm <b>Weight</b> ..... 460g



Product Code	Description
#108	Gear driven large capacity ratchet cable cutter, with rapid blade advance. robust forged construction cuts up to 400mm <sup>2</sup> single core copper cable. Not suitable for steel. <b>Features</b> ..... Rubber handle grips; Single hand operation; Emergency release mechanism; Blade reversing lever <b>Length</b> ..... 260mm <b>Weight</b> ..... 1.1kg

Cable Strippers



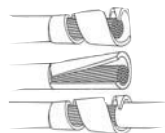
Product Code	Description
#89	This easy to use handtool has been developed for stripping insulation from electrical cable. Benefits include alloy steel jaws for stripping wire from 10-26 AWG. Crimps terminals neat and tight. Specially designed light pressure handles. Wire cutter incorporated. <b>Range</b> ..... 0.13-6mm <sup>2</sup> <b>Length</b> ..... 210mm <b>Weight</b> ..... 300g

**Cable Strippers (cont'd)**


Product Code	Description
#153	Self adjusting strip and cut tool, with sophisticated 'closed loop' cam mechanism which reduces hand effort and minimises operator fatigue. <b>Features</b> ..... Laminated stripping blade avoids damage to fine conductors; Direct driven cutter for powerful but controlled cutting; Fully automatic, with no adjustments required for different cable sizes; Repeatable strip lengths; No exposed cutting blades; Smooth profile handles <b>Range</b> ..... 0.08 to 6.0mm <sup>2</sup> (stripping) 6.0mm <sup>2</sup> (max) stranded, 4.0mm <sup>2</sup> (max) solid <b>Size</b> ..... 205mm(L) x 19mm(W) x 105mm(H) <b>Weight</b> ..... 200g



Product Code	Description
#151	Self adjusting wire stripper and cutter specially designed for flexible cables. <b>Features</b> ..... Compact design, pocket sized; Unique design ensures no damage to conductors; Precise rotary action; Integral guillotine wire cutter; No exposed blades; Strips inner & outer insulation <b>Range</b> ..... Up to 9mm diam. cables (stripping) Flexible cables up to 1.5mm <sup>2</sup> (cutting) <b>Size</b> ..... 90mm(L) x 18mm(W) x 38mm(H) <b>Weight</b> ..... 35g


**Triple Action  
Spiral Cut**

Product Code	Description
#154	Rotary action power cable stripper for all insulation types (PVC, PE, rubber etc). Two sizes available, 29mm and 40mm. <b>Features</b> ..... Triple Action Strip; Easy to achieve 'window' strips; Unique blade profile for difficult insulation such as rubber; Replaceable blades <b>Range</b> ..... - 4.5mm - 19 to 40mm diameter <b>Length</b> ..... - 138mm, 153mm (max) <b>Weight</b> ..... - 100g

**Utilux Economy Hand Crimp Tools**


Product Code	Description
#76B	Non ratchet pliers for pre-insulated and uninsulated terminals. Includes wire cutting and stripping positions. <b>Range</b> ..... 0.5mm <sup>2</sup> to 4.0mm <sup>2</sup> <b>Crimp type</b> ..... Pre-insulated – Oval; Uninsulated – Indent <b>Length</b> ..... 203mm <b>Weight</b> ..... 250g

Utilux Economy Hand Crimp Tools (cont'd)



Product Code	Description
#61	Non ratchet pliers for open barrel, roll in crimp type terminals such as H1972. Features a built in wire stripper and cutter. <b>Range</b> ..... 0.75mm <sup>2</sup> to 2.1mm <sup>2</sup> <b>Crimp type</b> ..... Roll-in for open barrel terminals <b>Length</b> ..... 210mm <b>Weight</b> ..... 230g



Product Code	Description
#147A	Non ratchet pliers for micro and flag QC open barrel terminals. Features a built in wire stripper and cutter. <b>Crimp type</b> ..... Roll-in for open barrel terminals <b>Length</b> ..... 210mm <b>Weight</b> ..... 230g



Product Code	Description
#00	General purpose pliers for uninsulated copper lugs and links. Simple and robust. A must for every tradesman. <b>Range</b> ..... 0.5mm <sup>2</sup> to 10.0mm <sup>2</sup> <b>Crimp type</b> ..... Indent <b>Length</b> ..... 254mm <b>Weight</b> ..... 450g

Utilux Professional Hand Crimp Tools



Product Code	Description
#102	Ratchet type tool for pre-insulated and supergrip terminals. The ratchet ensures a complete crimp every time. A must have tool for every tradesman. <b>Range</b> ..... Red, Blue and Yellow pre-insulated (0.5 to 5.5mm <sup>2</sup> ) <b>Crimp type</b> ..... Oval on conductor/Diamond on insulation <b>Length</b> ..... 230mm <b>Weight</b> ..... 550g



Product Code	Description
#102M	Ratchet type tool for miniature yellow type pre-insulated terminals (eg. H4200) ..... <b>Range</b> ..... 0.2mm <sup>2</sup> to 0.5mm <sup>2</sup> <b>Crimp type</b> ..... Oval <b>Length</b> ..... 230mm <b>Weight</b> ..... 230g

**Utilux Professional Hand Crimp Tools (cont'd)**


Product Code	Description
#102U	Ratchet type tool for uninsulated terminals. The ratchet ensures a complete crimp every time. A must have tool for every tradesman. <b>Range</b> ..... 0.5mm <sup>2</sup> to 8.0mm <sup>2</sup> <b>Crimp type</b> ..... Indent <b>Length</b> ..... 230mm <b>Weight</b> ..... 550g



Product Code	Description
#112	Ratchet type tool for boot lace terminals. The ratchet ensures a complete crimp every time. A must have tool for every tradesman. <b>Range</b> ..... 0.5mm <sup>2</sup> to 10mm <sup>2</sup> <b>Crimp type</b> ..... U <b>Length</b> ..... 230mm <b>Weight</b> ..... 550g

JAW NO.	CABLE (mm <sup>2</sup> )
1	0.5 to 0.75
2	1.0
3	1.5
4	2.5
5	4 to 6
6	10



Product Code	Description
#11C	Ratchet type tool for RED (0.5mm <sup>2</sup> to 1.5mm <sup>2</sup> ) pre-insulated terminals only, with terminal locator. Ideal for OEM and production applications. Red handles match terminal colour, and identify which terminals can be crimped. <b>Crimp type</b> ..... Oval on conductor/Diamond on insulation <b>Length</b> ..... 265mm <b>Weight</b> ..... 540g



Product Code	Description
#12C	Ratchet type tool for BLUE (1.5mm <sup>2</sup> to 2.5mm <sup>2</sup> ) pre-insulated terminals only, with terminal locator. Ideal for OEM and production applications. Blue handles match terminal colour, and identify which terminals can be crimped. <b>Crimp type</b> ..... Oval on conductor/Diamond on insulation <b>Length</b> ..... 265mm <b>Weight</b> ..... 540g



Product Code	Description
#13B	Ratchet type tool for YELLOW (2.5mm <sup>2</sup> to 6.0mm <sup>2</sup> ) pre-insulated terminals only, with terminal locator. Ideal for OEM and production applications. Yellow handles match terminal colour, and identifies which terminals can be crimped. <b>Crimp type</b> ..... Oval on conductor/Diamond on insulation <b>Length</b> ..... 330mm <b>Weight</b> ..... 970g

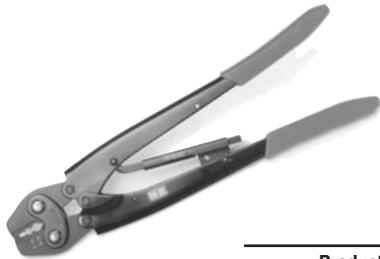
Utilux Professional Hand Crimp Tools



Product Code	Description
#16B	Ratchet type tool for uninsulated copper lugs (CG series). The long handles require less crimping effort. <b>range</b> ..... 0.5 to 10mm <sup>2</sup> <b>Crimp type</b> ..... Indent <b>Length</b> ..... 250mm <b>Weight</b> ..... 700g



Product Code	Description
#18	Ratchet type tool for uninsulated copper lugs (CG series). The long handles require less crimping effort. <b>Range</b> ..... 5 to 16mm <sup>2</sup> <b>Crimp type</b> ..... Indent <b>Length</b> ..... 330mm <b>Weight</b> ..... 700g



Product Code	Description
#28A	Ratchet type tool for Utilux closed end connectors. <b>Range</b> ..... 2.5 - 10mm <sup>2</sup> <b>Crimp type</b> ..... Oval <b>Length</b> ..... 320mm <b>Weight</b> ..... 600g



Product Code	Description
#17	Ratchet type tool for crimping open barrel type terminals <b>Range</b> ..... 0.7 to 2.1mm <sup>2</sup> <b>Crimp type</b> ..... Roll in <b>Length</b> ..... 280mm <b>Weight</b> ..... 600g



Product Code	Description
#20	Mechanical crimper for copper lugs and links. Dial adjustable crimp depth with cable size indicator. <b>Range</b> ..... 16 to 95mm <sup>2</sup> <b>Crimp type</b> ..... Indent, depth adjustable <b>Length</b> ..... 560mm <b>Weight</b> ..... 3.2kg

### Utilux Professional Hand Crimp Tools (cont'd)

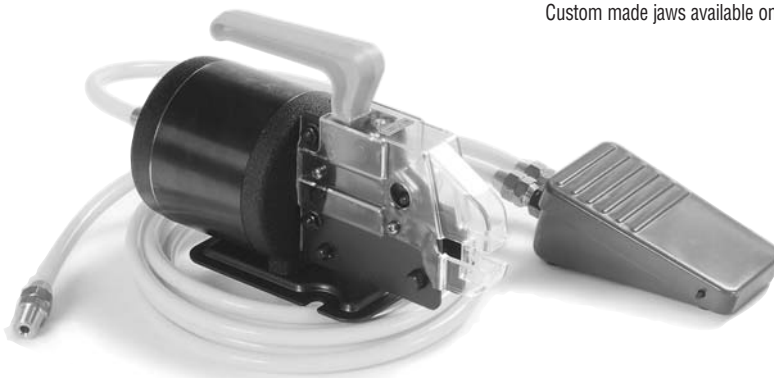


Product Code	Description
#21	Hand operated, mechanical lever tool for copper lugs and links. Features built in, selectable crimp die set for a range of lug and link sizes. <b>Range</b> ..... 6mm <sup>2</sup> to 50mm <sup>2</sup> <b>Crimp type</b> ..... Hexagonal <b>Length</b> ..... 410mm <b>Weight</b> ..... 1.4kg



Product Code	Description
#22	Hand operated, mechanical lever tool for copper lugs and links. Features built in, selectable crimp die set for a range of lug and link sizes. <b>Range</b> ..... 6mm <sup>2</sup> to 120mm <sup>2</sup> <b>Crimp type</b> ..... Hexagonal <b>Length</b> ..... 670mm <b>Weight</b> ..... 3.9kg

### Utilux Professional Pneumatic Crimp Tool



Product Code	Description
#63	Bench mounted air operated crimp tool with interchangeable crimp jaws for a range of applications. Includes foot operated controller and pneumatic hoses. Five interchangeable crimp jaws. <b>Range</b> ..... Up to 6mm <sup>2</sup> terminals <b>Crimp type</b> ..... Depends on jaws selected <b>input</b> ..... 490kpa air <b>Output</b> ..... 1.3 tons <b>Weight</b> ..... 2kg
Interchangeable Jaws for #63 bench mounted crimper	#4bjaws/1 ..... For RED pre-insulated terminals #4ujaws/1 ..... For BLUE pre-insulated terminals #5ujaws/1 ..... For Yellow pre-insulated terminals #1jaws/1 ..... For uninsulated lugs and links 1.5 to 6.0mm <sup>2</sup> #7jaws/1 ..... For closed end connectors 0.5 to 6.0mm <sup>2</sup> Custom made jaws available on request.

### AMP Economy Hand Crimp Tools

#### SUPER CHAMP Economy Non-ratchet Style Hand Tools

Overview :

- Lightweight — easy to operate
- Ideal for field repairs or prototypes
- Small size — useful in confined work areas
- Contoured, cushioned handles
  - Plastic-dipped or slip-on plastic handles are not intended for protection against electrical shock.
- Packaged with complete instructions in a standard box or in a clear, plastic “clamshell” for display
- Apply a variety of popular AMP® product lines (See Crimping Tool/Kit Selection Guide below.)
- Produced under a Quality Management System certified to ISO 9001



A copy of the certificate is available upon request.



Service Hand Tools, well known as SUPER CHAMP tools, are economical tools that are useful in the shop, on a job site, in your vehicle or at home. Tool crimping, cutting and stripping locations are clearly marked and/or color coded.

Each tool is designed to apply certain terminals, splices, contacts or connectors. Many of the tools can perform a mixture of other common operations such as: cutting wires, stripping wires, cutting bolts or measuring stud sizes.

SUPER CHAMP hand tools are manufactured from high quality carbon tool steel, processed through heat treatments. They are more resistant to wear, bending and breakage than most comparable tools.

#### Crimping Tool/Kit Selection Guide

AMP Product	CE	Wire Range/ Cable Size	Maximum Insulation Dia.		Tool	Instruction Sheet
			in	mm		
Insulated PIDG Terminals and Splices, Insulated PLASTI-GRIP Terminals, Insulated Closed End Splices		22-16 AWG [0.3-1.3 mm <sup>2</sup> ]	.125	3.18	696126-1	408-8618
		16-14 AWG [1.3-2 mm <sup>2</sup> ]	.150	3.81		
		12-10 AWG [3-5 mm <sup>2</sup> ]	.230	5.84		
Insulated PIDG FASTON Receptacles		22-18 AWG [0.3-0.8 mm <sup>2</sup> ]	.100	2.54	696125-1	408-8617
		16-14 AWG [1.3-2 mm <sup>2</sup> ]	.170	4.32		
		12-10 AWG [3-5 mm <sup>2</sup> ]	.250	6.35		
Uninsulated SOLISTRAND Terminals and Splices		22-10 AWG [0.3-5 mm <sup>2</sup> ]	N/A	—	696202-1	408-8620
		22-18 AWG [0.3-0.8 mm <sup>2</sup> ]	.130	3.30		
Uninsulated FASTON Receptacles and Tabs		20-16 AWG [0.5-1.3 mm <sup>2</sup> ]	.170	4.32	696202-1	408-8620
		18-14 AWG [0.8-2 mm <sup>2</sup> ]	.180	4.6		
D-Sub. AMPLIMITE Connectors 20 DF Contacts		24-20 AWG [0.2-0.5 mm <sup>2</sup> ]	.060	1.52	696202-1	408-8619
Circular DIN Connectors	Contacts	28-22 AWG [0.09-0.3 mm <sup>2</sup> ]	.054	1.37		
		24-20 AWG [0.2-0.5 mm <sup>2</sup> ]	.080	2.03		
Circular Plastic Connectors (CPC)	Type III+ Contacts	18-14 AWG [0.8-2 mm <sup>2</sup> ]	.100	2.54	696202-1	408-8619
		24-18 AWG [0.2-0.8 mm <sup>2</sup> ]	.100	2.54		
MATE-N-LOK Connectors	Commercial, Universal and Universal II Contacts	20-14 AWG [0.5-2 mm <sup>2</sup> ]	.130	3.30	696202-1	408-8619
		26-24 AWG [0.14-0.2 mm <sup>2</sup> ]	.050	1.27		
Miniature Rectangular MR Connectors	Contacts	26-18 AWG [0.14-0.8 mm <sup>2</sup> ]	.115	2.92	696202-1	408-8619
		26-18 AWG [0.14-0.8 mm <sup>2</sup> ]	.115	2.92		

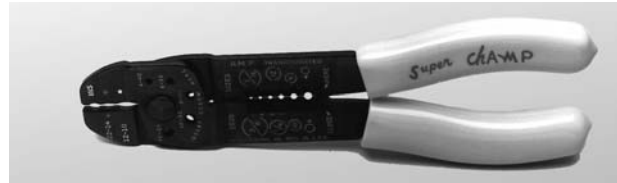
For additional product information, refer catalogue 1308585.

## AMP Economy Hand Crimp Tools (cont'd)

### SUPER CHAMP Hand Tool

**Part No. 47100-1** (Boxed)  
**Part No. 314958-1** (Display Package)  
 Instruction Sheet 408-1202  
**Overall Length** — 7.5 [190]

- Crimps insulated terminals and splices, 22-10 AWG [0.3-5 mm<sup>2</sup>]
- Cuts and strips wire
- Stud size and strip length gauges
- Cuts bolts and machine screws: 4-40, 6-32, 8-32, 10-32 and 10-24




### SUPER CHAMP IV Hand Tool

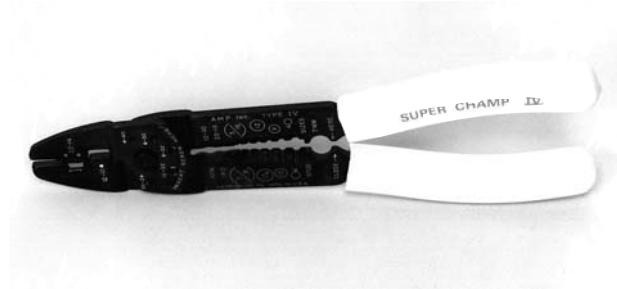
**Part No. 604252-1** (Boxed)  
**Part No. 605144-1** (Display Package)

Instruction Sheet 408-2914  
**Overall Length** — 220mm

- Crimps insulated and uninsulated terminals and splices, 22-10 AWG [0.3-5 mm<sup>2</sup>]
- Unique, confined trapezoidal crimp

- Cuts and strips wire
- Stud size and strip length gauges
- Cuts bolts and machine screws
- Crimps 7-mm ignition terminals

**Note: AMP PLASTI-GRIP funnel-entry and PIDG insulated terminals and splices (wire sizes 22-16, 16-14 and 12-10) are Listed by Underwriters Laboratories Inc. when crimped with AMP Type IV tooling.** 



### SUPER CHAMP FT Hand Tool

**Part No. 29564** (Boxed)  
**Part No. 314959-1** (Display Package)

Instruction Sheet 408-9896  
**Overall Length** — 220mm

- Crimps uninsulated, quick-disconnect, open-barrel FASTON

receptacles and tabs (.312, .250, .205, .187 and .110), 22-14 AWG [0.3-2 mm<sup>2</sup>]

- Cuts and strips wire, 22-10 AWG [0.3-5 mm<sup>2</sup>]
- Stud size gauge
- Cuts bolts and machine screws
- Crimps 7-mm ignition terminals



### Service Tool I

**Part No. 90287-1** (Boxed)  
**Part No. 601884-1** (Display Package)

Instruction Sheet 408-7599  
**Overall Length** — 220mm

- Crimps uninsulated, open-barrel contacts, 22-14 AWG [0.3-2

- mm<sup>2</sup>]
- Crimps FASTON terminals (F crimp), 22-18 AWG [0.3-0.8 mm<sup>2</sup>]
- Crimps insulated, closed-barrel PIDG and PLASTI-GRIP terminals and splices, 22-10 AWG [0.3-5 mm<sup>2</sup>]; also, closed end splices
- Cuts bolts and machine screws



### Service Tool II

**Part No. 90330-1** (Boxed)  
**Part No. 608230-1** (Display Package)

Instruction Sheet 408-7798  
**Overall Length** — 220mm

- Crimps uninsulated, open-barrel contacts, 22-14 AWG [0.3-2 mm<sup>2</sup>]

- Crimps FASTON Flag Tab-Lok receptacles
- Crimps FASTON terminals (F crimp), 22-18 AWG [0.3-0.8 mm<sup>2</sup>]
- Crimps insulated, closed-barrel PIDG and PLASTI-GRIP terminals and splices, 22-10 AWG [0.3-5 mm<sup>2</sup>]; also, closed end splices
- Cuts bolts and machine screws





### AMP Professional Hand Crimp Tools

#### Pro-Crimper II Ratchet Style Hand Tool with Interchangeable Dies

**Overview :**

- One tool with over 75 interchangeable SDE die sets can crimp many different types of connectors
- Ratchet control provides complete crimping cycle
- Emergency ratchet release
- Angled head provides a comfortable hand and wrist position
- Accommodates multiple terminal sizes in one die set
- Precision construction of durable high-carbon steel
- Extra strength pivot pins provide greater durability
- Produced under a Quality Management System certified to ISO 9001



A copy of the certificate is available upon request.



The PRO-CRIMPER II Hand Tool provides the versatility of general-purpose service tools along with the reliability and ease of use of many premium-grade tools.

For versatility, all 75 die sets are interchangeable, including those for open-barrel contacts and terminals. Additionally, many of these die sets have multiple cavities for crimping a variety of contact or terminal sizes.

For reliability, the tool is constructed of durable high-carbon steel with extra-strength pivot pins.

And, for user convenience, the PRO-CRIMPER II Hand Tool particularly excels.

Ratchet control is provided for complete crimp cycling; this helps eliminate partial crimps. Also, an emergency ratchet release allows the user to open the tool jaws at any time during the crimp cycle.

To reduce handle force, the

linkage was designed to match the forces required to crimp our largest insulated terminal. The result is dramatically less hand force than comparable tools. Also, the angled head and specially designed handles reduce hand stretch and provide comfortable operation.

Locators are mounted on pin-and-socket style tools. They help properly locate the contact in the die set, provide a wire stop, and help minimize contact rotation and bending during crimping.

The PRO-CRIMPER II Hand Tool is ideally suited for R&D prototyping, networking applications, and commercial, industrial, and institutional maintenance work.

P/N	IS 408-	P/N	IS 408-
58433-1	9140	58630-1	4453
58433-2	9159	58663-1	4476
58433-3	9252	90546-1	9883
58433-4	9671	90547-1	9884
58448-2	9357	90548-1	9885
58495-1	9819	90574-1	9886
58499-1	9830	90575-1	9887
58500-1	9877	90683-1	9935
58501-1	9876	90684-1	9934
58506-3	2835	90758-1	9938
58514-1	9973	90759-1	9962
58517-1	4064	90760-1	9963
58519-1	9917	90800-1	4007
58524-1	9993	90869-1	9964
58525-1	9994	90870-1	9965
58529-1	9999	90871-1	9966
58530-1	4005	90872-1	9967
58531-1	9657	217211-1	4113
58531-2	9657	217212-1	4145
58541-1	4051	224933-1	4160
58546-1	4047	318450-1	4218
58548-1	4031	318451-1	4217
58551-1	4090	318452-1	4219
58558-1	4091	354940-1	9930
58559-1	4116	492623-1	4457
58560-1	4093	492782-1	4471
58564-1	4075	503568-1	9860
58583-1	4165	503699-1	4066
58621-1	4273	503911-1	4159
58622-1	4291	679304-1	4070
58628-1	4452		

## AMP Professional Hand Crimp Tools (cont'd)

### Pro-Crimper II Selector Guide

Product Family	Product Code <sup>1</sup>	AMP® Product	RG/U Cable <sup>2</sup> or Wire Size	Termination Type/Style	Part Number	
					Tool Frame P/N 354940-1 with SDE Die Set	SDE Die Set Only
Coaxial Connectors	82074	50 Ohm BNC and TNC	RD 316, 180, 195, Belden 8218	"O"/Commercial	—	58539-1
			58, 62, 59	"O"/Commercial	58433-1	58435-1
			Belden 9248, 9114	Hex/Commercial	58433-2	58436-1
			174, 188, 316, 179, 161, 187	"O"/Commercial	—	58539-1
			62, 59	"O"/Commercial	318450-1	318450-2
				"O"/Commercial	—	58435-1
		50 Ohm BNC	Belden 9907, 89907, Comm/Scope 2104	"O"/Commercial	318452-1	318452-2
			174, 188, 316, 179, 161, 187	Hex/Commercial	—	58436-3
			62, 59, Belden 9104, 9112	"O"/Commercial & Military	—	58537-1
			Belden 8281, 9141	Hex/Commercial	—	58436-2
				"O"/Commercial & Military	—	58538-1
			180, 195, Belden 8218, 9248, 9114	"O"/Commercial	—	58539-1
		75 Ohm BNC and TNC	58	"O"/Military	—	220189-3
			62, 59	"O"/Commercial	—	58536-1
		75 Ohm BNC	6, Belden 8281	"O"/Commercial	—	58538-1
			179, 161, 187	"O"/Commercial	318451-1	318451-2
				Hex/Commercial	58531-2	58425-2
			62, 59	Hex/Commercial	58531-1	58425-1
			Double Braid 59, Belden 8281, 9141	Hex/Commercial	58531-3	58425-3
			Belden 9248, 9114	"O"/Commercial	—	58536-1
		50 and 75 Ohm BNC	Belden 8218	"O"/Commercial	—	58174-1
			6, Belden 8281	"O"/Commercial	—	58538-1
		50 Ohm N	58, 62, 59	Hex/Commercial	58433-2	58436-1
			8, 213, 11, 216, 9, 214	Hex/Commercial	58501-1	58485-1
		Miniature UHF	58	Dual Crimp	58506-3	220196-1
		50 Ohm SMB	174, 316, 188, 179, 161, 187, RD 316, 188 Double Braid	Hex/Commercial	58500-1	58489-1
			178, 196, 174, 316, 188, 179, 161, 187	Hex/Military	58499-1	58483-1
		50 and 75 Ohm Consumer BNC	58, 62, 59	Hex/Commercial	—	58046-1
			174, 316, 188, 179, 161, 187	"F" / "O"	58558-1	58558-2
		Series F CATV Plugs	174, 316, 188, 179, 161, 187	"F" / "O"	58559-1	58559-2
			58, 6, 7	Hex/Commercial	58621-1	58621-2
			.259, .324, .384 [6.6, 8.2, 9.8] Dia.	Hex/Commercial	—	—
59, 6, 7	Hex/Commercial		58622-1	58622-2		
.290, .343 [7.4, 8.7] Dia.	Hex/Commercial		—	—		
59, 6	Hex/Commercial		58663-1	58663-2		
Braid-Pic Braid Termination	.360 [9.1] Dia.	Hex/Commercial	—	—		
Terminals and Splices	82042	Insulated Terminals and Splices (PIDG and PLASTI-GRIP)	58, 62, 59	—	220195-1	
			22-16 AWG [0.3-1.3 mm <sup>2</sup> ]	—	—	
			16-14 AWG [1.3-2.0 mm <sup>2</sup> ] 12-10 AWG [3.0-5.0 mm <sup>2</sup> ]	58433-3 <sup>3</sup>	58423-1 <sup>3</sup>	
	65505	Uninsulated Terminals and Splices (SOLISTRAND)	22-10 AWG [0.3-5.0 mm <sup>2</sup> ]	—	58546-1	58545-1
			65472	Closed End Splices	ECV-ECN 18-16 AWG [0.8-1.3 mm <sup>2</sup> ]	—
	ECN 18-10 AWG [0.8-5.0 mm <sup>2</sup> ] ECV-ECN 18-10 AWG [0.8-5.0 mm <sup>2</sup> ]	—			—	—
Receptacles and Tabs	82004	FASTON 250 Series Recept.	.048-.225 [1.22-5.72] Ins. Dia.	—	58573-1	—
			18-14 AWG [0.8-2.0 mm <sup>2</sup> ] 14-10 AWG [2.0-5.0 mm <sup>2</sup> ]	—	58524-1	58524-2
		Ultra-Fast FASTON (Straight)	.110/.125 Recept. .187/.250 Recept., .250 Tabs	—	58525-1	58525-2
			.250 Recept.	—	58628-1	58628-2
	26-14 AWG [0.13-2.0 mm <sup>2</sup> ]	—	58630-1	58630-2		
	12-10 AWG [3.0-5.0 mm <sup>2</sup> ]	—	—	—		

<sup>1</sup> Request catalogue for detailed product information.

<sup>2</sup> Coaxial cable of similar size can be crimped. Request Catalog 82074 for a complete listing of possible cable sizes.

<sup>3</sup> Not for use with PIDG FASTON receptacles; crimp not approved by UL or CSA.

NB: For automatic tools that accept SDE (Standard Die Envelope) dies, refer SDE Electric Terminator, SDE 600 Electro-pneumatic Tool or 6-26 Pneumatic Tool System data sheets.

### Strip Form Terminal Applicators

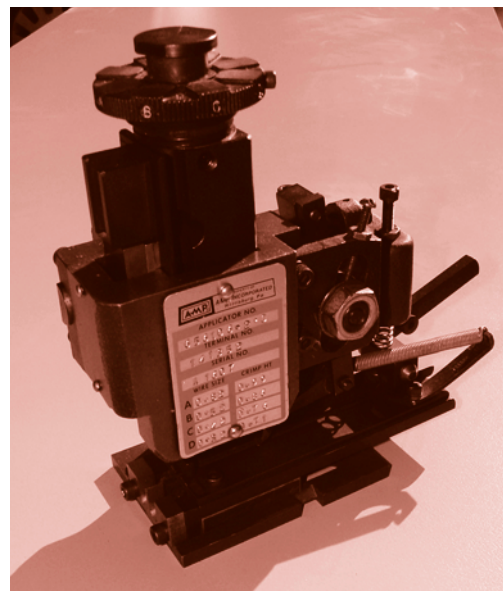
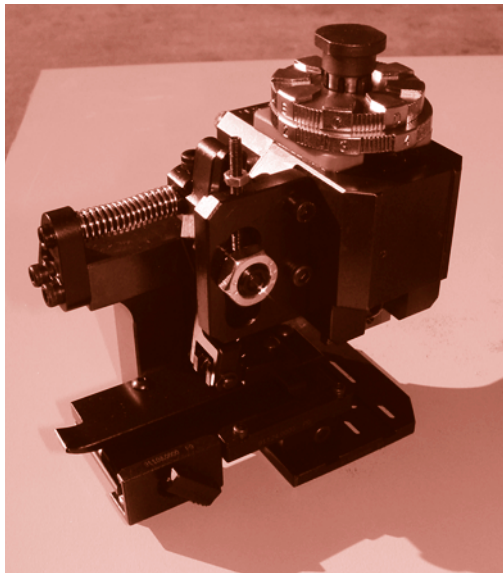
Tyco Electronics supplies side feed and end feed applicators for strip form terminals that fit a range of Universal european and American type bench presses.

Offering quick change capability, adjustment for crimp height on both

conductor and insulation is possible using two disc-type adjustment wheels.

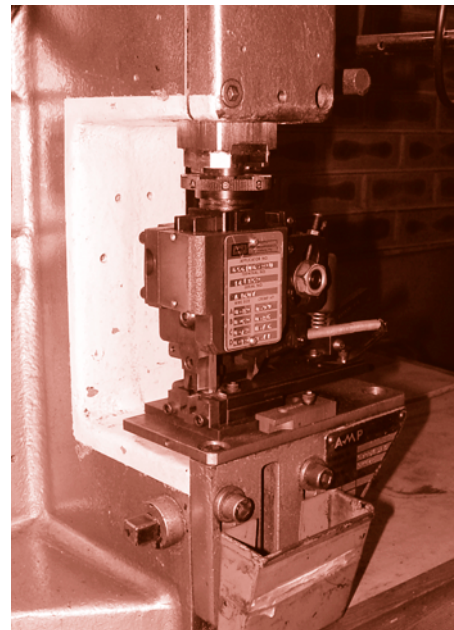
For customer terminals, custom-designed applicators can be supplied if required.

And our local service centre can calibrate and repair both applicators and presses.



**Series EFA End Feed Applicators**  
**Series SFA Side Feed Applicators**  
**Bench Presses**

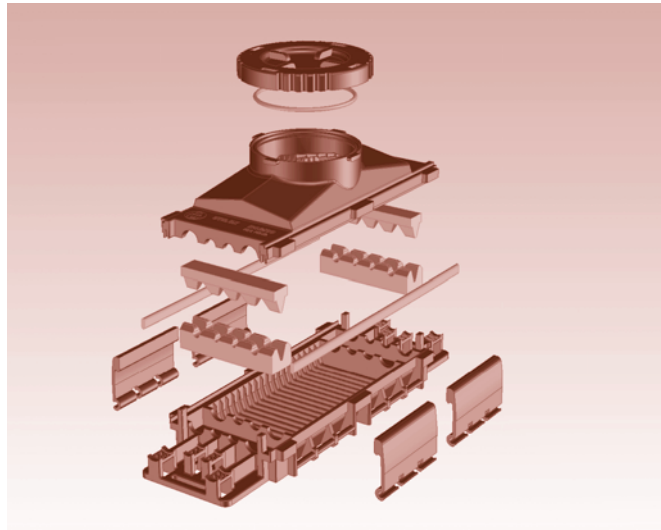
All supplied and serviced by Tyco Electronics.



## Design & Fabrication Services

### Overview :

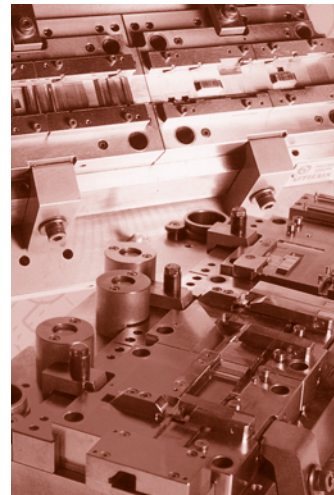
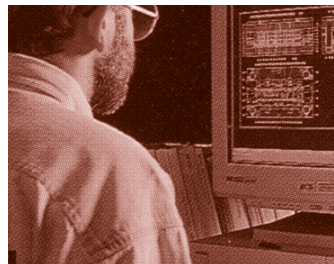
- Design services for:
  - Terminals, connectors & housings
  - Injection moulding dies
  - Progressive stamping dies for custom terminals
  - Formed metal & injection moulded enclosures
  - Custom application tooling
- Custom manufacture of:
  - Blanked, drawn & formed metal contacts
  - Appliance & Automotive cable assemblies, harnesses & wire looms
  - Specialised RF & optical fibre assemblies
  - Powdercoated sheetmetal enclosures & components
- High quality gold, tin & tin/lead plating services
- ISO 9001 accredited facilities



**Need a custom-made component, connector, sub-assembly or application tool?**

**We design, prototype and manufacture in-house.**

**And our Engineering & QA ensures superior quality.**



Not only are we the largest supplier of electrical and electronics connectors and electromechanical components, but we design and manufacture custom Commercial and Defence grade assemblies, cable harnesses and wire looms, as well as a range of application tooling and formed and powdercoated sheetmetal enclosures.

As well as being the largest manufacturer of terminals, lugs and links in the southern hemisphere, we're Australia's largest exporter of terminals and related

products to the Pacific, Asia, Europe and the UK.

With more than 8,000 sq metres of production area in Australia and New Zealand, we can also produce potted and overmoulded assemblies, battery cables and 240VAC power cords, ABS & audio leads, optical fibre cable assemblies and active-electronic sub-systems.

For more information, simply contact your Tyco Electronics Account Manager.

**Conversion Tables for Wire Sizes**
**British Standard Wire Gauge to Metric**

SWG	Metric (mm <sup>2</sup> )
33	0.0507
32	0.0591
31	0.0682
30	0.0779
29	0.0937
28	0.0111
27	0.0136
26	0.0164
25	0.0203
24	0.0245
23	0.0292
22	0.0397
21	0.0519
20	0.0657
19	0.81
18	1.17
17	1.59
16	2.08
15	2.63
14	3.24
13	4.29
12	5.48
10	8.30

**Imperial (inches) to Metric**

IMPERIAL (inches <sup>2</sup> )	Metric (mm <sup>2</sup> )
0.001	0.657
0.0015	0.981
0.002	1.28
0.003	1.97
0.0032	2.08
0.0045	2.98
0.007	4.60
0.01	6.81
0.0145	9.59
0.0225	14.5
0.03	18.6
0.04	26.0
0.06	39.4
0.075	49.9
0.1	66.3
0.12	76.8
0.15	97.2
0.2	129
0.25	162
0.3	199
0.4	267
0.5	328
0.6	399
0.75	489
0.85	557
1.0	683
1.25	807
1.5	1050

**American Wire Gauge to Metric**

AWG	METRIC (mm <sup>2</sup> )
30	0.0507
29	0.0645
28	0.0806
27	0.102
26	0.128
25	0.163
24	0.205
23	0.259
22	0.324
21	0.412
20	0.519
19	0.652
18	0.826
17	1.04
16	1.31
15	1.65
14	2.08
13	2.63
12	3.31
11	4.17
10	5.26
9	6.63
8	8.37
7	10.6
6	13.3
5	16.8
4	21.2
3	26.7
2	33.6
1	42.4
0	53.5

**Automotive Electrical Cables**

Nominal Conductor Area (mm <sup>2</sup> )	No. & Diam of Wires	Nominal Conductor Area (mm <sup>2</sup> )	No. & Diam of Wires	Nominal Conductor Area (mm <sup>2</sup> )	No. & Diam of Wires
0.56	7 / 0.32	0.79	19 / 0.23	0.64	9 / 0.3
0.88	11 / 0.32	1.17	19 / 0.28	1.0	14 / 0.3
1.3	16 / 0.32	1.9	19 / 0.36	2.0	28 / 0.3
2.1	26 / 0.32	3.0	19 / 0.45	3.1	44 / 0.3
3.3	41 / 0.32	4.8	19 / 0.57		
5.2	65 / 0.32				

### Part No. & Product Code Index

This index allows you to search for parts by Utilux Product Code (“BL” or “H” prefixed codes; which may have a suffix indicating material) as well as Tyco Electronics Part Numbers (a maximum seven digit number, typically with a single digit prefix and suffix). Note that only “base” Product Codes and base Part Numbers are used (ie, without prefixes or suffixes); refer pages referenced to determine full part number. For more information on alternate or additional parts, contact Tyco Electronics or your local supplier.

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