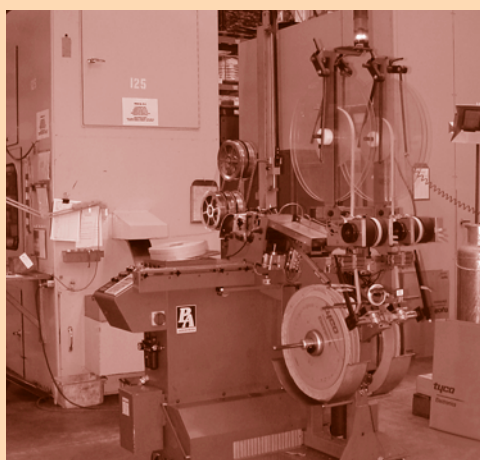
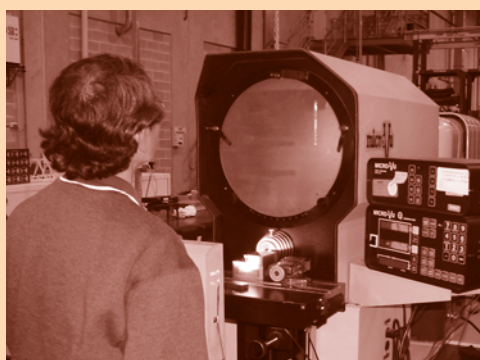




Tyco Electronics Australia/New Zealand Regional Head Office, Kingsgrove (Sydney)



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

“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
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

Via the Internet:

www.tycoelectronics.com.au/contact_us

Connect Protect

Introduction

Products

Section		Page
1	Uninsulated Terminals	1-26
	Quick Connect (QC) & Eze-On Terminals	2-10
	Insulators to suit QC & Eze-On Terminals	11-12
	Bootlace Terminals	13
	Ring/Eye Terminals	14-16
	Slotted/Fork Terminals	17-18
	Flag Terminals	18
	Pin Terminals	19
	Faston Terminals	20-22
	Posi Lok Terminals	23
	Specialty Terminals	24-25
	Crimp Splice Terminals	26
2	Insulated Terminals	27-38
	Pre-Insulated Terminals	
	- Quick Connect	28-30
	- Pin	30
	- Bullet	31
	- Lip Blade	31
	- Ring/Eye	32-33
	- Fork/Slotted	34-35
	Fully Insulated Terminals	
	- Ultra-Fast	36-37
	- Ultra-Fast Plus	38
	-Closed Cable End Connectors	38
3	Connector Systems	39-44
	Pin Terminal Connector System	41
	QC Terminal Connector System	42
	Universal Mate-N-Lok Connector System	43-44
4	Copper Lugs & Links	45-48
	Copper Crimp Lugs	46-47
	Copper Crimp Links	
	- Uninsulated	47
	- Pre-Insulated	48
5	Wire Splices & Solder Sleeves	49-54
	Heatshrink Crimp Splices	50-51
	Solder Sleeves	52-54
6	Terminal Blocks	55-62
	Fixed Screw- Type	56
	Terminal Strip	57
	QC Type	57-59
	Rail Mount Types	60-62

Products

Section		Page
7	Accessories	63-78
	Spirap Cable Wrap	64-65
	Cable Ties	66-71
	Heatshrink Tubing	72-77
	Miscellaneous	
	- Pin Clips	77
	- Alligator & Test Clips	78
8	Tooling	80-92
	Tool Selector Guide	81
	Cable Cutters	82
	Cable Strippers	82-83
	Utilux Economy Hand Crimp Tools	83-84
	Utilux Professional Hand Crimp Tools	85-87
	Utilux Pneumatic Crimp Tool	87
	AMP Economy Hand Crimp Tools	88-89
	AMP Professional Hand Crimp Tools	90-91
	Automated (Strip Form) Application Tools	92
9	Services	93
10	Technical Data	94
	Cable Size Conversion Tables (SWG & AWG to Metric)	
11	Part No. Index	95-100

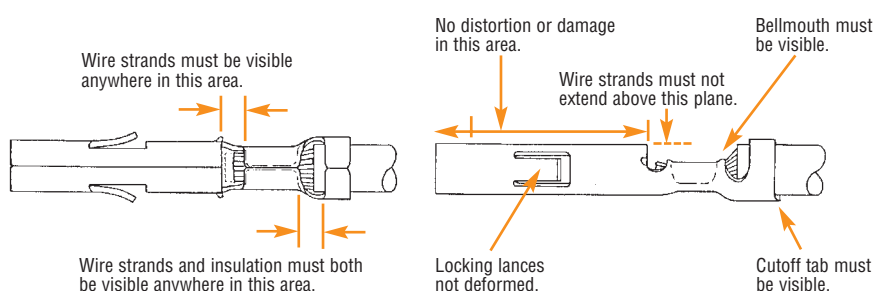
Good Crimping Practices

Open Barrel

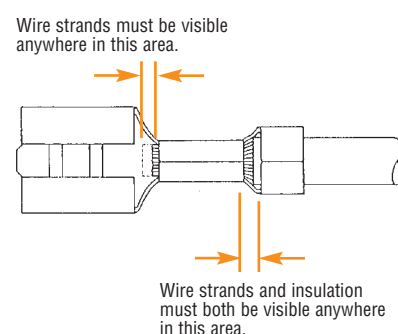
Terminations Acceptable



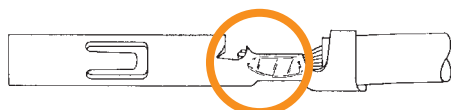
Pin Terminals



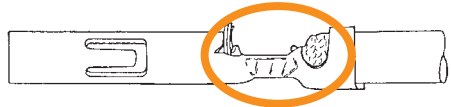
Blade, Ring, Fork (etc) Terminals



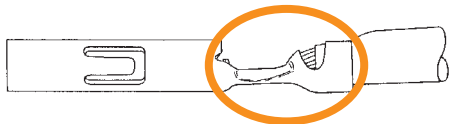
Terminations Unacceptable



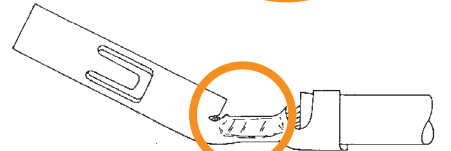
Bellmouth on wrong end of wire barrel – long cutoff tab.
CAUSE: Strip guide plate screw out of adjustment.



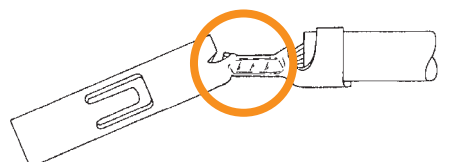
Wire located too far through wire barrel.
CAUSE: Strip length too long. Incorrect wire protrusion at applicator



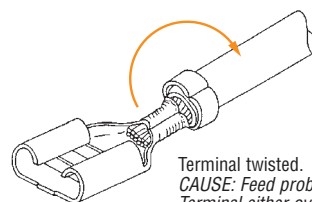
Large bellmouth – no cutoff tab.
CAUSE: Incorrectly adjusted strip guide plate screw. Incorrect wire and insulation disk settings. Wrong terminal in applicator



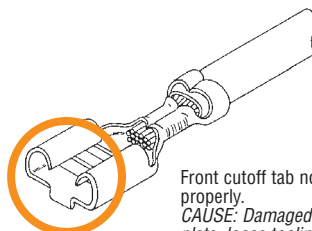
Terminal bent upward.
CAUSE: Incorrectly adjusted terminal hold-down.



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



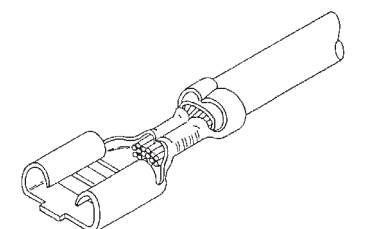
Terminal twisted.
CAUSE: Feed problem. Terminal either overfed or underfed.



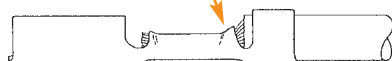
Front cutoff tab not sheared properly.
CAUSE: Damaged front shear plate, loose tooling, incorrect tooling, damaged shear blade, or damaged slug blade.

Closed Barrel

Terminations Acceptable



Bellmouth must be visible.



Cutoff tabs must be visible.

Wire strands must be visible anywhere in this area.



Wire insulation must be inside insulation barrel.



Bellmouth must be visible.

Terminations Unacceptable



No bellmouth. Incorrect terminal position.



Strip length too long.



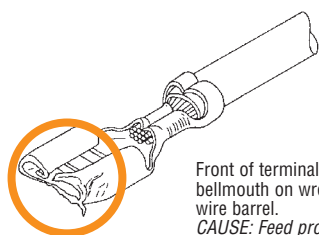
Strip length too short. (no brush)



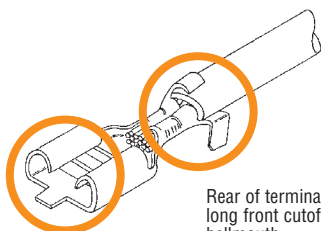
Strip length too long (too much brush)



Wire placement too far back.



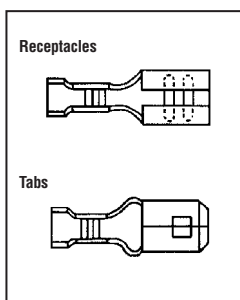
Front of terminal cut off; bellmouth on wrong end of wire barrel.
CAUSE: Feed problem.
Terminal not fed far enough.



Rear of terminal deformed, long front cutoff tab, large bellmouth.
CAUSE: Feed problem.
Terminal fed too far.

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 ^o
Tin Plated Brass	110 ^o
Nickel Plated Brass	175 ^o
Silver Plated Brass	150 ^o
Nickel Silver	200 ^o
Nickel Plated Steel	250 ^o
Stainless Steel	300 ^o

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

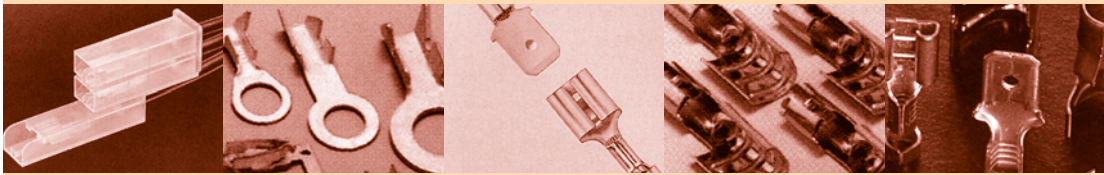
Terminal Size (mm)	Current Rating (amps)	Max. Initial Insertion Force, unplated (N)	Min. Tenth Withdrawal Force (N)
2.4	7.5	40	6
2.8	7.5	40	6
4.8	10.0	50	10
6.3	20.0	60	18
9.5	30.0	80	30

Mechanical Strength of Crimped Conductors (Newtons)

Tab Size (mm)	Cable Size (mm ²)						
	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
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
1

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.

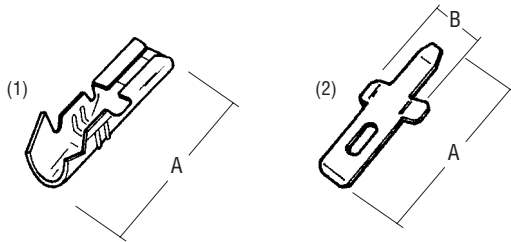
SECTION 1

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 ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
Receptacles - with straight insulation support								
H1129 ⁽¹⁾	Brass	0.3-0.7	1.5-2.4	0.4	12.6	-	1-1627009-0	Reel of 7,000
H1129ET ⁽¹⁾	Tin Plated Brass	0.3-0.7	1.5-2.4	0.4	12.6	-	1-1627009-1	Reel of 7,000

Notes:

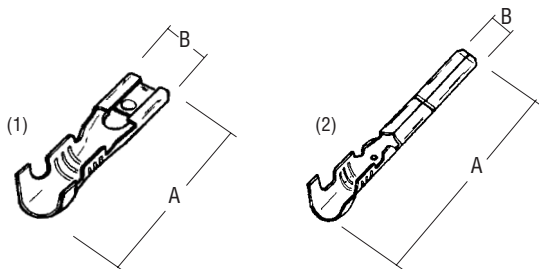
- accept 0.8mm thick tabs

Tabs - with straight insulation support

H2880 ⁽²⁾	Brass	-	-	0.8	11.7	4.3	1-1627136-2	Box of 5,000
----------------------	-------	---	---	-----	------	-----	-------------	--------------

Notes:

- Stud size = 2.4x1
- Angle = flat



2.3mm Micro-QC Automotive Terminals

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

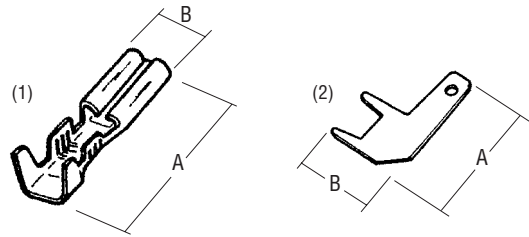
Tabs - with straight insulation support

H25103 ⁽²⁾	0.3	1.8	0.3	26.7	2.3	1-1659237-0	Reel of 5,000
H25104 ⁽²⁾	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 ²)	Thickness (mm)	Length A (mm)	Width B (mm)	Height C (mm)	Notes	Part Nos	Reel/Pack size
Receptacles - with straight insulation support; to suit 0.5mm tabs									
H1144B ⁽¹⁾	Nickel Silver	0.5-1.6	0.3	15.2	3.7	2.9	high temp	1-1659192-0	Reel of 6,000
H25025 ⁽¹⁾	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 ⁽¹⁾	Nickel Silver	0.2-0.6	0.3	15.2	3.7	2.9	high temp	1-1659192-1	Reel of 6,000
H25031 ⁽¹⁾	Tin Plated Brass	0.3-1.6	0.25	15.2	3.8	2.9	-	1-1627081-0	Reel of 6,000

Notes:

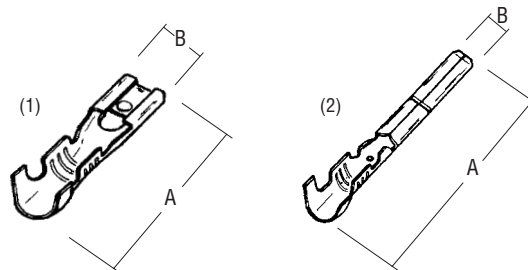
- Insulators to suit = continuous strip H2800 & H30400

Tabs - PCB mount

H25000 ⁽²⁾	Tin Plated Brass	-	0.5	13.5	8	-	PCB mount	1-1627079-1	Box Of 1,000
-----------------------	------------------	---	-----	------	---	---	-----------	-------------	--------------

Notes:

- use #147A tool



3.0mm QC Terminals

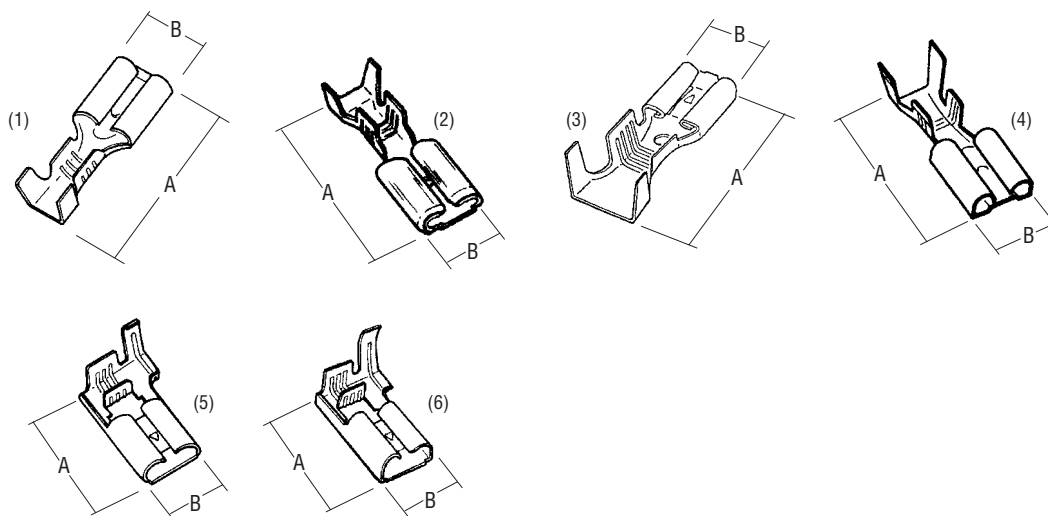
Product Code	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
Receptacles - with straight insulation support							
H25201 ⁽¹⁾	0.75-1.5	3.0	0.38	17.5	4.0	1-1659242-0	Reel of 3,500
H25203 ⁽¹⁾	0.2-0.6	2.2	0.38	17.5	4.0	1-1659244-0	Reel of 3,500

Tabs - with straight insulation support

H25200 ⁽²⁾	0.75-1.5	3.0	0.3	28.0	3.0	1-1659241-0	Reel of 8,000
H25202 ⁽²⁾	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 ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Insulators	Part Nos	Reel/Pack size
Receptacles - with straight insulation support; to suit 0.5mm tabs										
H1143 ⁽¹⁾	Brass	0.4-1.5	3.3	0.3	15.4	5.8	-	H2088	1-1627015-1	Reel of 4,000
H2590 ⁽²⁾	Brass	0.4-1.5	3.3	0.4	15.4	5.8	-		1-1627099-0	Reel of 8,000
H2590ET ⁽²⁾	Tin Plated Brass	0.4-1.5	3.3	0.4	15.4	5.8	-		1-1627099-3	Reel of 8,000
H2590B ⁽²⁾	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 ⁽³⁾	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 ⁽⁴⁾	Tin Plated Brass	0.4-1.5	3.3	0.3	15.4	5.8	-	H2088	1-1627055-0	Reel of 4,000
H3710BX01 ⁽⁴⁾	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 ⁽⁵⁾	Brass	0.4-1.0	3.3	0.4	12.6	5.8	-	H30801	1-1627016-0	Reel of 3,000
H1145ET ⁽⁵⁾	Tin Plated Brass	0.4-1.0	3.3	0.4	12.6	5.8	-		1-1627016-3	Reel of 3,000
H1145B ⁽⁵⁾	Nickel Silver	0.4-1.0	3.3	0.4	12.6	5.8	high temp		1-1627016-2	Reel of 3,000

Notes:

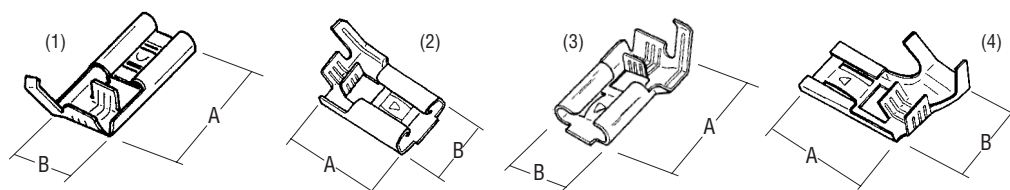
- use #147A tool

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

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

Notes:

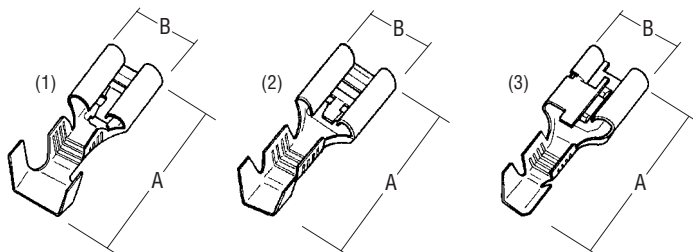
- LIF = Low Insertion Force
- use #147A tool
- H25411 with heightened rails

QC & Eze-On Terminals (cont'd)

6.3mm Flag Terminal Receptacles

Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Insulators	Part Nos	Reel/Pack size
Flag Terminals - with insulation support										
H1191 ⁽¹⁾	Brass	0.7-1.5	3.8	0.45	15.1	8.5	-	H2809	1-1627024-1	Reel of 2,500
H1191ET ⁽¹⁾	Tin Plated Brass	0.7-1.5	3.8	0.45	15.1	8.5	-	H2818	1-1627024-5	Reel of 2,500
H1191B ⁽¹⁾	Nickel Silver	0.7-2.1	3.8	0.45	15.1	8.5	-	H30008	1-1627024-2	Reel of 2,500
H2591 ⁽²⁾	Brass	0.5-1.0	3.2	0.4	14.2	8.6	-	H2818	1-1627100-2	Reel of 2,500
H2591ET ⁽²⁾	Tin Plated Brass	0.5-1.0	3.2	0.4	14.2	8.6	-	H30008	1-1627100-1	Reel of 2,500
H2592ET ⁽²⁾	Tin Plated Brass	2x0.5-2.5	4.3	0.45	15.8	12.9	-	H2095	1-1627101-4	Reel of 1,300
H2592B ⁽²⁾	Nickel Silver	2x0.5-2.5	4.3	0.45	15.8	12.9	-		1-1627101-2	Reel of 1,300
H2593 ⁽³⁾	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 ⁽³⁾	Tin Plated Brass	0.7-2.1	4.0	0.45	14.2	8.6	-	H2818	1-1627102-4	Reel of 2,500
H2593B ⁽³⁾	Nickel Silver	0.5-2.1	4.0	0.45	14.2	8.6	-	H30008	1-1627102-1	Reel of 2,500
H3575ET ⁽⁴⁾	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 ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Insulators	Part Nos	Reel/Pack size
Lanced type for Lanced QC Connector System									
H2840ET ⁽¹⁾	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 ⁽²⁾	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 ⁽²⁾	Tin Plated Brass	0.6-1.6	3.10	0.4	19.9	7.6		1-1627154-2	Reel of 8,000
H3702 ⁽²⁾	Brass	0.3-0.7	2.8	0.3	19.8	7.5		1-1627161-2	Reel of 8,000
H3702ET ⁽²⁾	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

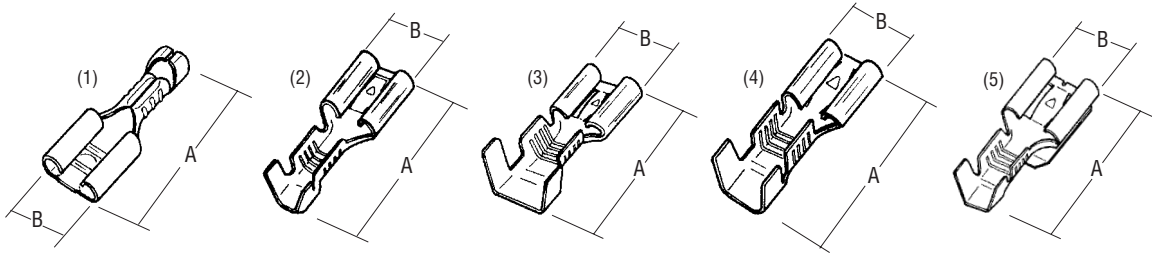
Pivot Lok type for Lanced QC Connector System

H25734 ⁽³⁾	Tin Plated Brass	0.5-1.0	2.6	0.4	19.8	7.5	H30004	1-1659250-0	Reel of 8,000
H25735 ⁽³⁾	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)

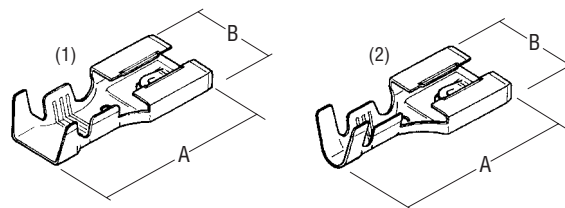


6.3mm QC Terminal Receptacles

Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Insulators	Part Nos	Reel/Pack size
Receptacles - with straight insulation support										
H953 ⁽¹⁾	Brass	0.7-2.1	3.55	0.45	19.8	7.5	pre-formed crimp		3-1661590-3	Pack of 150
H953B ⁽¹⁾	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
									1-1627194-2	Pack of 150
									1-1627194-1	Box of 1,000
H1971 ⁽²⁾	Brass	0.5-1.0	2.8	0.45	19.8	7.5	-	Pre-fit type:	1-1627056-0	Reel of 10,000
H1971ET ⁽²⁾	Tin Plated Brass	0.5-1.0	2.8	0.45	19.8	7.5	-	H1135	1-1627056-3	Reel of 10,000
H1972 ⁽²⁾	Brass	0.7-2.1	4.0	0.45	19.8	7.5	-	H1139	1-1627057-1	Pack of 150
									1-1627057-7	Box of 10,000
								Post-fit type:	1-1627057-4	Reel of 8,000
H1972ET ⁽²⁾	Tin Plated Brass	0.7-2.1	4.0	0.45	19.8	7.5		H2799	1-1627057-6	Reel of 8,000
H1972B ⁽²⁾	Nickel Silver	0.7-2.1	4.0	0.45	19.8	7.5	high temp	H2802	1-1627057-9	Pack of 150
								H2803	1-1627057-5	Reel of 8,000
H1973 ⁽³⁾	Brass	2x 0.5-2.0	2x 3.3	0.45	19.8	7.5	2 wire	H2804	1-1627058-1	Reel of 7,000
H1973ET ⁽³⁾	Tin Plated Brass	2x 0.5-2.0	2x 3.3	0.45	19.8	7.5	2 wire		1-1627058-3	Reel of 7,000
H1973B ⁽³⁾	Nickel Silver	2x 0.5-2.0	2x 3.3	0.45	19.8	7.5	2 wire, high temp		1-1627058-4	Reel of 7,000
H1974ET ⁽⁴⁾	Tin Plated Brass	2.5-5.3	4.9	0.45	19.8	7.5			1-1627059-1	Reel of 6,000
H2833 ⁽⁵⁾	Brass	1.0-1.5	3.9	0.40	19.6	7.5	piggyback		1-1627134-4	Reel of 1,800
H2833ET ⁽⁵⁾	Tin Plated Brass	1.0-1.5	3.9	0.40	19.6	7.5	piggyback		1-1627134-3	Reel of 1,800
H2833B ⁽⁵⁾	Nickel Silver	1.0-1.5	3.9	0.40	19.6	7.5	piggyback, high temp		1-1627134-2	Reel of 1,800

Notes:

- use #17 or #61 tools



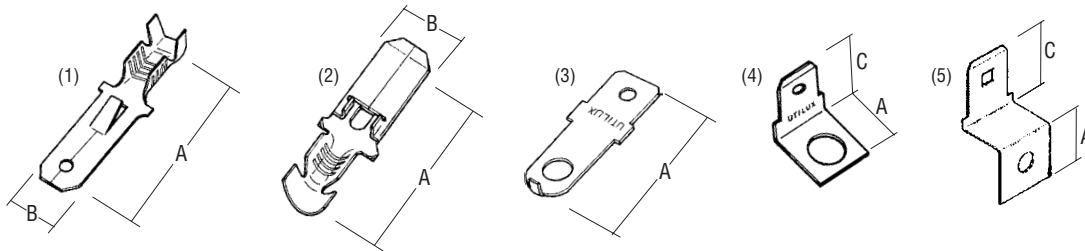
6.3mm Eze-On (Low Insertion Force) Terminals

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

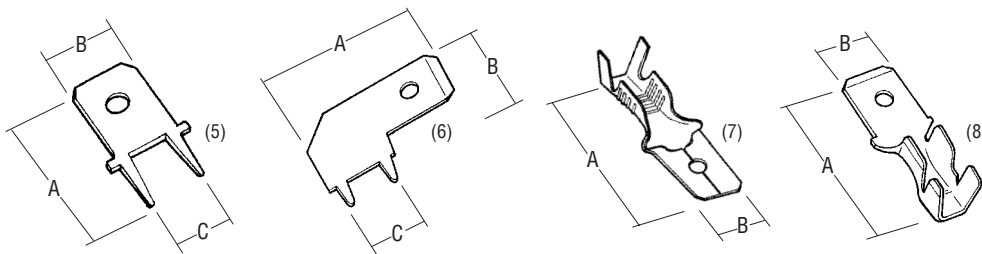
Notes:

- 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

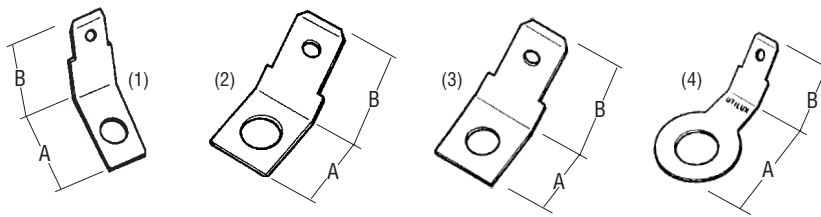
Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Stud/Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Height C (mm)	Notes	Part Nos	Reel/Pack size
Tabs - with straight insulation support; to suit Lanced & Lanceless QC Connector System (see also Sectn 3)											
H2832 ⁽¹⁾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



Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Height C (mm)	Notes	Part Nos	Reel/Pack size
Tabs - PCB type										
H25706 ⁽⁵⁾	Tin Plated Brass	-	-	0.8	14.0	8.0	5.0	-	1-1627334-0	Box of 1,000
H25707 ⁽⁶⁾	Tin Plated Brass	-	-	0.8	16.2	12.0	5.0	-	1-1659249-0	Box of 1,000
Tabs - Crimp type										
H1192 ⁽⁷⁾	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 ⁽⁷⁾	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 ⁽⁷⁾	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 ⁽⁸⁾	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:

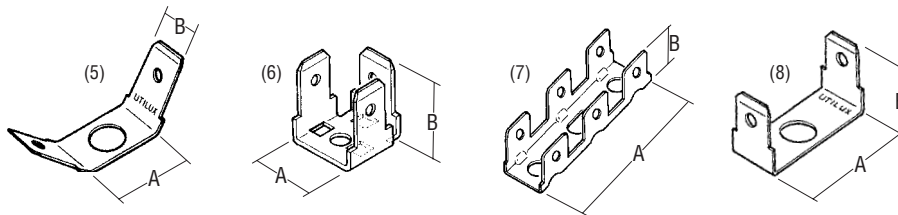
- use #17 or #61 tools

QC & Eze-On Terminals (cont'd)

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

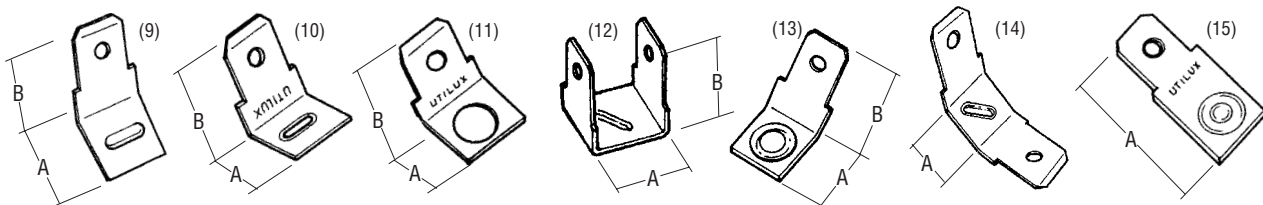
Product Code	Material & Finish	Stud/Hole Size (mm)	Thickness (mm)	Length A (mm)	Height B (mm)	Part Nos	Reel/Pack size
Tabs - with mounting hole; angled							
H1094M ⁽¹⁾	S/Steel	6.3	0.8	12.7	16.7	1-1627008-0	Box of 1,000
H1168 ⁽²⁾	Brass	4.9	0.8	8.7	11.1	1-1627021-0	Pack of 150
						1-1627021-2	Box of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

Notes:

- Angle = 45°

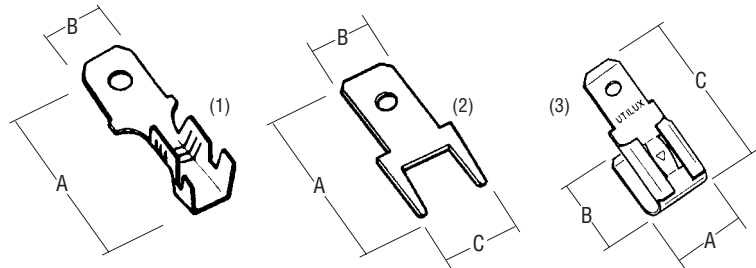


Product Code	Material & Finish	Stud/Hole Size (mm)	Thickness (mm)	Length A (mm)	Height B (mm)	Notes	Part Nos	Reel/Pack size
Tabs - Double type								
H1166ET ⁽⁵⁾	Tin Plated Brass	4.8	0.8	9.7	7.9	2x45°	1-1659193-0	Box of 5,000
H1906ET ⁽⁶⁾	Tin Plated Brass	3.3	0.8	9.0	11.9	3x90°	1-1659207-0	Box of 1,000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



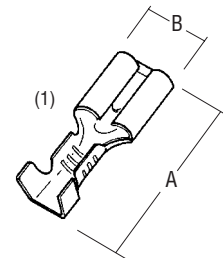
Product Code	Material & Finish	Stud/Hole Size (mm)	Thickness (mm)	Length A (mm)	Height B (mm)	Notes	Part Nos	Reel/Pack size
Tabs - Stainless Steel type								
H946 ⁽⁹⁾	S/Steel	-	0.8	8.0	11.5	45° Welding Rib	1-1627192-3	Box of 1,000
							1-1627192-4	Box of 5,000
H946C ⁽⁹⁾	S/Steel	-	0.8	8.0	11.5	30° Welding Rib	1-1627192-2	Box of 5,000
H1064 ⁽¹⁰⁾	S/Steel	-	0.8	7.9	11.5	90° Welding Rib	1-1627007-1	Box of 5,000
H1094B ⁽¹⁰⁾	S/Steel	4.7	0.8	29.6	7.9		1-1627008-1	Box of 1,000
H1169D ⁽¹¹⁾	S/Steel	4.9	0.8	11.0	-	90°	1-1627022-3	Box of 1,000
H1911 ⁽¹²⁾	S/Steel	-	0.8	7.35	-	2x90° Diagonal Welding Rib	1-1627048-2	Box of 5,000
							1-1627048-3	Box of 5,000
H1944 ⁽¹³⁾	S/Steel	-	0.8	8.0	-	45° Welding Dimple	1-1627051-1	Box of 5,000
H1988 ⁽¹⁴⁾	S/Steel	-	0.8	7.1	-	30° Welding Rib, 2 Tabs	1-1627064-0	Box of 5,000
H1992 ⁽¹⁵⁾	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 ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
Tabs - crimp type, 0.8mm									
H3754 ⁽¹⁾	Tin Plated Brass	0.4-1.0	2.6	0.8	17.1	4.8	-	1-1659398-0	Reel of 6,000
Notes:									
- use #17 tool									
Tabs - PCB type									
H25400 ⁽²⁾	Tin Plated Brass	height = 5.2mm	-	0.8	12.8	6.5	straight flat	1-1627086-1	Box of 1,000
Notes:									
- use #17 tool									
Tabs - Specials									
H3716B ⁽³⁾	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

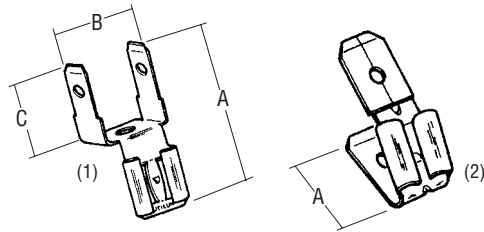


4.8mm Eze-On Terminals

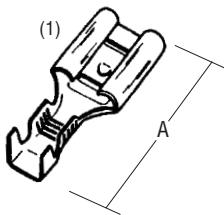
Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
Receptacles - with straight insulation support; to suit 0.5mm tabs								
H25449 ⁽¹⁾	Brass	0.5-1.0	3.3	0.35	15.0	5.8	1-1659246-0	Reel of 8,000
H25450 ⁽¹⁾	Tin Plated Brass	0.5-1.0	3.3	0.35	15.0	5.8	1-1627004-0	Reel of 8,000
Receptacles - with straight insulation support; to suit 0.8mm tabs								
H25453 ⁽¹⁾	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 ⁽¹⁾	Brass	3.35	0.8	23.2	9.0	12.0	-	1-1627191-1	Pack of 1000
H1909 ⁽²⁾	Brass	1.85	0.8	19.0	-	-	-	1-1627047-4	Pack of 1000
H1909ET ⁽²⁾	Tin Plated Brass	1.85	0.8	19.0	-	-	-	1-1627047-2	Packs of 1000
H1909B ⁽²⁾	Nickel Silver	1.85	0.8	19.0	-	-	high temp	1-1627047-1	Pack of 150


9.5mm QC Terminals

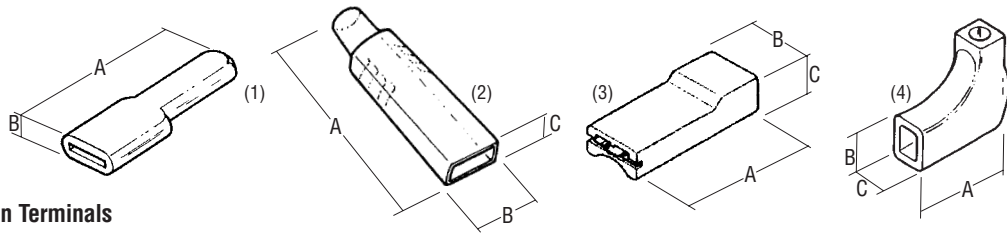
Product Code	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Notes	Part Nos	Reel/Pack size
Receptacles							
H2837 ⁽¹⁾	1.5-5.2	5.0	0.5	26.5	cont strip only	1-1659288-0	Reel of 3,000

Notes:

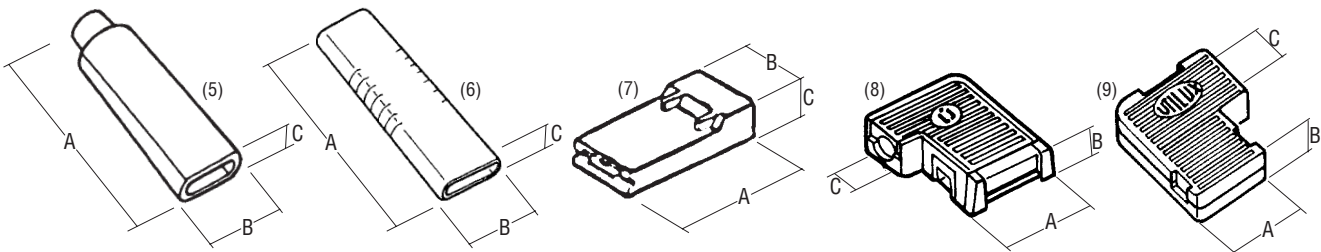
- terminals made of Tin Plated Brass
- use Power Press to apply

Uninsulated Terminals
1

Uninsulated Terminals

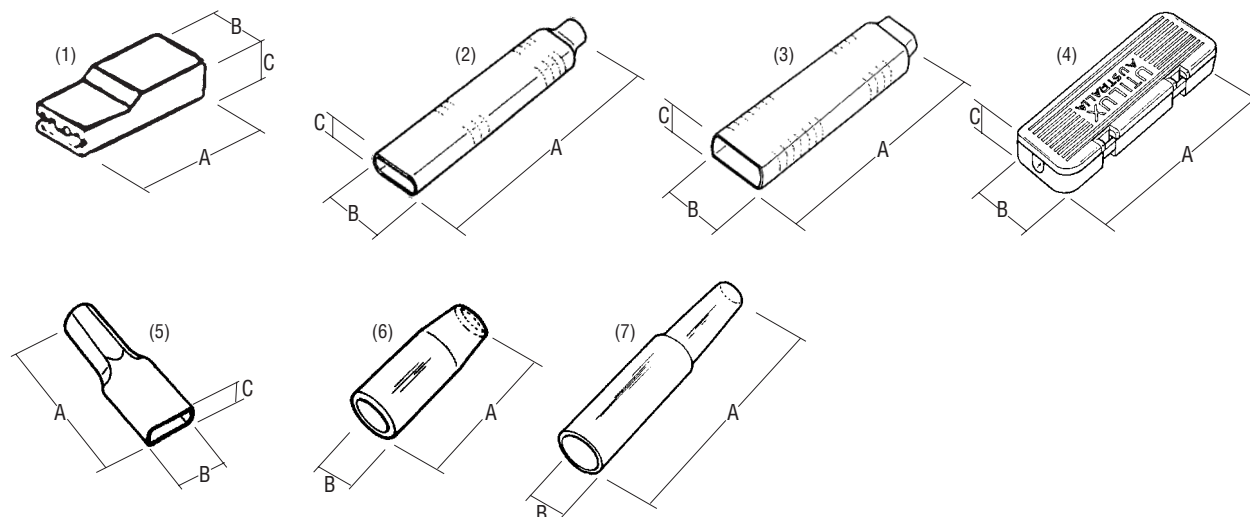
Insulators for QC & Eze-On Terminals

Insulators for QC & Eze-On Terminals

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



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

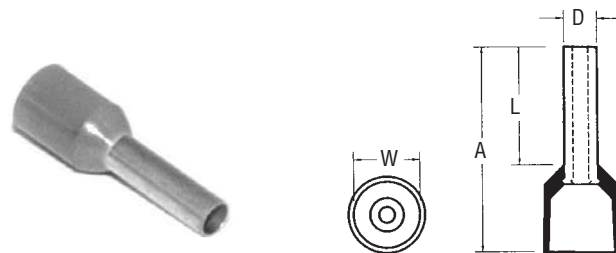
SECTION 1

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

Uninsulated Terminals
1

Uninsulated Terminals

Bootlace Terminals

Bootlace Terminals/Ferrules

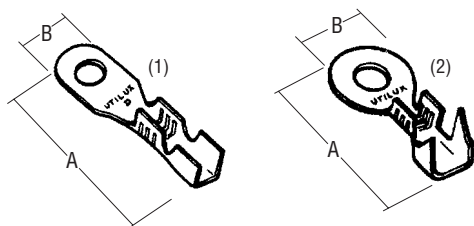
Product Code	Wire Size (mm ²)	Colour	Length A (mm)	Length F (mm)	Width D (mm)	Width W (mm)	Tool	Part Nos	Reel/Pack size
Bootlace Ferrules									
BLF05	0.5	White	12.0	6.0	1.3	2.6	#112, #125	1-1200102-2	Pack of 100
BLF07	0.75	Blue	12.3	6.0	1.5	2.8	#112, #125	2-1200114-0	Pack of 100
BLF1	1.0	Red	12.3	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

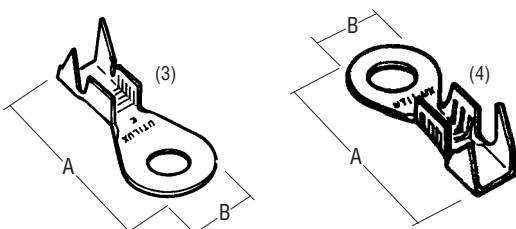
SECTION 1

Ring/Eye Terminals

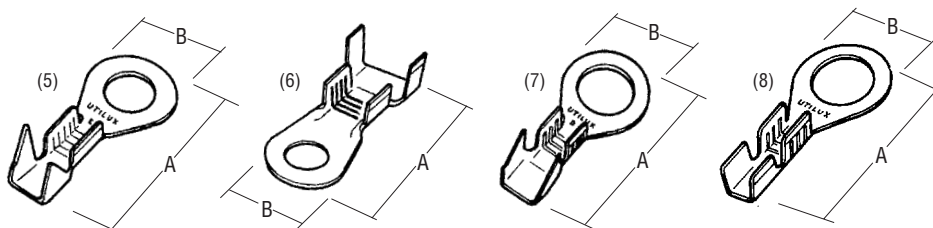


Ring/Eye Terminals with Insulation Support & Open Crimp Barrels

Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
To suit 3mm stud									
H3907 ⁽¹⁾	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 ⁽²⁾	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 ⁽²⁾	Tin Plated Brass	0.4-1.5	3.5	3.4	0.5	17.5	7.6	1-1627169-2	Reel of 4,000

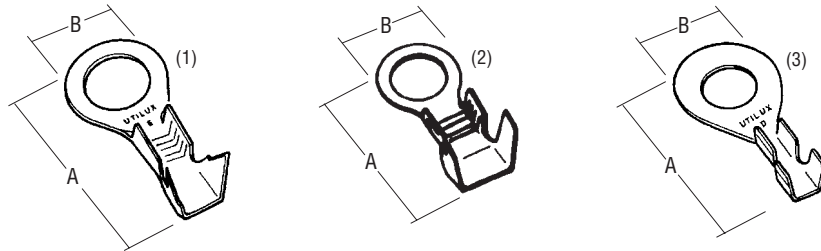


Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
To suit 4mm stud										
H1287 ⁽³⁾	Brass	0.5-2.5	3.9	4.3	0.55	21.4	9.8	Pretube vers is H3548	1-1627030-2	Reel of 2,500
H1287ET ⁽³⁾	Tin Plated Brass	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 ⁽⁴⁾	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 ⁽⁴⁾	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 ⁽⁴⁾	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



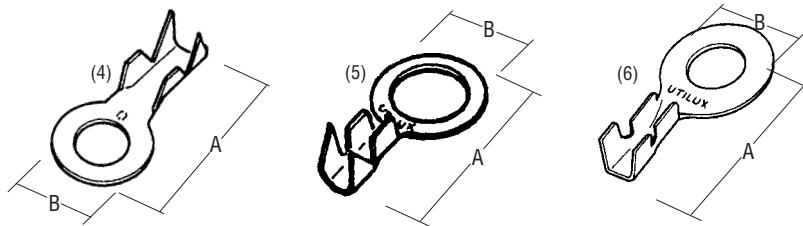
Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
To suit 5mm stud										
H430 ⁽⁵⁾	Brass	0.5-2.5	3.9	5.3	0.55	21.4	9.7	-	1-1627187-0	Reel of 2,500
									5-1661590-1	Box of 5,000
H430B ⁽⁵⁾	Nickel 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 ⁽⁵⁾	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 ⁽⁶⁾	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 ⁽⁷⁾	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 ⁽⁸⁾	Brass	0.4-1.0	3.6	5.0	0.5	17.5	7.6	-	1-1627171-1	Reel of 4,000
H3932ET ⁽⁸⁾	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

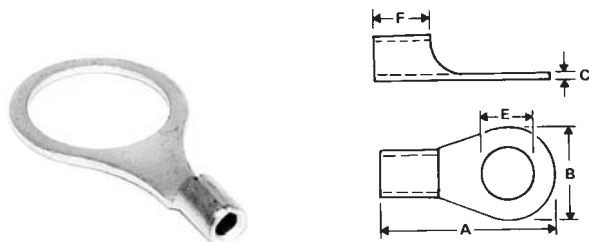
Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
To suit 6mm stud										
H1292 ⁽¹⁾	Brass	0.5-2.5	3.9	6.4	0.55	21.4	9.8	-	1-1627032-3	Reel of 2,500
H1292ET ⁽¹⁾	Tin Plated Brass	0.5-2.5	3.9	6.4	0.55	21.4	9.8	-	1-1627032-2	Reel of 2,500
H1292B ⁽¹⁾	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 ⁽²⁾	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 ⁽³⁾	Brass	0.4-1.5	3.2	6.6	0.7	24.6	12.7	-	1-1627040-1	Reel of 5,000
H1863ET ⁽³⁾	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 ²)	Max Insul Diam (mm)	Hole Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
To suit 8mm stud									
H414A ⁽⁴⁾	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 ⁽⁵⁾	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 ⁽⁶⁾	Brass	0.4-1.5	3.5	8.2	0.7	24.6	12.7	1-1627041-1	Reel of 5,000
H1864ET ⁽⁶⁾	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

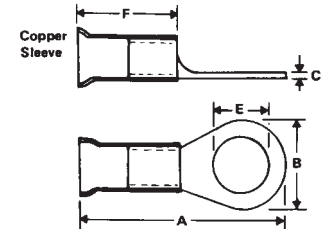
Ring/Eye Terminals (cont'd)

UTILUG Ring/Eye Terminals with Closed Crimp Barrels

Product Code	Wire Size (mm ²)	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	1.5-2.5	16-14	M10	0.9	25.5	13.6	10.5	4.8	1-1659351-0	Pack of 100
H3120			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	2.5-6.0	12-10	M3	1.0	15.7	7.2	3.7	6.0	1-1659344-0	Pack of 100
H3130			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	6.0-8.5	10-8	M6	1.2	23.8	12.0	6.4	8.5	1-1659365-0	Pack of 100
H3185A			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)



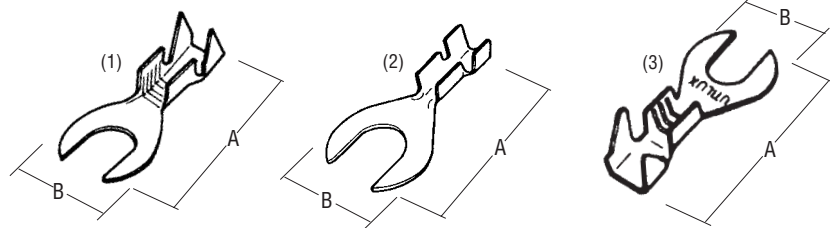
UTILUG High Temperature Ring/Eye Terminals with Closed Crimp Barrels

Product Code	Wire Size (mm ²)	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



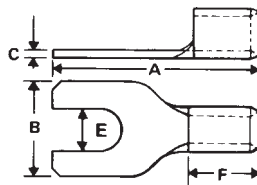
Fork/Slotted Terminals with Open Crimp Barrels

Product Code	Material.& Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Screw Size (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
H1289ET ⁽¹⁾	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 ⁽²⁾	Brass	0.4-1.5	3.8	6.5	0.7	22.2	12.7	1-1627040-2	Reel of 5,000
H3938 ⁽³⁾	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)



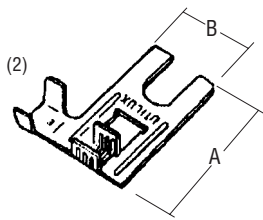
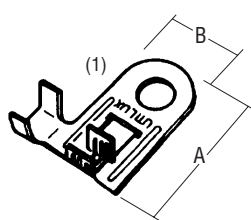
Fork/Slotted Terminals with Closed Crimp Barrels

Product Code	Wire Size (mm ²)	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	1.5-2.5	16-14	M3	16.0	6.0	0.8	3.7	4.8	1-1659526-1	Reel of 1,000
									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	2.5-6.0	12-10	M3	17.4	7.2	1.0	3.7	6.0	1200099-9	Pack of 100
H4331			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

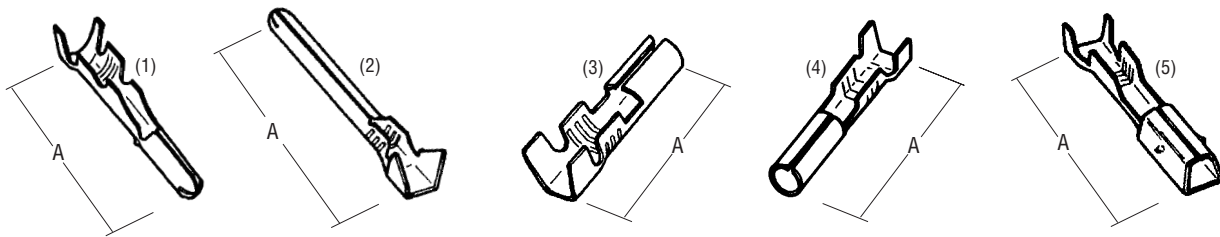


Product Code	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Hole/Slot Diam (mm)	Part Nos	Reel/Pack size
H3509ET ⁽¹⁾	0.7-1.2	3.1	0.5	14.2	7.5	4.4	1-1659376-0	Reel of 2,000
H3504ET ⁽²⁾	0.7-2.1	-	0.5	14.2	7.5	4.3	1-1627150-0	Reel of 2,000

Notes:

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

Pin Terminals

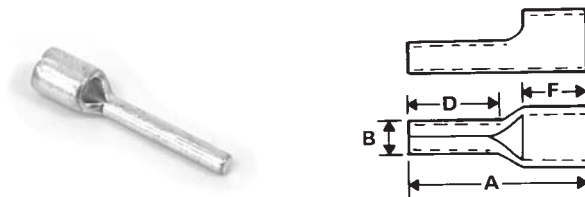


Pin Terminals with Open Crimp Barrels

Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam (mm)	Length A (mm)	Thickness (mm)	Pin OD (mm)	Pin Recept. Size	Notes	Part Nos	Reel/Pack size
To suit 2.36mm Diameter Receptacles										
H3624E ⁽¹⁾	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 ⁽²⁾	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 ⁽³⁾	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 ⁽⁴⁾	Brass	0.4-1.4	3.0	16.7	0.3	-	2.9		1-1659278-0	Reel of 4,000
H3625E ⁽⁵⁾	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 ²)	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).

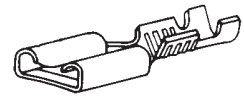
AMP 250 Series

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

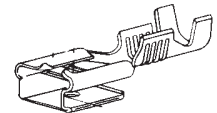


AMP 250 Series Piggyback

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



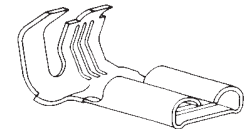
AMP 250 Series Flag

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)

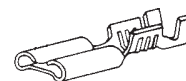
AMP 187 Series

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

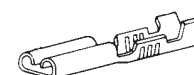
*Low Insertion Force



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

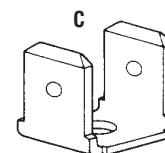
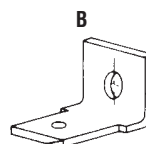
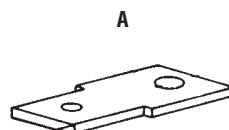


AMP 250 Series Stud Mount Tabs

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)

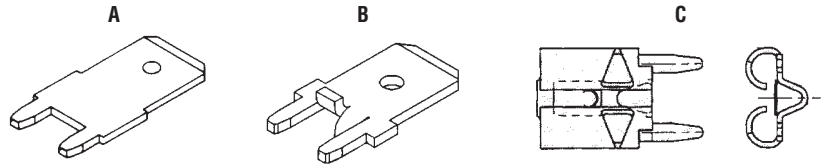
AMP 250 Series PCB Mount Tabs

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

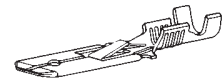
AMP 250 Series Wire Tabs

6.3mm (.250") Tabs

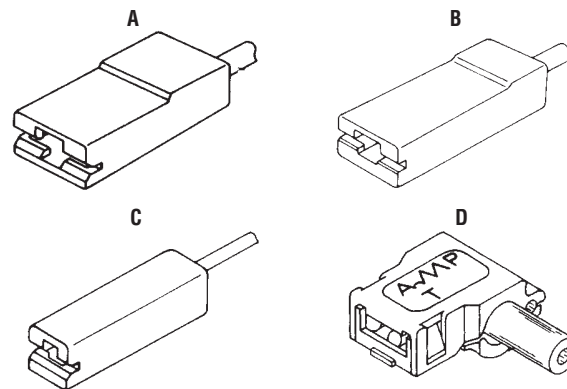
(For use with single or multiple circuit connectors)

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



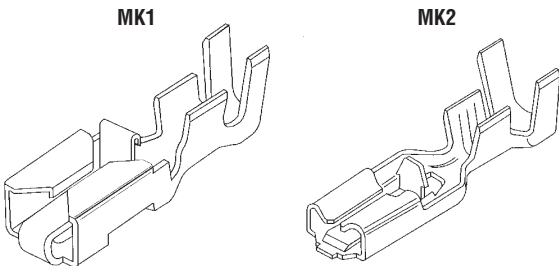
AMP 'FASTON' Insulators (prefit type)



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

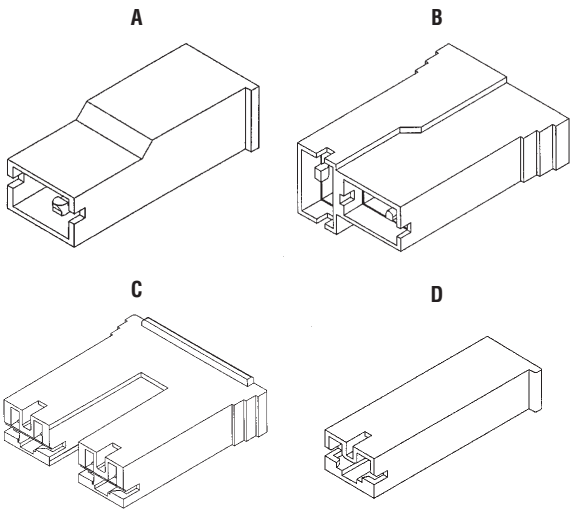
Posi Lock (Quick Connect) Terminals

AMP Posi Lock Receptacles



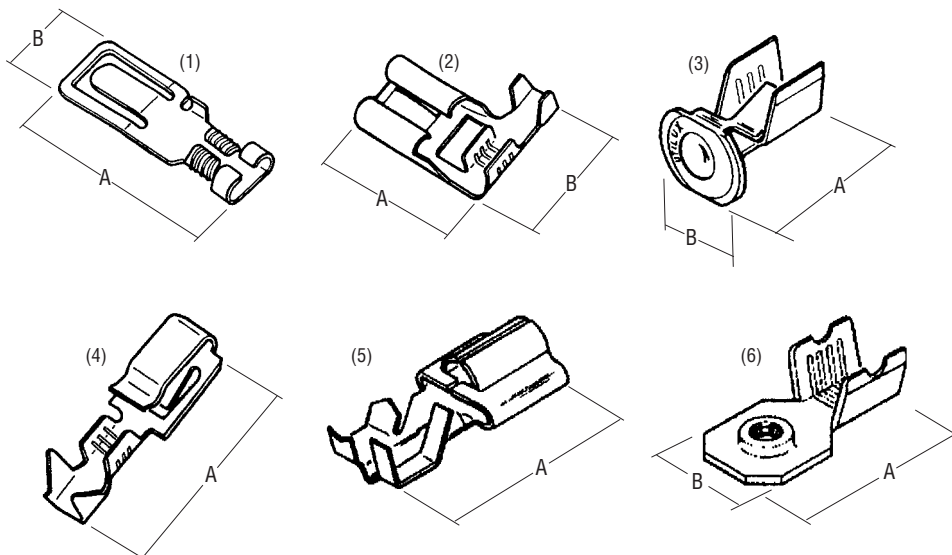
Wire Size		Material & Finish	Comments	Part Nos
AWG	Metric			
20-16	0.5-1.5	Tin Plated Brass	.250 MK1	341299-2
18-14	0.7-2.0	Tin Plated Brass	.250 MK1	154718-6
14-10	2.5-4.0	Tin Plated Brass	.250 MK1	341001-3
20-16	0.5-1.5	Tin Plated Brass	.250 MK1Flag	926820-4
20-16	0.5-1.5	Brass	.250 MK2	190679-1
20-16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

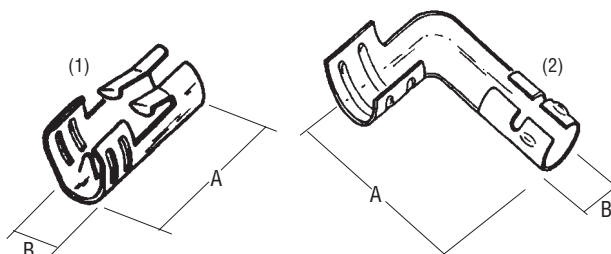
Specialty Terminals



Specialty Terminals

Product Code	Material & Finish	Wire Size (mm ²)	Max Insul Diam(mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
H2698 ⁽¹⁾	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 ⁽²⁾	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 ⁽³⁾	Brass	0.5-2.1		0.4	6.8	5.2	O.D.=5.2mm	1-1627110-1	Reel of 9,000
H2727B ⁽³⁾	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 ⁽⁴⁾	Brass	0.4-1.0	3.0	0.5	18.8	6.35	Flourescent tube contact	1-1627183-0	Reel of 4,000
H29600 ⁽⁵⁾	Tin Plated Ph Bronze	0.7-1.0	2.2	0.55	12.8	-	Fusite terminal	1-1627146-1	Reel of 2,500
H1239M ⁽⁶⁾	Steel	-		0.8	15.9	7.9	-	1-1627027-0	Reel of 8,000

Specialty Terminals (cont'd)

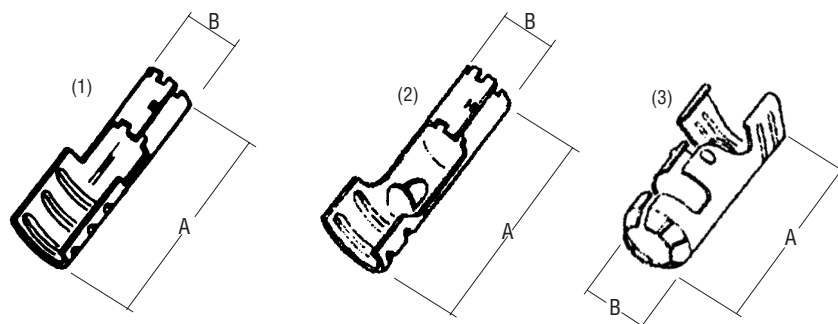


Distributor Terminals to suit 8mm HT Cable

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

Notes:

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



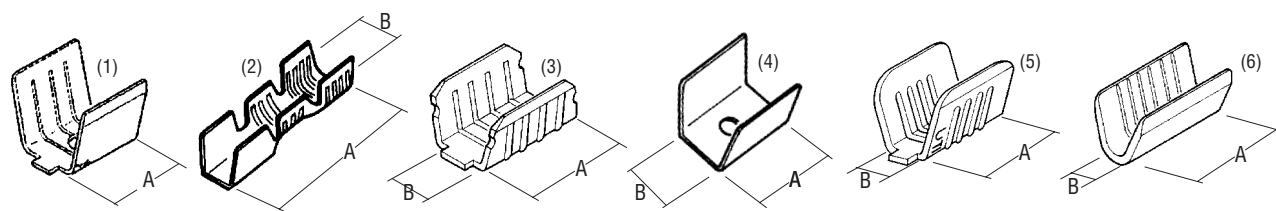
Spark Plug Terminals to suit 8mm HT Cable

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

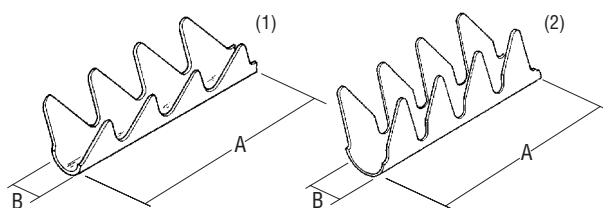
Notes:

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

Crimp Splice Terminals



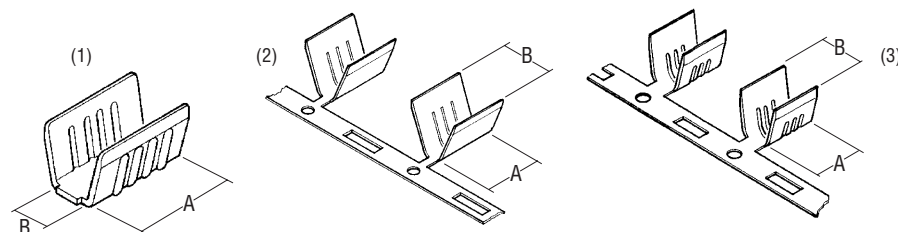
Product Code	Material & Finish	Wire Size (mm ²)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
H1581 ⁽¹⁾	Brass	-	0.45	6.35	6.35	-	1-1627037-0	Reel of 3,600
H1859 ⁽²⁾	Brass	2x 0.75	0.45	17.4	4.5	In-line joint	1-1627039-1	Reel of 12,000
H2557 ⁽³⁾	Steel	1.0-1.5	0.45	5.7	3.0	-	1-1659247-0	Reel of 16,000
H2708 ⁽⁴⁾	Brass	4x 3.1	0.55	9.5	6.6	-	1-1627107-0	Reel of 1,200
H2731 ⁽⁵⁾	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 ⁽⁶⁾	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 ⁽⁶⁾	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 ²)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
Shoelace (continuous strip) Crimp Splice Terminals								
H29100 ⁽¹⁾	Brass	0.5-1.0	0.25	Variable	2.6	Tunnel stud size 3.0mm	1-1627139-0	Reel of 30,000
H29101 ⁽¹⁾	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 ⁽²⁾	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 ⁽²⁾	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 ²)	Thickness (mm)	Length A (mm)	Width B (mm)	Part Nos	Reel/Pack size
H29109 ⁽¹⁾	Brass	1.0-2.5	0.40	5.0	3.8	1-1659300-0	Reel of 15,000
H29110 ⁽²⁾	Brass	1.7-5.0	0.40	6.0	5.3	1-1659301-0	Reel 7,000
H29111 ⁽²⁾	Brass	0.6-1.5	0.40	14.0	5.6	1-1659302-0	Reel of 3,000
H29115 ⁽³⁾	Tin Plated Brass	1.0-2.5	0.40	5.0	3.8	1-1659303-0	Reel of 15,000
H29116 ⁽³⁾	Tin Plated Brass	1.7-5.0	0.40	6.0	5.3	1-1659304-0	Reel of 7,000
H29117 ⁽³⁾	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

Insulated Terminals
2
Insulated Terminals

Products covered in this Section:

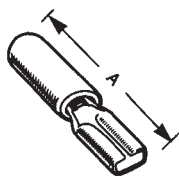
- **Pre-insulated:**
 - Quick Connect (QC) Terminals
 - Pin Terminals
 - Lip Blade Terminals
 - Ring/Eye Terminals
 - Fork/Slotted Terminals
 - Closed End Cable Connectors
- **Fully Insulated:**
 - Ultra-Fast Faston QC Terminals
 - Ultra-Fast Plus Faston QC Terminals

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.

SECTION 2

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

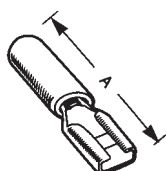
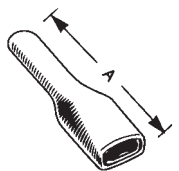
Product Code	Colour Code	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Part Nos	Reel/Pack size
Receptacles - with straight insulation support; to suit 0.5mm tabs							
H3564	RED	0.5-1.5	3.2	0.25	17.9	1-1659388-0	Pack of 100

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

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

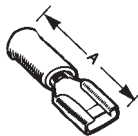
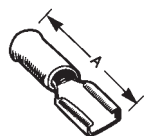


4.8mm QC Terminals

Product Code	Colour Code	Wire Size (mm ²)	Thickness (mm)	Length A (mm)	Part Nos	Reel/Pack size
Receptacles - to suit 0.5mm tabs						
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



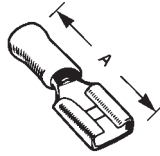
6.3mm QC Terminals

Product Code	Colour Code	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Part Nos	Reel/Pack size
Receptacles - with straight insulation support							
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

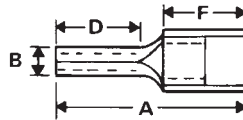
Pre-insulated QC Terminals (cont'd)



9.3mm QC Terminals

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

Pre-insulated Pin Terminals

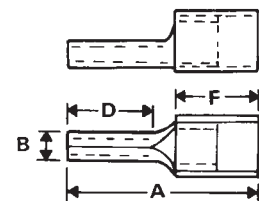


Pin Terminals

Product Code	Colour Code	Wire Size (mm ²)	Max Insul Diam (mm)	Length A (mm)	Width B (mm)	Dim D (mm)	Dim F (mm)	Tool	Part Nos	Reel/Pack size
Pin terminals										
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 ²)	Max Insul Diam (mm)	Length A (mm)	Width B (mm)	Dim D (mm)	Dim F (mm)	Tool	Part Nos	Reel/Pack size
Supergrip Pin Terminals										
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	Merchandise
									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	Merchandise
									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



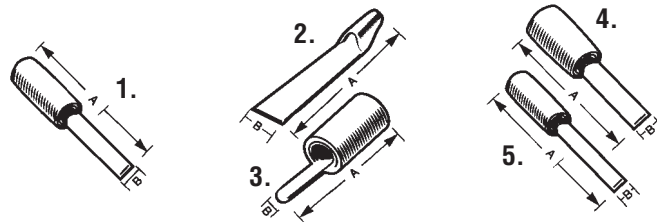
Bullet Terminals

Product Code	Colour Code	Wire Size (mm ²)	Max Insul Diam (mm)	Length A (mm)	Diam B (mm)	Notes	Part Nos	Reel/Pack size
Terminals (Male)								
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
Receptacles (Female)								
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



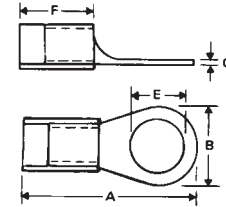
Lip Blade Terminals

Product Code	Colour Code	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Width B (mm)	Notes	Part Nos	Reel/Pack size
H2736 ⁽¹⁾	RED	0.5-1.5	3.5	0.7	24.8	2.9	-	1-1659272-0	Pack of 100
H2737 ⁽¹⁾	BLUE	1.5-2.5	3.7	0.7	26.8	3.0	-	1-1659273-0	Pack of 100
H2736A ⁽¹⁾	RED	0.5-1.5	3.5	0.8	27.7	3.0	-	1-1659272-1	Pack of 100
H2737A ⁽¹⁾	BLUE	1.5-2.5	4.1	0.8	27.7	3.0	-	1-1659273-1	Pack of 100
H2738A ⁽¹⁾	YELLOW	1.5-2.5	4.1	1.0	30.7	3.0	-	1-1659274-0	Pack of 50
H3916A ⁽³⁾	RED	0.25-1.5	3.5	0.7	17.2	3.0	Lipless Miniature Blade	1-1659405-0	Pack of 100
H3917A ⁽³⁾	BLUE	0.6-3.0	4.3	0.7	18.0	2.7	Lipless Miniature Blade	1-1659406-0	Pack of 100
H3918A ⁽³⁾	YELLOW	2.5-6.0	6.3	0.9	22.4	2.7	Lipless Miniature Blade	1-1659407-0	Pack of 100
H4107A ⁽⁴⁾	BLUE	0.5-1.5	3.5	0.8	28.5	2.0	Lipless Long Blade	1-1659453-1	Pack of 100
H4108A ⁽⁴⁾	RED	0.5-1.5	4.3	0.8	28.5	2.0	Lipless Long Blade	1-1659454-1	Pack of 100
H4107 ⁽⁴⁾	RED	0.5-1.5	3.5	0.8	25.8	4.6	-	1-1659453-1	Pack of 100
H4108 ⁽⁴⁾	BLUE	1.5-2.5	4.3	0.8	30.3	4.6	-	1-1659454-0	Pack of 100
H4109 ⁽⁴⁾	YELLOW	2.5-6.0	6.3	0.8	30.3	4.6	-	1-1659455-0	Pack of 100
H4207 ⁽⁵⁾	RED	0.5-1.5	3.5	0.8	26.4	4.6	Supergrip	1-1659488-0	Pack of 100
H4208 ⁽⁵⁾	BLUE	1.5-2.5	4.3	0.8	26.4	4.6	Supergrip	1-1659489-0	Pack of 100
H4209 ⁽⁵⁾	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 (mm²)	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	No.1 RED	0.5-1.5	22-16	3.5	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					M4	0.7	20.8	8.0	4.3	10.0	1-1659460-0	Pack of 100				
H4115					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	BLUE	1.5-2.5	16-14	4.3	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				
											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	YELLOW	2.5-6.0	12-10	6.1	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					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				

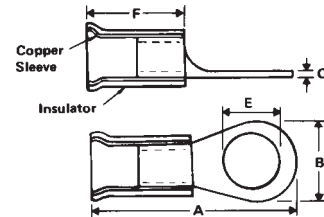
Notes:

- 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
2

Insulated Terminals

SECTION 2

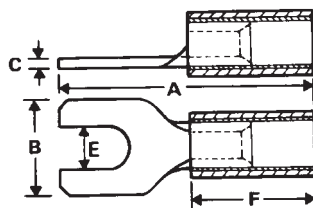
Pre-insulated Ring/Eye Terminals (cont'd)

Ring/Eye Terminals

Product Code	Colour Code	Wire Size (mm ²)	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
Supergrip Ring Terminals												
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	RED	0.5-1.5	22-16	3.5	M4	0.7	21.3	8.0	4.3	10.5	1-1659495-2	Pack of 20
											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	BLUE	1.5-2.5	4.3	4.3	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					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	YELLOW	2.5-6.0	6.1	6.1	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	YELLOW	2.5-6.0	6.1	6.1	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
	YELLOW	2.5-6.0	6.1	6.1							1-1659513-0	Box of 1,000
											1-1659513-1	Pack of 50
H4234					M6	1.0	30.0	12.0	6.4	13.5	1-1659515-2	Pack of 20
	YELLOW	2.5-6.0	6.1	6.1							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	YELLOW	2.5-6.0	6.1	6.1	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



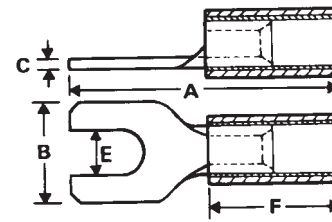
UTILUG Fork/Slotted Terminals

Product Code	Colour Code	Wire Size (mm ²)	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	RED	0.5-1.5	22-16	3.5	M3	0.7	21.0	6.4	3.7	10.0	1-1659532-0	Pack of 100
H4414					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 (mm²)	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
Supergrip Fork Terminals												
H4512	RED	0.5-1.5	22-16	3.5	M3	0.7	21.5	6.4	3.7	10.5	1-1659544-1	Pack of 20
											1-1659544-0	Pack of 100
H4514					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	YELLOW	2.5-6.0	12-10	6.1	M3	1.0	24.9	7.2	3.7	13.5	1-1659554-0	Pack of 50
H4531					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:

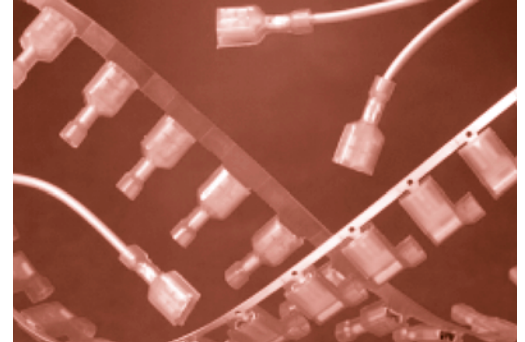
- all terminals made of Tin Plated Copper
- additional copper ferrule increases wire retaining force for superior wire retention
- square sides provide non-turn capability
- for RED terminals, use tools: #76B, #11C or #11B, #63-4B, #102, #120
- for BLUE terminals, use tools: #76B, #11C or #11B, #63-4U,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

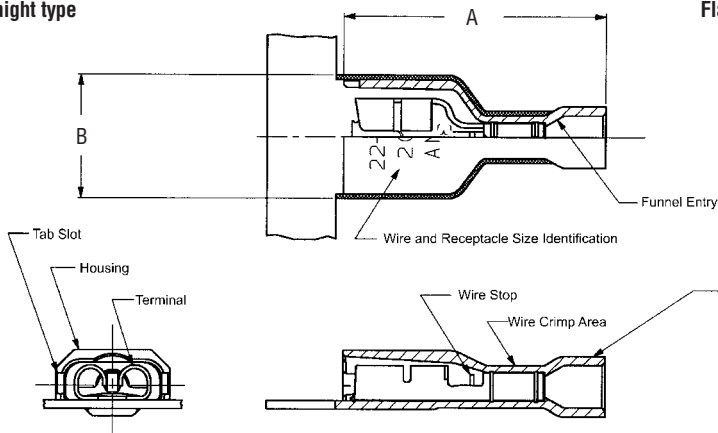
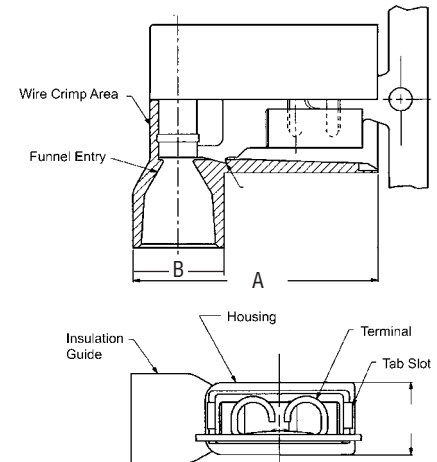
Note: MOQs apply (may be greater than Pack/Reel Sizes listed here). Confirm these prior to ordering (may change from time to time).



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
110 / 125 Series (2.8mm & 3.2mm) - Receptacles							
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 †	-
187 Series (4.8mm) - Receptacles							
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	-
187 Series (4.8mm) - Flag Receptacles							
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	-
205Series (5.2mm) - Flag Receptacles							
22-18	Tin Plated Brass/Nylon	Red	4.19 (0.165)	0.81 (0.032)	5.2 (0.205)	2-521164-2	-
Straight Receptacles							
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
250 Series (6.3mm) - Straight Receptacles							
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
		Blue	6.60 (0.260)	0.81 (0.032)	6.3 (0.250)	*3-520140-4	-
12-10	Tin Plated Brass/Nylon	Yellow	8.13 (0.320)	0.81 (0.032)	6.3 (0.250)	4-520447-2	4-520448-2
250 Series (6.3mm) - Flag Receptacles							
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	-
187 Series (4.8mm) - Tabs							
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
250 Series (6.3mm) - Tabs							
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

¹ Accepts 3.2mm (0.125") wide tabs

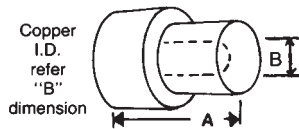
[~] Nylon housing is 125°C UL rated

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
110 / 125 Series (2.8mm & 3.2mm) - Straight Receptacles							
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	-
187 Series (4.8mm) - Straight Receptacles							
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
250 Series (6.3mm) - Straight Receptacles							
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
187 Series (4.8mm) - Flag Receptacles							
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	-
205 Series (5.2mm) - Flag Receptacles							
22-18	Tin Plated Brass/Nylon	Red	4.19 (0.165)	0.81 (0.032)	5.2 (0.205)	2-521164-2	-
250 Series (6.3mm) - Tabs							
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

Connector Systems

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

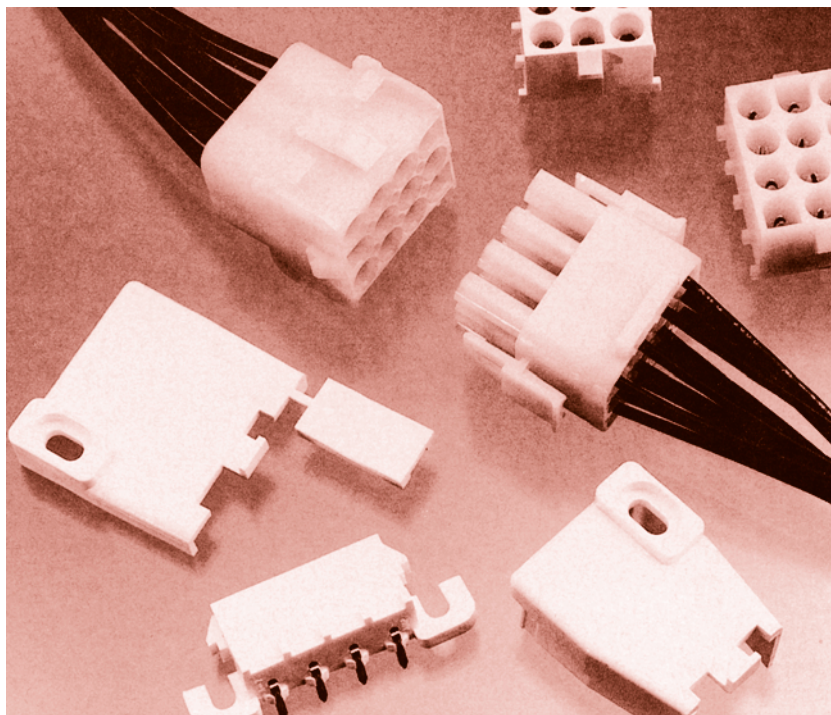
- Low cost pin connector system
- Nylon housings for durability and improved heat resistance
- Polarised
- Housings with locking mechanism to ensure positive, secure, mating
- Removable, crimp snap-in pin contacts

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

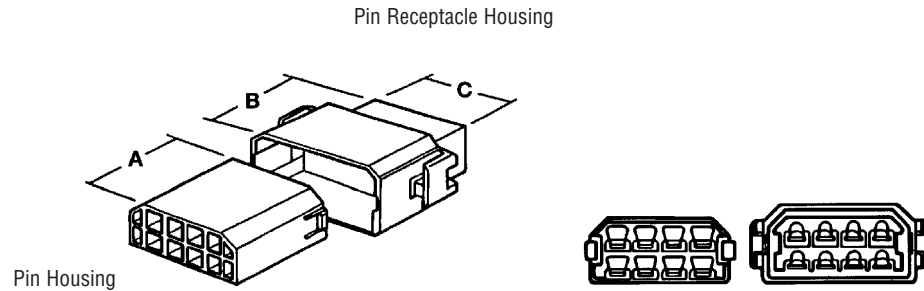


The three systems offered here are ideal for general industrial and automotive applications where reliable, low cost plug and socket connectivity of wiring looms is required.

For wire sizes up to 2.1mm² and voltages to 600VAC, these systems use standard crimp-type terminals, making them ideal for field termination/repair.

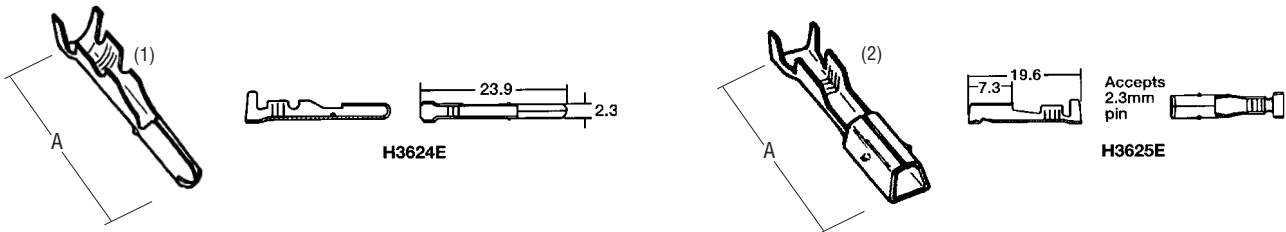
For more information about these and other plug and socket connector systems, contact Tyco Electronics.

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

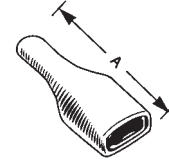
Pin Receptacles to suit 2.36mm Diameter Pins

H3625E ⁽²⁾	Brass	0.5-2.1	3.0	19.6	0.3	-	2.9	Lanceless	3-0279465-9	Reel of 4,000
-----------------------	-------	---------	-----	------	-----	---	-----	-----------	-------------	---------------

Notes:

- use #17 or #61 tool

Pre-insulated QC Terminals (cont'd)

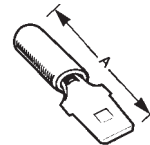


6.3mm QC Terminals (cont'd)

Product Code	Colour Code	Wire Size	Max Insul Diam (mm ²)	Thickness (mm)	Length A (mm)	Part Nos (mm)	Reel/Pack size
Receptacles - fully insulated to suit 0.8mm tabs							
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:

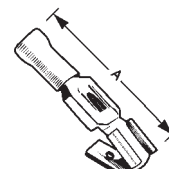
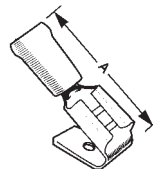
- all terminals made of Tin Plated Brass with PVC insulation
- fully insulated for maximum contact and dust protection



Product Code	Colour Code	Wire Size	Thickness (mm)	Length A (mm)	Part Nos (mm)	Reel/Pack size
Tabs - with straight insulation support						
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



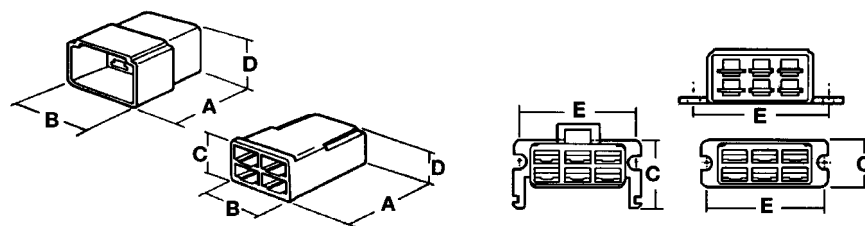
6.3mm QC Adapters

Product Code	Colour Code	Wire Size (mm ²)	Max Insul Diam (mm)	Thickness (mm)	Length A (mm)	Part Nos	Reel/Pack size
Piggyback type							
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

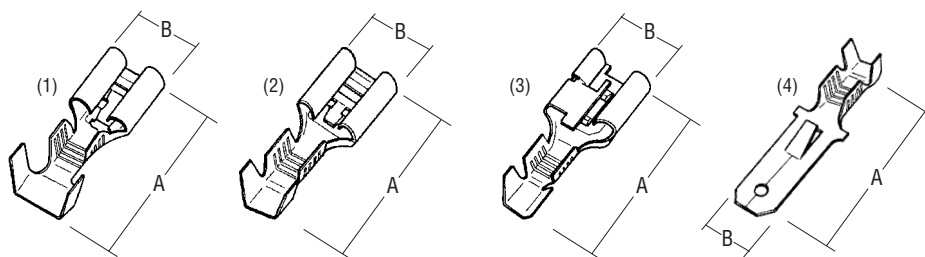


Lanced QC Connector System for 6.0mm & 6.3mm QC terminals

Product Code	Tab/Receptacle	Dim A (mm)	Dim B (mm)	Dim C (mm)	Dim D (mm)	Notes	Part Nos	Reel/Pack size
Housings								
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 ²)	Max Insul Diam (mm)	Notes	Part Nos	Reel/Pack size
Terminals						
H2840ET ⁽¹⁾	Tin Plated Brass	2x 0.7-1.0	2x 3.3	Receptacle, lanced	1-0279506-0	Reel of 1,800
H3555 ⁽²⁾	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 ⁽²⁾	Tin Plated Brass	0.7-2.1	3.9	Receptacle, lanced	1-1627154-2	Reel of 8,000
H3702 ⁽³⁾	Brass	0.3-0.7	2.8	Receptacle, lanced	1-1627161-2	Reel of 8,000
H3702ET ⁽³⁾	Tin Plated Brass	0.3-0.7	2.8	Receptacle, lanced	1-1627161-1	Reel of 8,000
H2832 ⁽⁴⁾	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 ⁽⁴⁾	Tin Plated Brass	0.7-2.1	3.0	Tab, lanced	1-1627133-3	Reel of 7,000

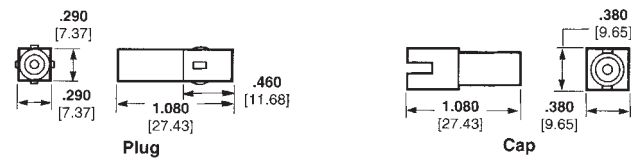
Universal Mate-N-Lok (UMNL) Connector System

Product Overview:

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

Free Hanging or Panel Mount Housings

1 Circuit, Free Hanging



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 unmating¹

Housings

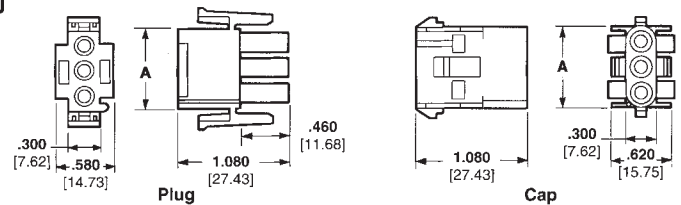
Number of Circuits	A (mm/inch)	Housing Part Numbers	
		UL94V-2 Nylon, Natural Colour ²	Plug
1	—	1-350867-0	770421-1
2	13.97 .550	1-480698-0 ¹	1-480699-0 ¹
3	20.32 .800	1-480700-0 ¹	1-480701-0 ¹
4	26.67 1.050	1-480702-0 ¹	1-480703-0 ¹
5	33.02 1.300	1-480763-0 ¹	1-480764-0 ¹
6	39.37 1.550	1-480704-0 ¹	1-480705-0 ¹
8	52.07 2.050	640586-1 ¹	926308-1 ¹
9	20.32 .800	1-480706-0	1-480707-0
10	64.77 2.550	926302-1 ¹	926309-1 ¹
12	26.67 1.050	1-480708-0	1-480709-0
15	33.02 1.300	1-480710-0	1-480711-0

Notes:

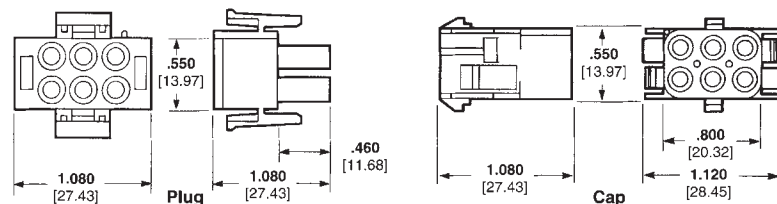
¹In-Line style

²Housing material has 125°C temperature rating
- UL94V-0 Nylon versions are available on request

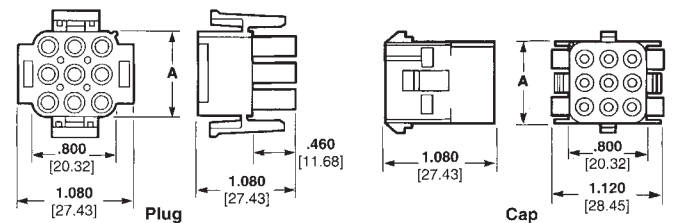
2, 3, 4, 5, 6, 8 and 10 Circuit, In-Line



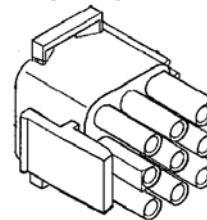
6 Circuit, Matrix



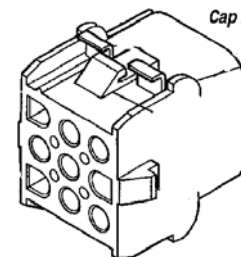
9, 12 and 15 Circuit, Matrix



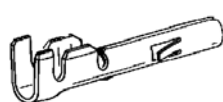
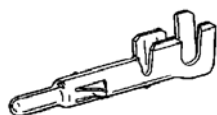
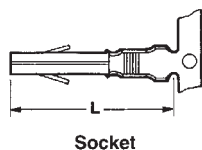
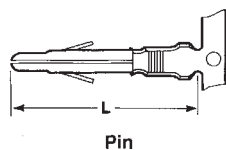
Plug Housing



Cap Housing



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



Pin & Socket Contacts

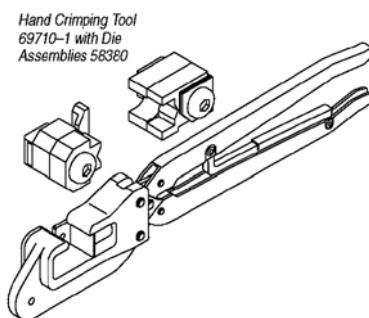
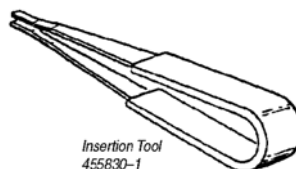
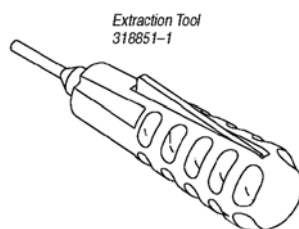
Wire Size Range AWG [mm ²]	Ins. Dia. Range	L Dim. Pin	L Dim. Socket	Material & Finish	Part Numbers			
					Pin Loose Form	Pin Strip Form	Socket Loose Form	Socket Strip Form
24-18 [.2-.8]	.040-.100 1.02-2.54	.790 20.06	.760 19.30	Brass, Pre-tin	350690-1	350561-1	350689-1 ¹	350851-1
20-14 [.5-2.0]	.060-.130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

Note:

- ¹ 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



For more information, refer catalogue 82181

Copper Lugs & Links

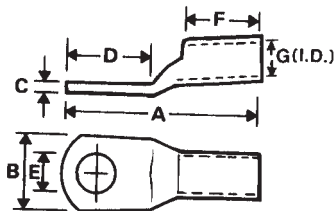
Products covered in this Section:

- **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.

4
Copper Lugs & Links
SECTION 4

Uninsulated Copper Crimp Lugs



Product Code	Wire Size (mm ²)	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	0.5	1/0.80	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			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	2.5	7/0.67	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			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	4.0	7/0.85	M5	21.0	8.7	1.5	11.1	8.0	3.3	2	1	1	-	-	1-1627697-1	Packs of 25
H1403L			M5	27.3	8.7	1.5	14.7	9.2	3.3	2	2	1	-	-	9-1661590-5	Packs of 100
H1404			M6	27.8	10.3	1.2	15.1	9.5	3.3	2	2	1	-	-	4-1200321-7	Packs of 100
H1404A			M8	28.6	13.0	1.0	13.3	9.5	3.3	2	2	1	-	-	1-1627698-0	Packs of 100
H1404B			M10	28.6	13.0	1.0	16.3	9.5	3.3	2	2	1	-	-	3-1200124-8	Packs of 100
H1405	6.0	7/1.04	M6	27.0	10.3	1.2	15.0	9.5	3.7	-	2	1	1	1	5-1200125-2	Packs of 100
H1405A			M8	28.6	13.9	0.9	16.7	9.5	3.7	-	2	1	1	1	9-1200127-5	Packs of 100
H1405B			M10	28.6	13.9	0.9	16.7	9.5	3.7	-	2	1	1	1	1-1627700-1	Packs of 100
H1406S	10.0	7/1.35	M6	27.0	11.9	1.8	15.5	9.5	4.7	-	2	1	1	1	1-1627700-2	Packs of 100
H1406L			M6	29.4	11.9	1.8	15.5	11.5	4.7	-	2	1	1	1	9-1661590-6	Packs of 50
H1406A			M8	28.6	14.3	1.6	16.3	9.5	4.7	-	2	1	1	1	9-1661590-7	Packs of 50
H1406B			M10	30.6	14.3	1.6	16.3	9.5	4.7	-	2	1	1	1	1-1627701-0	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	16.0	7/1.70	M6	39.7	11.6	2.3	16.3	20.6	5.5	-	-	3*	2	2	1-1627702-0	Packs of 50
H1408			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	25.0	19/1.35	M8	43.6	14.7	2.2	19.0	22.0	7.1	-	-	-	2	2	1-1627709-0	Packs of 50
H1416			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	35.0	19/1.53	M6	43.6	18.2	2.7	19.0	22.2	8.4	-	-	-	2	2	1-1627665-0	Packs of 50
H1366			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	50.0	19/1.78	M8	51.6	18.2	3.1	27.0	22.2	9.5	-	-	-	2	2	1-1627711-0	Packs of 25
H1420			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:

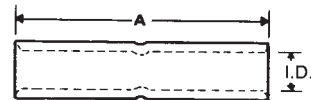
- H1439 is H1438 sleeved to suit 19/0.083
- "No. of Crimps" indicates crimps required using various tools
- all sizes are compatible with Imperial size cables except those marked *

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

Product Code	Wire Size (mm ²)	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	95.0	37/1.78	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 mm² (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


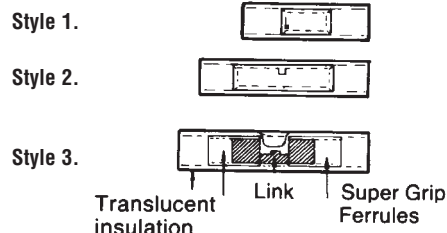
Product Code	Wire Size (mm ²)	Conductor Stranding	Length A (mm)	Internal Diam (mm)	No. of Crimps				Part Nos	Reel/Pack size
					00	18	21	22		
H1451	0.5	1/0.80	22.0	2.1	2	-	-	-	1-1627734-1	Pack of 25
									1-1627734-0	Pack of 100
H1467	2.5	7/0.67	22.0	2.5	2	-	-	-	1-1627746-0	Pack of 100
H1452	4.0	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 ²)	Max Insul Diam (mm)	Length A (mm)	Tooling	Part Nos	Reel/Pack size
Crimp Links with Parallel Splice Conductor (Style 1)							
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
Crimp Links with Centre Dimple (Style 2)							
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
						3-1200113-9	Pack of 15
H2072	BLUE	1.5-2.5	4.0	25.4	#76B, #12C, #12B, #63-4U, #102, #120	1-1659222-0	Pack of 100
						1-1659222-1	Box of 1,000
						1-1659223-0	Pack of 50
H2073	YELLOW	2.5-6.0	5.0	27.0	#76B, #13B, #63-5U, #102, #120	1-1659223-0	Pack of 50
Supergrip Splice (Style 3)							
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.

5

Wire Splices & Solder Sleeves

SECTION 5

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:

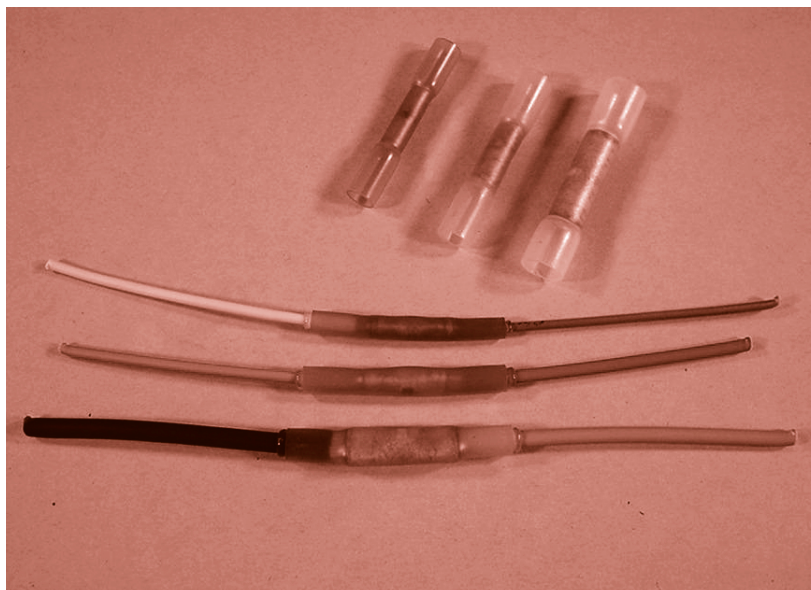
- In-line strain relief
- Resistance to moisture and abrasion
- Protection from wire pull-out
- Easy installation - just crimp & heat
- UL and CUL listed



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
5

Wire Splices & Solder Sleeves

SECTIONS
Heatshrinkable Crimp Splices (cont'd)
Electrical

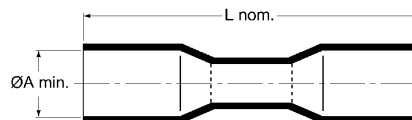
- Dielectric strength - 2500 VAC
- Insulation resistance - 1000 Megohms at 100VDC
- Voltage rating - 600 VAC max.

Chemical

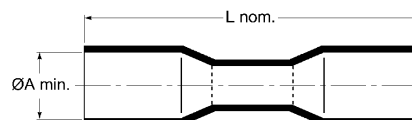
Meets electrical test after conditioning in diesel fuel, brake fluid, ASTM fuel C and engine degreaser

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


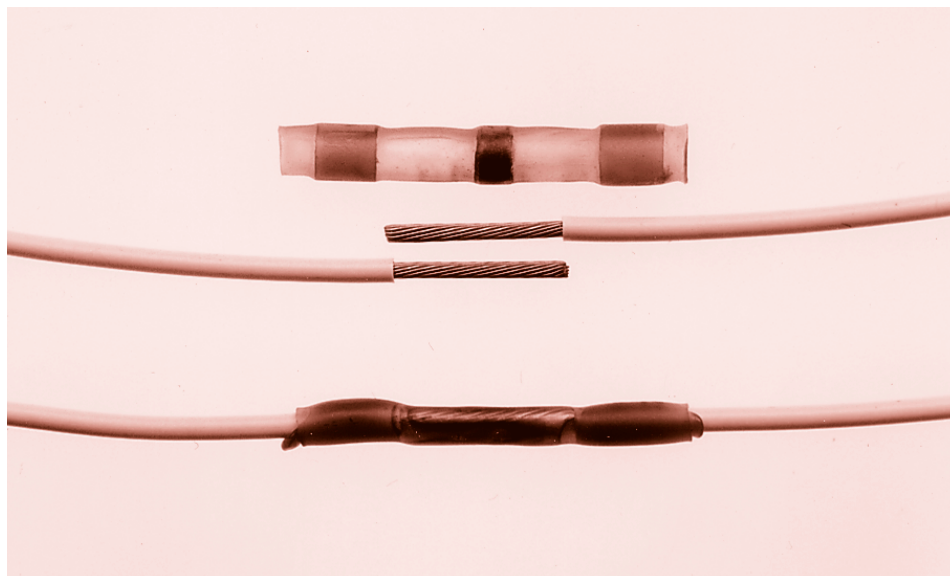
Product Code	Butt Splice Dimensions		Colour	Wire Dimensions			Part Nos	Pack Size
	A min (mm)	L nom (mm)		Conductor (AWG)	Insulation OD max (mm)	Insulation OD min (mm)		
C-203-01	3.68	37.5	Red	22-18	3.56	1.40	8-1199945-7	1,000
C-203-02	4.57	37.5	Blue	16-14	4.45	2.03	7-1199945-2	1,000
C-203-03	6.35	38.1	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 mm²) 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

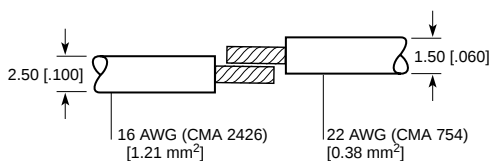
Side A: Size and Number of Conductors		Side B: Size and Number of Conductors							
		26 AWG		24 AWG		22 AWG		20 AWG	
		1	2	1	2	1	2	1	2
26 AWG	1	CWT-9001	CWT-9001	CWT-9001	CWT-9001	CWT-9001	CWT-9002	CWT-9002	CWT-9002
	2	CWT-9001	CWT-9001	CWT-9001	CWT-9002	CWT-9001	CWT-9002	CWT-9002	CWT-9002
24 AWG	1	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: Size and Number of Conductors		Side B: 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/mm² Examples One-to-One Wire Splice

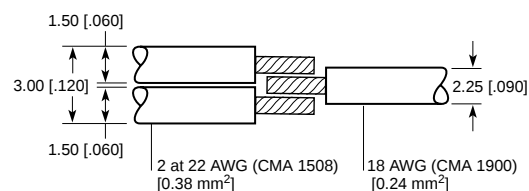


Total CMA = 3180

Total mm² = 1.59

Correct part number selection from Table E
(based on CMA/mm² and nominal jacket wire OD)

Multiwire Splice

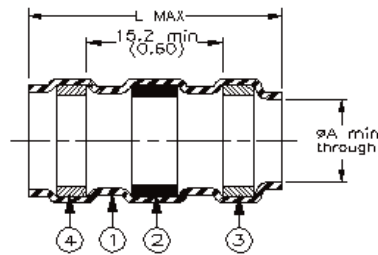


Total CMA = 3408

Total mm² = 1.71

Correct part number selection from Table E
(based on CMA/mm² 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 ² min	Total mm ² 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.

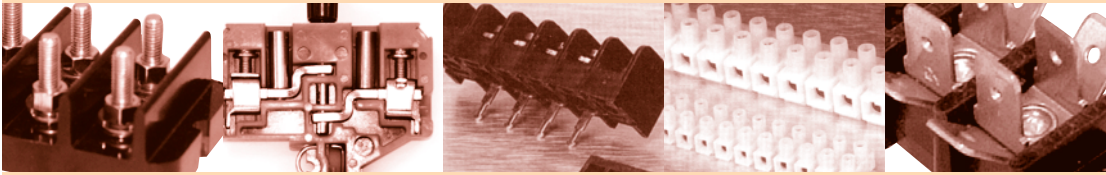
Suitable for PolyCrimp & DuraSeal crimp splices.

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).

6

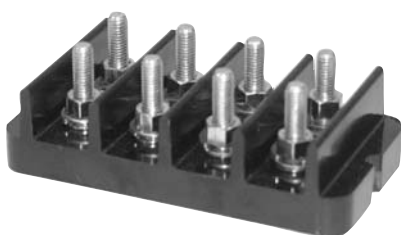
Terminal Blocks

SECTION 6

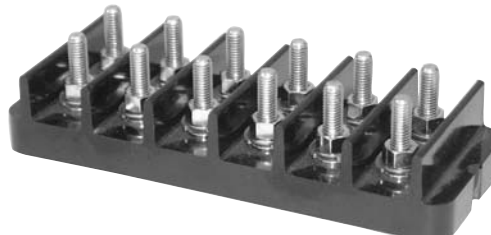
Fixed Screw Terminal Block

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

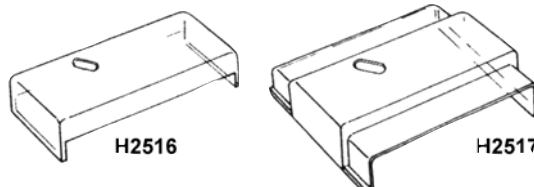
H2509

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

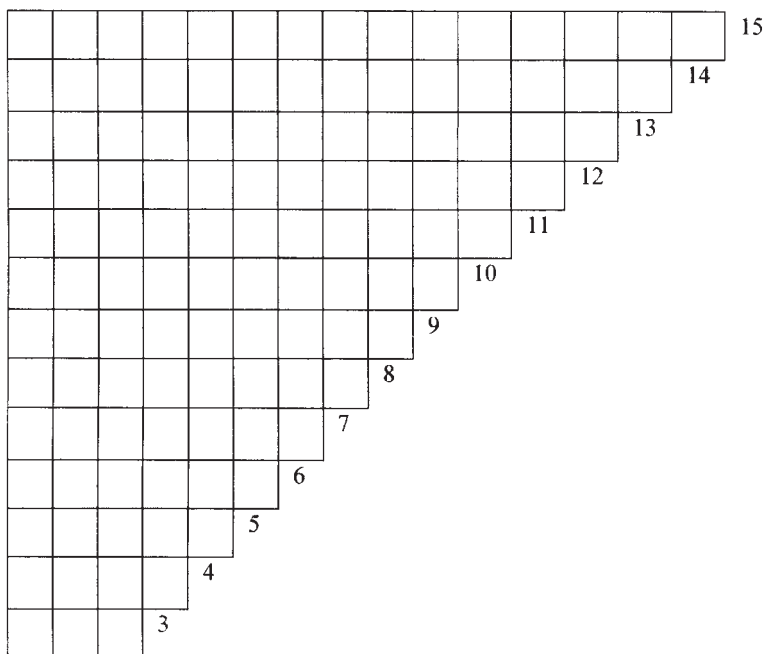


See Specification Guide (for specifying terminal styles required) on following page.

Quick Connect (QC) Terminal Block - Specification Guide



“NOT TO SCALE”



Order Guide:

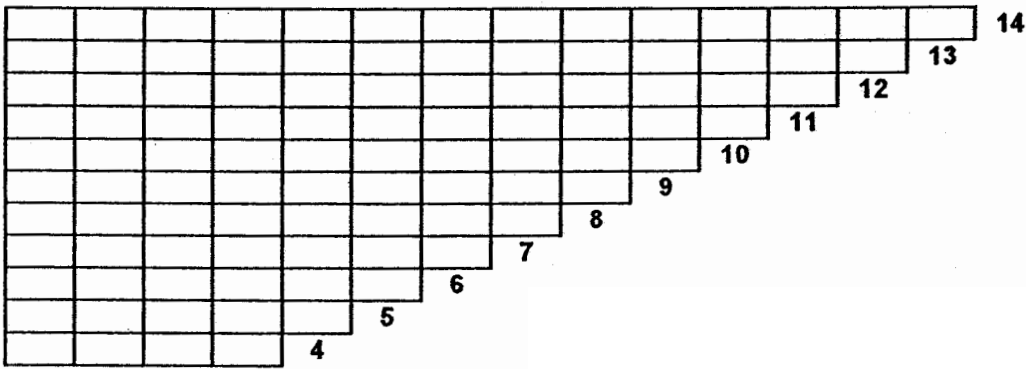
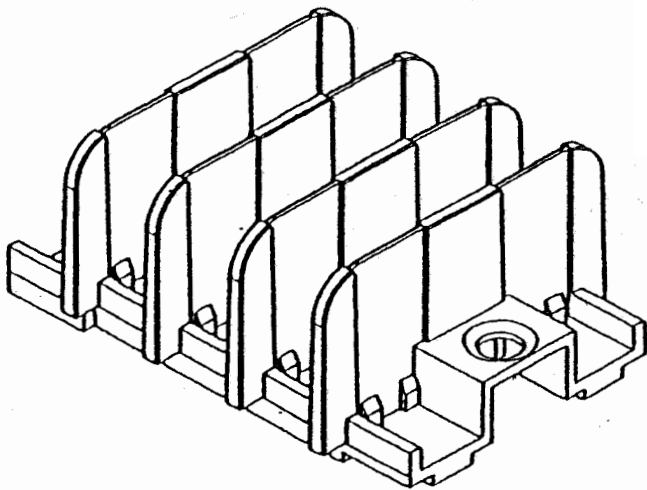
- 1 - Select the row showing the number of positions (including fixing holes) required (3-15 available)
- 2 - In each square, indicate the tab type required (note: must start and end with a fixing hole “X”)
- 3 - A typical 4-way, 6-hole block would look like this:

		•		•	
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

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

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



X FIXING HOLE

BR Bridge

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

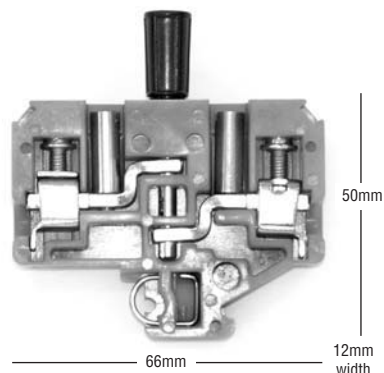
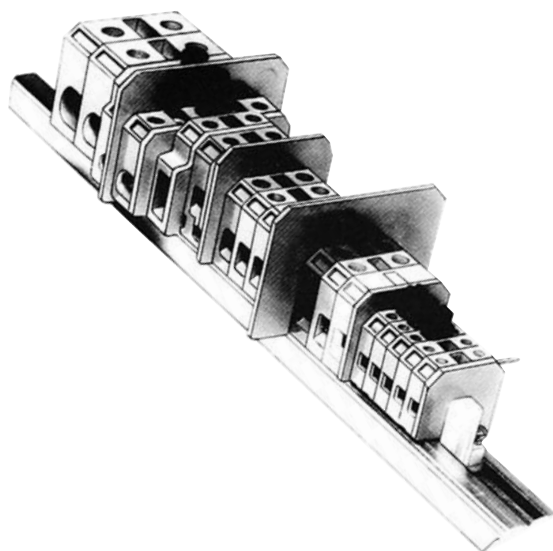
		•		•	
X	A	H	J	N	X

4 - "•" denotes position of screw

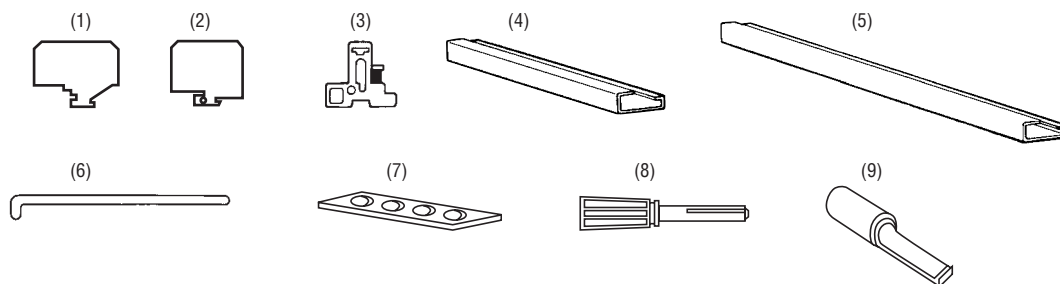
Rail Mount Terminal Blocks

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 ²)
H2608	25 amps	0.5-10



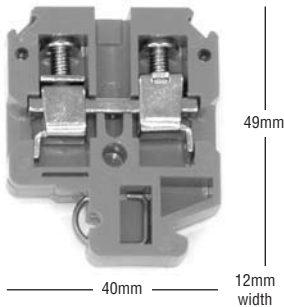
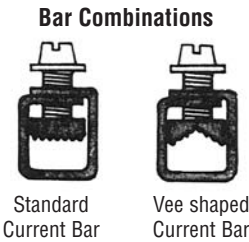
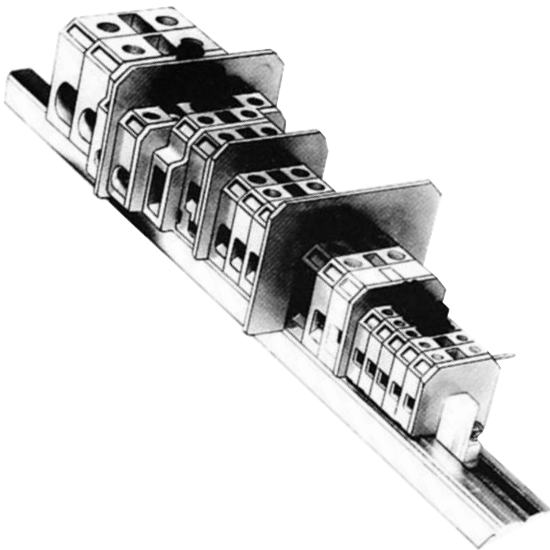
Product Code	Accessories
H2609 ⁽¹⁾	Standard End Plate (melamine)
H3865 ⁽²⁾	Partition
H2232 ⁽³⁾	End Clamp (Nylon)
H2233 ⁽⁴⁾	460mm Mounting Rail
H2233A ⁽⁵⁾	1 metre Mounting Rail
H2234A ⁽⁶⁾	1 metre Locking Pin
H2633 ⁽⁷⁾	*Bridging Link
H2650 ⁽⁸⁾	Disconnect Plug
H4207 ⁽⁹⁾	+Lip Blade Terminal
H4208 ⁽⁹⁾	+Lip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

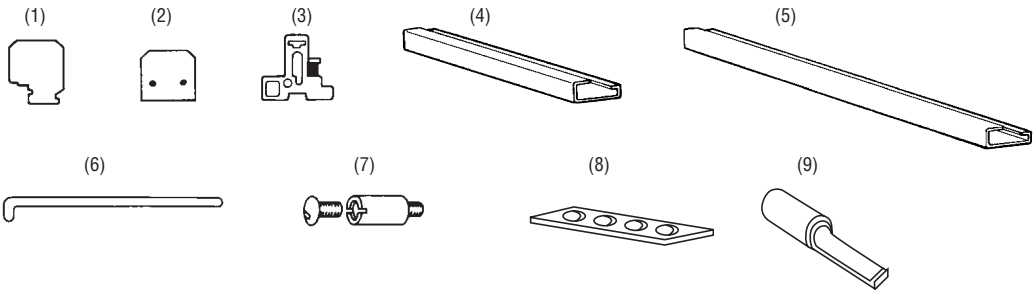
Range Rail Mount Terminals Blocks

- 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 ²)
H2238	48 amps	0.5-10
H2238V	65amps	2.5-12

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



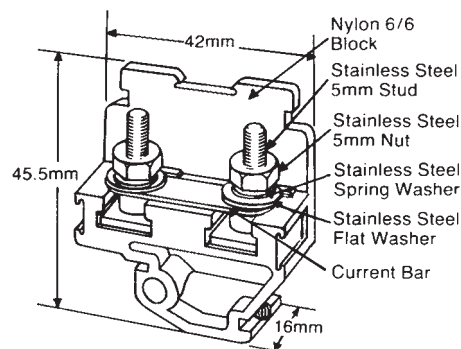
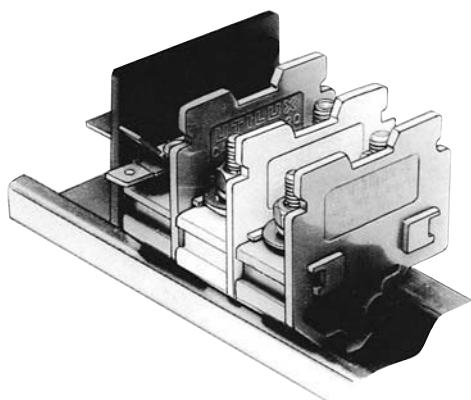
Product Code	Accessories
H2239 ⁽¹⁾	Standard End Plate (melamine)
H3863 ⁽²⁾	Partition
H2232 ⁽³⁾	End Clamp (Nylon)
H2233 ⁽⁴⁾	460mm Mounting Rail
H2233A ⁽⁵⁾	1 metre Mounting Rail
H2234A ⁽⁶⁾	1 metre Locking Pin
H2236M ⁽⁷⁾	Link support and screw
H2631 ⁽⁸⁾	Bridging Link
H4207 ⁽⁹⁾	+Lip Blade Terminal
H4208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

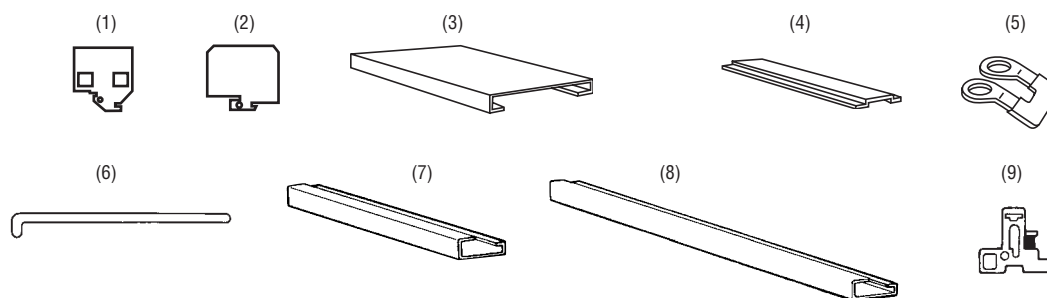
- Vibration-resistant design to reduce risk of connections loosening
- Stud type blocks mean that ring/eye or fork/slotted terminals can be used to ensure more positive connections
- Voltage – 500V max. conductor 7/1.70mm copper



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



Products covered in this Section:

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

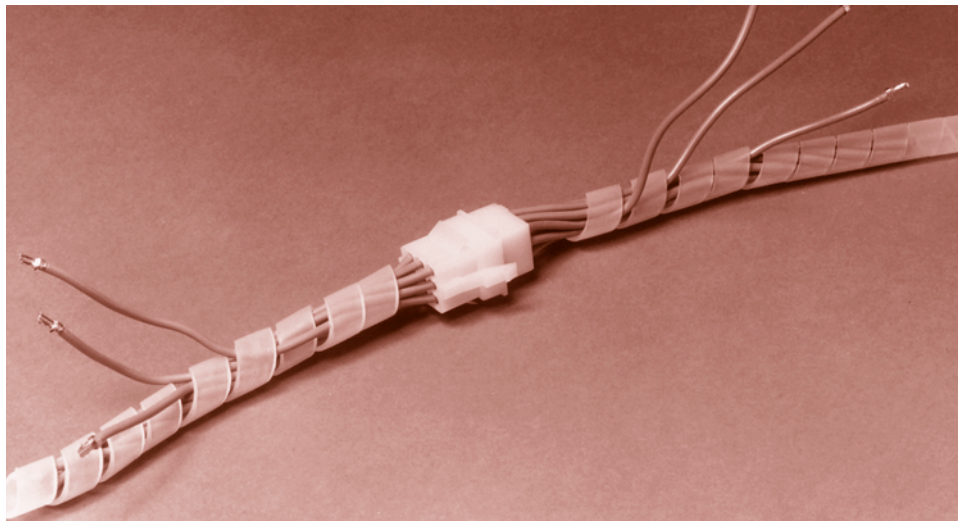
We do more than just terminate wires! We provide products to protect and mount cable harnesses and wire looms, as well as label them.

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

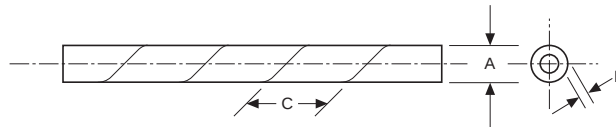
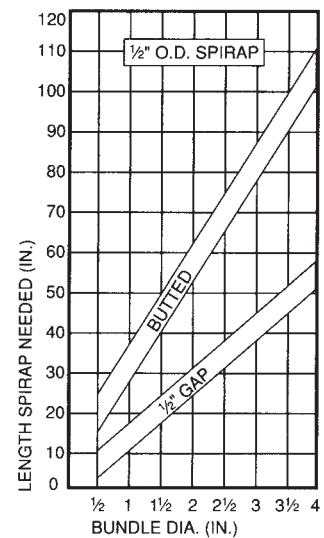
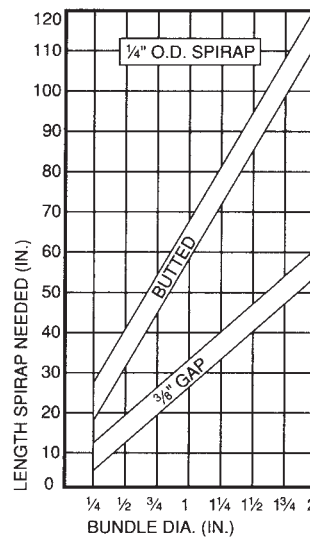
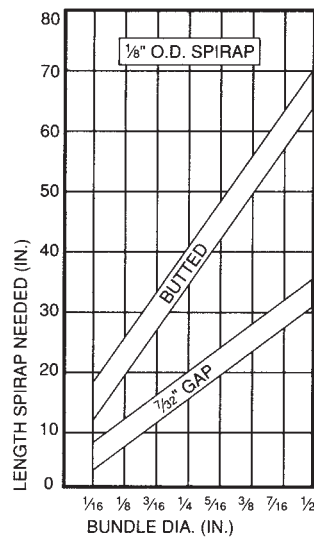
Furnished with each box, the SPIRAP Hand Tool increases the speed of application and permits uniform wrapping along the bundle length. The hand tool is slotted for 3.18mm, 6.35mm and 12.70mm SPIRAP tubing.



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.

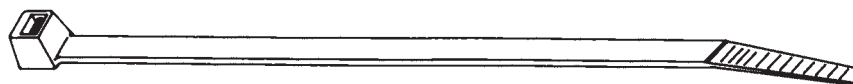


Material	O.D. Size	Max. Bundle Dia. Range	Dimensions			Length m/Box	Part Nos
Polyethylene (nat)	3.18	1.59 to 12.70	3.18	.79	5.54	30.48	500000-2
	6.35	4.76 to 50.8	6.35	1.14	9.53	130.48	500001-2
	12.70	9.53 to 101.6	12.70	1.57	12.70	15.24	500002-1
Flame Retardant Polyethylene (white)	6.35	4.76 to 50.8	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

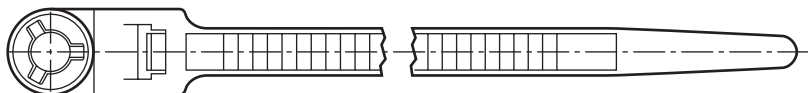
Perfectly round compression, good for use on hoses.



8	.182	.046	4-569654-9	Natural	60 lbs. 27.2 kg	1.75 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.



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

Other lengths available.

Nylon Cable Ties (cont'd)

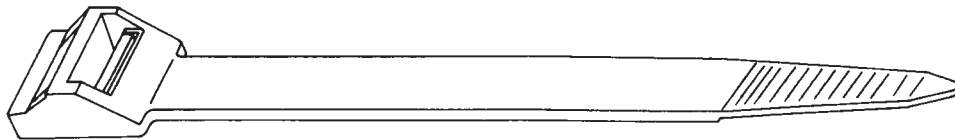
AMP-TY Heavy Duty Cable Ties



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.

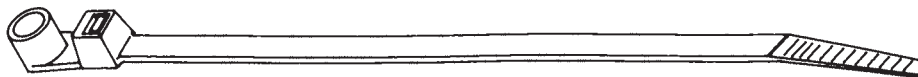
Perfect for prototype construction and service requiring the addition of wires on existing harnesses.

Nylon Cable Ties (cont'd)

AMP-TY Screw Mounting Cable Ties



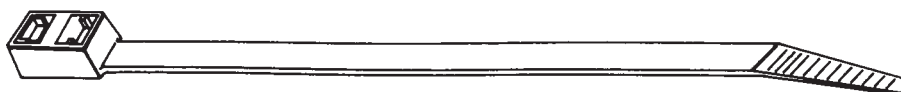
One-piece, all-nylon ties for quick, simple cable mounting. Bundling and mounting are done with one unit.



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
				2-608694-9	Natural			1000
215.0	4.78	1.24	#10 Screw	2-608694-0	Black	222.5 N	44.45	1000
				1-608694-9	Natural			100
				1-608694-0	Black			100
				2-608695-9	Natural			1000
408.0	4.75	1.40	#10 Screw	2-608695-0	Black	222.5 N	101.6	1000
				1-608695-9	Natural			100
				1-608695-0	Black			100
				4-608696-9	Natural			50
413.0	7.80	2.03	1/4" Screw	4-608696-0	Black	534 N	101.6	50
								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.

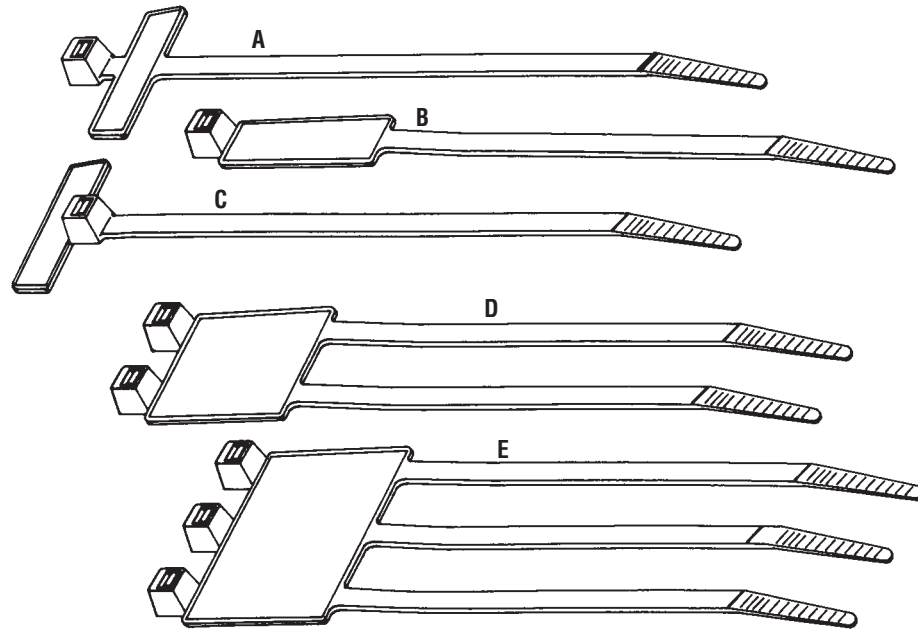


Dimensions (Approximate)			Part Number	Colour	Minimum Tensile Strength	Maximum Bundle Diameter	Package Quantity
Length	Width	Thickness					
210.0	4.70	1.17	1-608698-9	Natural	222.5 N	19.05	100
			1-608698-0	Black			100
390.0	4.7	1.4	1-608700-0	Black	222.5 N	50.8	100

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

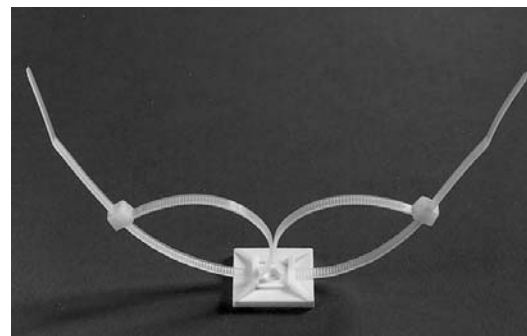
Part No. 608801-1

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

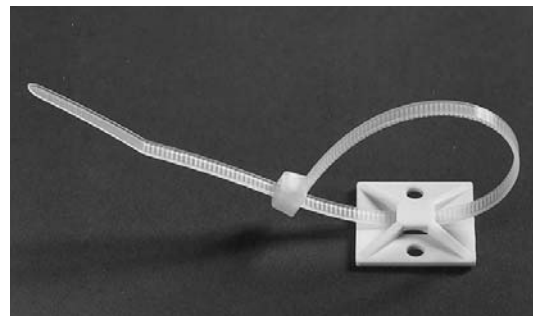
Part No. 608802-1

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 .48mm 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

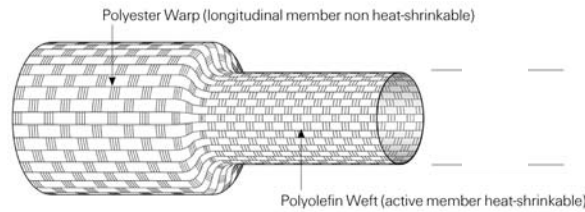
1,000 hours:
-40°C to 150°C

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		
Standard Sizes				
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
Non-Standard Sizes				
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

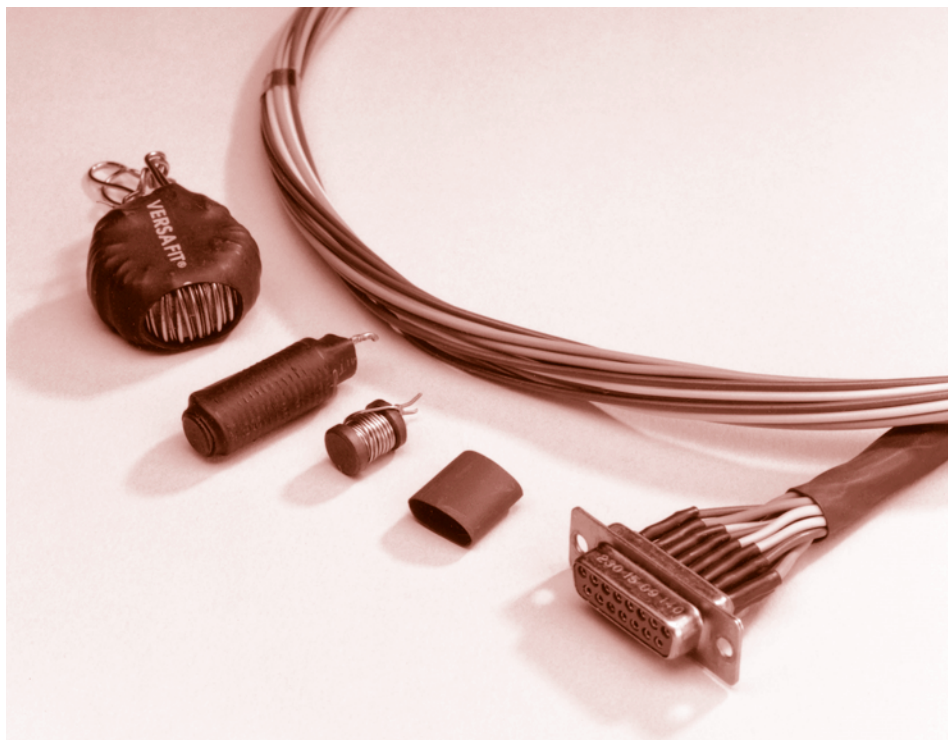
Product Facts

- 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)

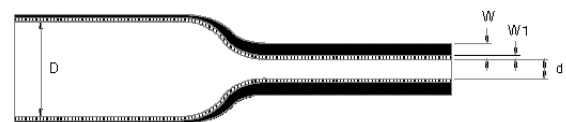


Versafit Product Dimensions

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:

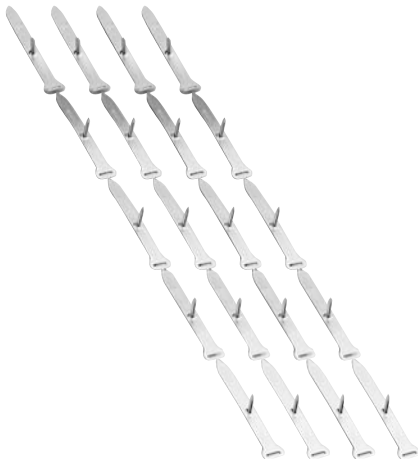
**Wall thickness will be less if recovery is restricted during shrinkage.

Additional Ordering Information

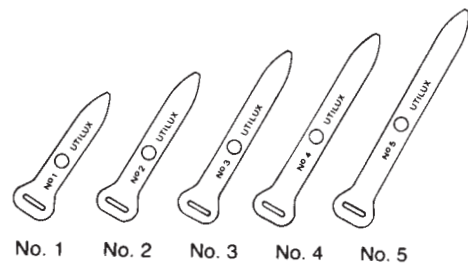
Colour	Standard = Black
Size selection	Always order the largest size that will shrink snugly over the component to be covered. Special order sizes are available upon request.
Standard packaging	Pieces.
Ordering description	Specify product name, size and color (for example, PD Caps 1/4-0).

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)
Plain	Plated		
H335B#1	H335D#1	Brass with hardened nail	1 38
H335B#2	H335D#2	Brass with hardened nail	2 44
H335B#3	H335D#3	Brass with hardened nail	3 51
H335B#4	H335D#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 ² cable
22							x	6-120mm ² cable; hex crimp
00							x	0.5-100mm ² 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-LETRIC 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 ¹	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 ³ 224027-2 ²	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 ³ 224027-2 ²	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 ⁴	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:
¹ 22AWG only

² 12AWG only

³ 10AWG only

⁴ 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. Length 240mm Weight..... 460g



Product Code	Description
#108	Gear driven large capacity ratchet cable cutter, with rapid blade advance. robust forged construction cuts up to 400mm ² single core copper cable. Not suitable for steel. Features Rubber handle grips; Single hand operation; Emergency release mechanism; Blade reversing lever Length 260mm Weight..... 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. Range 0.13-6mm ² Length 210mm Weight..... 300g



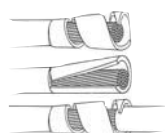
Cable Strippers (cont'd)



Product Code	Description
#153	Self adjusting strip and cut tool, with sophisticated 'closed loop' cam mechanism which reduces hand effort and minimises operator fatigue.
Features	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
Range	0.08 to 6.0mm ² (stripping) 6.0mm ² (max) stranded, 4.0mm ² (max) solid
Size	205mm(L) x 19mm(W) x 105mm(H)
Weight	200g



Product Code	Description
#151	Self adjusting wire stripper and cutter specially designed for flexible cables.
Features	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
Range	Up to 9mm diam. cables (stripping) Flexible cables up to 1.5mm ² (cutting)
Size	90mm(L) x 18mm(W) x 38mm(H)
Weight	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.
Features	Triple Action Strip; Easy to achieve 'window' strips; Unique blade profile for difficult insulation such as rubber; Replaceable blades
Range	– 4.5mm – 19 to 40mm diameter
Length	– 138mm, 153mm (max)
Weight	– 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.
Range	0.5mm ² to 4.0mm ²
Crimp type	Pre-insulated – Oval; Uninsulated – Indent
Length	203mm
Weight	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.
Range	0.75mm ² to 2.1mm ²
Crimp type	Roll-in for open barrel terminals
Length	210mm
Weight	230g



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



Product Code	Description
#00	General purpose pliers for uninsulated copper lugs and links. Simple and robust. A must for every tradesman.
Range	0.5mm ² to 10.0mm ²
Crimp type	Indent
Length	254mm
Weight	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.
Range	Red, Blue and Yellow pre-insulated (0.5 to 5.5mm ²)
Crimp type	Oval on conductor/Diamond on insulation
Length	230mm
Weight	550g



Product Code	Description
#102M	Ratchet type tool for miniature yellow type pre-insulated terminals (eg. H4200)
Range	0.2mm ² to 0.5mm ²
Crimp type	Oval
Length	230mm
Weight	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. Range 0.5mm ² to 8.0mm ² Crimp type Indent Length 230mm Weight 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. Range 0.5mm ² to 10mm ² Crimp type U Length 230mm Weight 550g

JAW NO.	CABLE (mm ²)
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 ² to 1.5mm ²) 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. Crimp type Oval on conductor/Diamond on insulation Length 265mm Weight 540g



Product Code	Description
#12C	Ratchet type tool for BLUE (1.5mm ² to 2.5mm ²) 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. Crimp type Oval on conductor/Diamond on insulation Length 265mm Weight 540g



Product Code	Description
#13B	Ratchet type tool for YELLOW (2.5mm ² to 6.0mm ²) 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. Crimp type Oval on conductor/Diamond on insulation Length 330mm Weight 970g

Utilux Professional Hand Crimp Tools

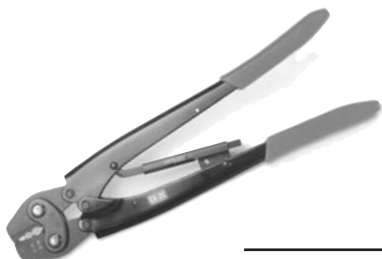
Product Code	Description
#16B	Ratchet type tool for uninsulated copper lugs (CG series). The long handles require less crimping effort. range 0.5 to 10mm ² Crimp type Indent Length 250mm Weight 700g



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



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



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



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



Utilux Professional Hand Crimp Tools (cont'd)

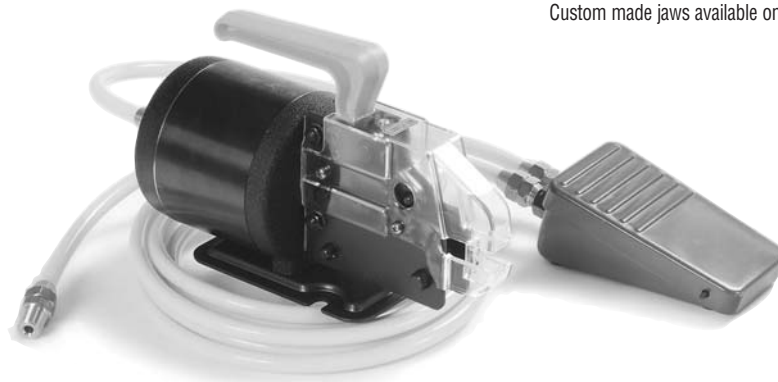


Product Code	Description
#21	Hand operated, mechanical lever tool for copper lugs and links. Features built in, selectable crimp die set for a range of lug and link sizes. Range 6mm ² to 50mm ² Crimp type Hexagonal Length 410mm Weight 1.4kg



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. Range 6mm ² to 120mm ² Crimp type Hexagonal Length 670mm Weight 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. Range Up to 6mm ² terminals Crimp type Depends on jaws selected input 490kpa air Output 1.3 tons Weight 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 ² #7jaws/1 For closed end connectors 0.5 to 6.0mm ² 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 ²]	.125	3.18	696126-1	408-8618
		16-14 AWG [1.3-2 mm ²]	.150	3.81		
		12-10 AWG [3-5 mm ²]	.230	5.84		
		22-18 AWG [0.3-0.8 mm ²]	.100	2.54		
Insulated PIDG FASTON Receptacles		16-14 AWG [1.3-2 mm ²]	.170	4.32	696125-1	408-8617
		12-10 AWG [3-5 mm ²]	.250	6.35		
		22-10 AWG [0.3-5 mm ²]	N/A	—		
Uninsulated SOLISTRAND Terminals and Splices		22-18 AWG [0.3-0.8 mm ²]	.130	3.30	696202-1	408-8620
		20-16 AWG [0.5-1.3 mm ²]	.170	4.32		
Uninsulated FASTON Receptacles and Tabs		18-14 AWG [0.8-2 mm ²]	.180	4.6	696202-1	408-8619
		24-20 AWG [0.2-0.5 mm ²]	.060	1.52		
D-Sub. AMPLIMITE Connectors 20 DF Contacts		28-22 AWG [0.09-0.3 mm ²]	.054	1.37	696202-1	408-8619
Circular DIN Connectors Contacts		24-20 AWG [0.2-0.5 mm ²]	.080	2.03		
Circular Plastic Connectors (CPC) Type III+ Contacts		18-14 AWG [0.8-2 mm ²]	.100	2.54		
MATE-N-LOK Connectors Commercial, Universal and Universal II Contacts		24-18 AWG [0.2-0.8 mm ²]	.100	2.54		
Miniature Rectangular MR Connectors Contacts		20-14 AWG [0.5-2 mm ²]	.130	3.30		
		26-24 AWG [0.14-0.2 mm ²]	.050	1.27		
		26-18 AWG [0.14-0.8 mm ²]	.115	2.92		

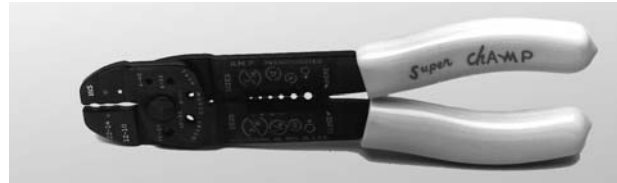
For additional product information, refer catalogue 1308585.

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 mm²]
- 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

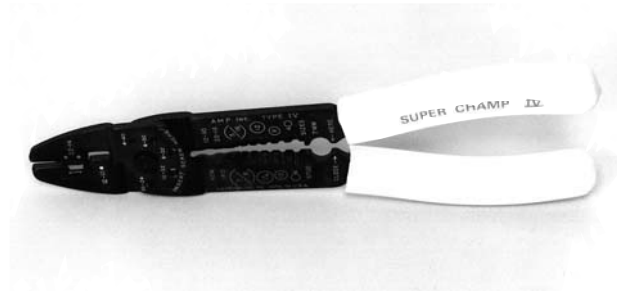
Part No. 604252-1 (Boxed)
Part No. 605144-1 (Display Package)

Instruction Sheet 408-2914
Overall Length — 220mm

- Crimps insulated and uninsulated terminals and splices, 22-10 AWG [0.3-5 mm²]
- 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 mm²]

- Cuts and strips wire, 22-10 AWG [0.3-5 mm²]
- 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

mm²]

- Crimps FASTON terminals (F crimp), 22-18 AWG [0.3-0.8 mm²]
- Crimps insulated, closed-barrel PIDG and PLASTI-GRIP terminals and splices, 22-10 AWG [0.3-5 mm²]; 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 mm²]

- Crimps FASTON Flag **Tab-Lok** receptacles
- Crimps FASTON terminals (F crimp), 22-18 AWG [0.3-0.8 mm²]
- Crimps insulated, closed-barrel PIDG and PLASTI-GRIP terminals and splices, 22-10 AWG [0.3-5 mm²]; also, closed end splices
- Cuts bolts and machine screws



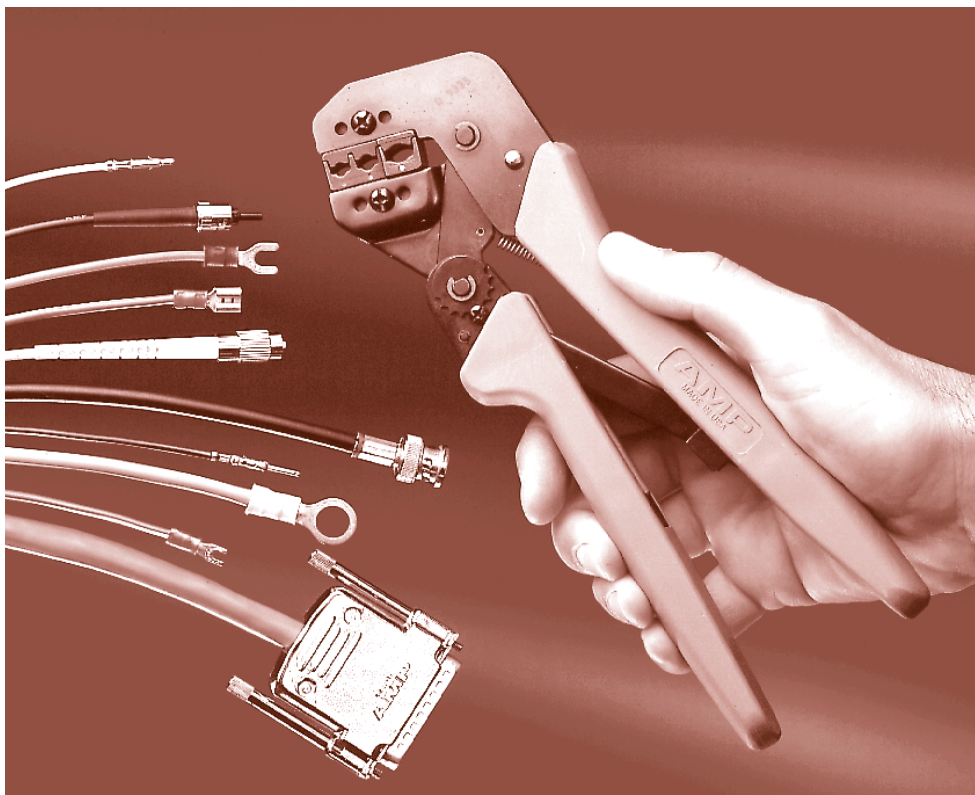
AMP Professional Hand Crimp Tools

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 ¹	AMP® Product	RG/U Cable ² 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
		50 Ohm BNC	Belden 9907, 89907, Comm/Scope 2104	"O"/Commercial	—	58435-1
			174, 188, 316, 179, 161, 187	"O"/Commercial	318452-1	318452-2
			62, 59, Belden 9104, 9112	Hex/Commercial	—	58436-3
			Belden 8281, 9141	"O"/Commercial & Military	—	58537-1
			180, 195, Belden 8218, 9248, 9114	Hex/Commercial	—	58436-2
		75 Ohm BNC and TNC	58	"O"/Commercial & Military	—	58538-1
			62, 59	"O"/Commercial	—	58539-1
		75 Ohm BNC	6, Belden 8281	"O"/Military	—	220189-3
			179, 161, 187	"O"/Commercial	—	58536-1
			62, 59	Hex/Commercial	—	58538-1
			Double Braid 59, Belden 8281, 9141	"O"/Commercial	318451-1	318451-2
			Belden 9248, 9114	Hex/Commercial	58531-2	58425-2
		50 and 75 Ohm BNC	Belden 8218	Hex/Commercial	58531-1	58425-1
			6, Belden 8281	"O"/Commercial	—	58536-1
		50 Ohm N	58, 62, 59	"O"/Commercial	—	58174-1
			8, 213, 11, 216, 9, 214	Hex/Commercial	318451-1	318451-2
		Miniature UHF	58	Hex/Commercial	58531-2	58425-2
			174, 316, 188, 179, 161, 187, RD 316, 188 Double Braid	Hex/Commercial	58531-3	58425-3
		50 Ohm SMB	178, 196, 174, 316, 188, 179, 161, 187	"O"/Commercial	—	58536-1
			58, 62, 59	"O"/Commercial	—	58174-1
		50 and 75 Ohm Consumer BNC	174, 316, 188, 179, 161, 187	Hex/Commercial	58500-1	58489-1
			58, 62, 59	Hex/Military	58499-1	58483-1
		Series F CATV Plugs	.259, .324, .384 [6.6, 8.2, 9.8] Dia.	Hex/Commercial	—	58046-1
			59, 6, 7 .290, .343 [7.4, 8.7] Dia.	"F" / "O"	58558-1	58558-2
			59, 6 .360 [9.1] Dia.	"F" / "O"	58559-1	58559-2
		Braid-Pic Braid Termination	58, 62, 59	Hex/Commercial	58621-1	58621-2
			22-16 AWG [0.3-1.3 mm ²]	Hex/Commercial	58622-1	58622-2
Terminals and Splices	82042	Insulated Terminals and Splices (PIDG and PLASTI-GRIP)	16-14 AWG [1.3-2.0 mm ²]	Hex/Commercial	58663-1	58663-2
			12-10 AWG [3.0-5.0 mm ²]	—	—	220195-1
	65505	Uninsulated Terminals and Splices (SOLISTRAND)	22-10 AWG [0.3-5.0 mm ²]	—	58433-3 ³	58423-1 ³
	65472	Closed End Splices	ECV-ECN 18-16 AWG [0.8-1.3 mm ²]	—	58546-1	58545-1
			ECN 18-10 AWG [0.8-5.0 mm ²]	—	217212-1	217212-2
Receptacles and Tabs	82004	Spare Wire Caps	ECV-ECN 18-10 AWG [0.8-5.0 mm ²]	—	58573-1	—
		FASTON 250 Series Recept.	.048-.225 [1.22-5.72] Ins. Dia.	—	58524-1	58524-2
			18-14 AWG [0.8-2.0 mm ²]	—	58525-1	58525-2
		Ultra-Fast FASTON .250 Tabs (Straight)	14-10 AWG [2.0-5.0 mm ²]	—	58628-1	58628-2
		.110/.125 Recept.	26-14 AWG [0.13-2.0 mm ²]	—	58630-1	58630-2

¹ Request catalogue for detailed product information.

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

³ 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

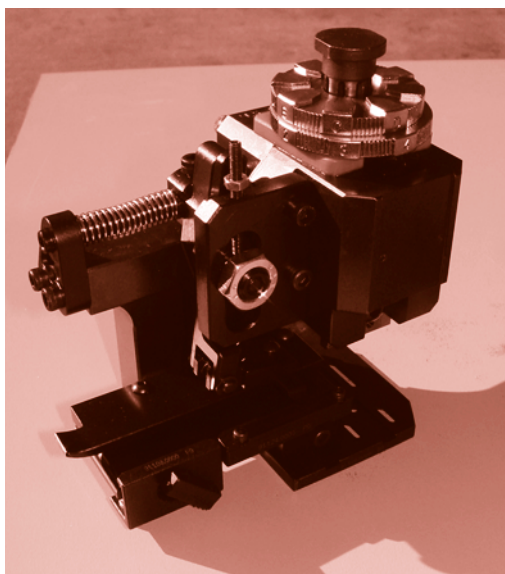
Tyco Electronics supplies side feed and end feed applicators for strip form terminals that fit a range of Universal european and American type bench presses.

Offering quick change capability, adjustment for crimp height on both

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

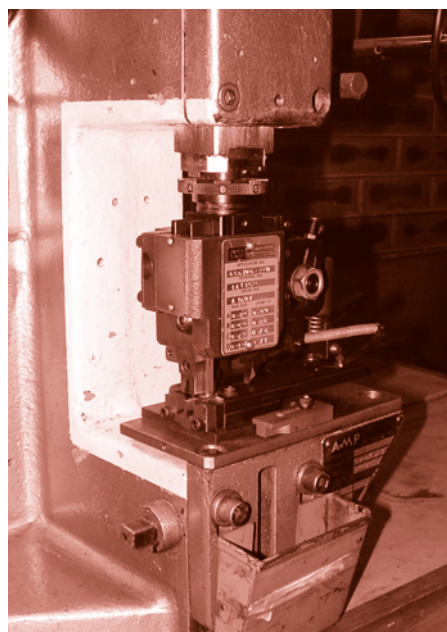
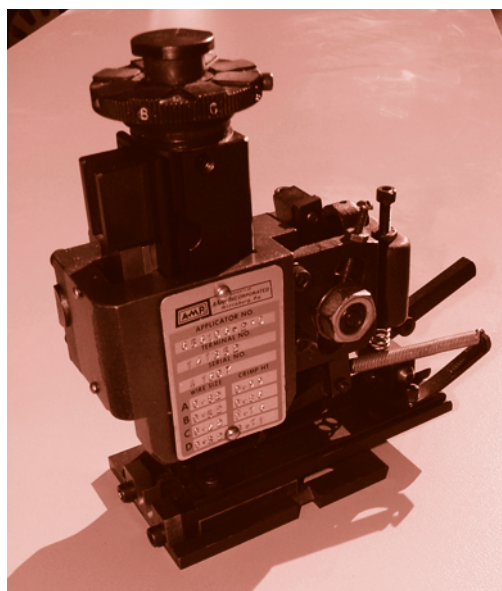
For customer terminals, custom-designed applicators can be supplied if required.

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

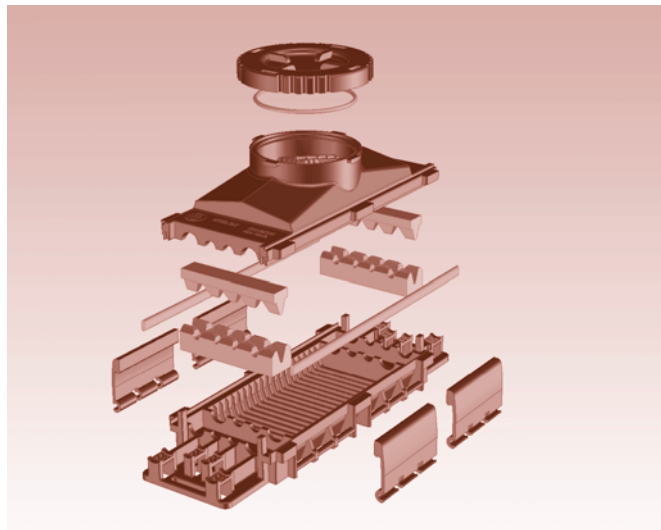
All supplied and serviced by Tyco Electronics.



Design & Fabrication Services

Overview :

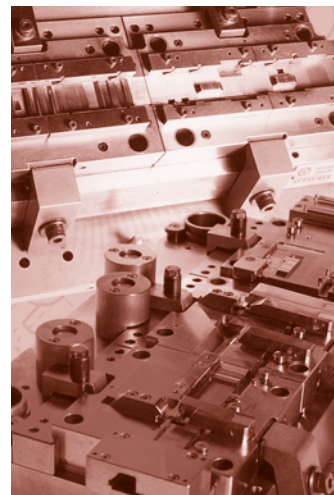
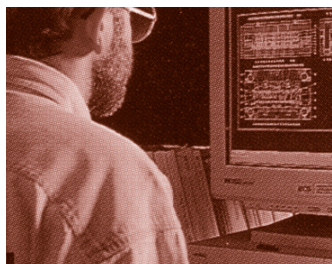
- Design services for:
 - Terminals, connectors & housings
 - Injection moulding dies
 - Progressive stamping dies for custom terminals
 - Formed metal & injection moulded enclosures
 - Custom application tooling
- Custom manufacture of:
 - Blanked, drawn & formed metal contacts
 - Appliance & Automotive 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 ²)
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 ²)	Metric (mm ²)
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 ²)
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 ²)	No. & Diam of Wires	Nominal Conductor Area (mm ²)	No. & Diam of Wires	Nominal Conductor Area (mm ²)	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.

Product Code	Page	Product Code	Page	Product Code	Page	Product Code	Page
BLF05	13	H1425	47	H2092	78	H2596	28
BLF07	13	H143	78	H2095	11	H2608	60
BLF1	13	H1436	46	H2232	60, 61, 62	H2609	60
BLF10	13	H1437	46	H2233	60, 61, 62	H2631	61
BLF120	13	H1438	47	H2234	60, 61, 62	H2633	60
BLF16	13	H1439	47	H2236	61	H2650	60
BLF2	13	H144	78	H2238	61	H2698	24
BLF25	13	H1440	47	H2239	61	H2708	26
BLF3	13	H1442	46	H2271	19	H2723	24
BLF35	13	H1443	47	H2272	19	H2727	24
BLF4	13	H1445	46	H2273	19	H2731	26
BLF50	13	H145	78	H2276	30	H2736	31
BLF6	13	H1451	47	H2278	30	H2737	31
BLF70	13	H1452	47	H2280	30	H2738	31
BLF95	13	H1453	47	H2286	30	H2775	19
H1064	9	H1454	47	H2287	30	H2790	78
H1094	9	H1455	47	H2288	30	H2796	78
H1129	2	H1456	47	H25000	3	H2799	11
H1129	2	H1458	47	H2501	56	H2801	11
H1135	11	H1460	47	H2501	56	H2802	11
H1136	12	H1461	47	H2502	56	H2803	11
H1138	12	H1462	47	H25025	3	H2804	11
H1139	11	H1467	47	H25031	3	H2805	12
H1143	4	H1488	47	H2508	56	H2806	12
H1144	3	H1581	26	H2509	56	H2807	12
H1145	4	H170	78	H25103	2	H2809	11
H1166	9	H1856	14	H25104	2	H2815	12
H1168	9	H1857	15	H25106	2	H2816	12
H1169	8	H1859	26	H25107	2	H2818	11
H1183	8	H1863	15, 17	H2511	56	H28308	25
H1191	6	H1864	15	H2512	56	H28309	25
H1192	8	H1867	19	H2516	56	H28310	25
H1239	24	H1906	9	H2517	56	H28311	25
H1287	14	H1909	10	H2519	57	H28312	25
H1289	17	H1911	9	H25200	3	H2832	8, 42
H1292	15	H1916	8	H25201	3	H2833	7
H1365	46	H1925	8	H25202	3	H2837	10
H1366	46	H1927	9	H25203	3	H2840	6
H1368	46	H1944	9	H25400	5	H2844	29
H1369	46	H1968	4	H25411	4	H2845	29
H1399	46	H1971	7	H25440	4	H2846	29
H1400	46	H1972	7	H25449	5	H2847	29
H1401	46	H1973	7	H25450	5	H2848	29
H1402	46	H1974	7	H25453	5	H2849	29
H1403	46	H1988	9	H2557	26	H2853	30
H1404	46	H1991	9	H25702	8	H2880	2
H1405	46	H1992	9	H25706	8	H29100	26
H1406	46	H1999	9	H25707	8	H29101	26
H1407	46	H2023	38	H25734	6, 42	H29104	26
H1408	46	H2026	38	H25735	6, 42	H29105	26
H1409	46	H2047	38	H2590	4	H29109	26
H141	78	H2048	38	H25901	7	H29110	26
H1410	46	H2049	38	H25905	7	H29111	26
H1411	46	H2050	38	H25906	7	H29115	26
H1415	46	H2068	48	H2590B	4	H29116	26
H1416	46	H2069	48	H2591	6	H29117	26
H1419	46	H2070	48	H25910	7	H29600	24
H1420	46	H2071	48	H2592	6	H30008	11
H1421	46	H2072	48	H2593	6	H30009	11
H1422	47	H2073	48	H25930	7	H30011	12
H1423	47	H2084	78	H25931	7	H30013	11
H1424	47	H2088	11	H2594	28	H30801	11
H1424	47	H2089	12	H2595	28	H3110	16

Product Guide

Part Number Index

Product Code	Page	Product Code	Page	Product Code	Page
H3111	16	H3823	62	H4220	33
H3112	16	H3824	62	H4221	33
H3113	16	H3863	61	H4222	33
H3114	16	H3863	61	H4223	33
H3115	16	H3865	60, 62	H4225	33
H3116	16	H3906	14	H4226	33
H3117	16	H3907	14	H4227	33
H3118	16	H3910	48	H4228	33
H3119	16	H3911	48	H4229	33
H3120	16	H3912	48	H4230	33
H3121	16	H3916	31	H4231	33
H3122	16	H3917	31	H4232	33
H3123	16	H3918	31	H4233	33
H3125	16	H3919	31	H4234	33
H3126	16	H3920	31	H4237	33
H3127	16	H3922	31	H4238	33
H3128	16	H3923	31	H4239	33
H3129	16	H3930	14	H4240	33
H3130	16	H3931	14	H430	14
H3131	16	H3932	14	H430	14
H3132	16	H3938	17	H430	14
H3133	16	H3980	24	H4312	18
H3134	16	H3986	19	H4314	18
H3137	16	H4107	31	H4315	18
H3138	16	H4108	31	H4317	18
H3139	16	H4109	31	H4321	18
H3140	16	H4110	32	H4323	18
H3161	16	H4111	32	H4326	18
H3162	16	H4112	32	H4331	18
H3183	16	H4113	32	H4332	18
H3185	16	H4114	32	H4333	18
H3187	16	H4115	32	H4334	18
H3215	17	H4116	32	H435	15
H3223	17	H4117	32	H4412	34
H3225	17	H4118	32	H4414	34
H3227	17	H4119	32	H4415	34
H3233	17	H4120	32	H4417	34
H3234	17	H4121	32	H4421	34
H3320	11	H4122	32	H4423	34
H3321	42	H4123	32	H4425	34
H3324	42	H4124	32	H4426	34
H3330	41	H4125	32	H4431	34
H3331	41	H4126	32	H4432	34
H3334	41	H4127	32	H4433	34
H3335	41	H4128	32	H4434	34
H335	77	H4129	32	H4512	35
H349	38	H4130	32	H4514	35
H3504	18	H4131	32	H4515	35
H3509	18	H4132	32	H4517	35
H3555	6, 42	H4133	32	H4521	35
H3555	42	H4134	32	H4523	35
H3556	30	H4137	32	H4525	35
H3558	28	H4138	32	H4526	35
H3559	28	H4139	32	H4531	35
H3560	29	H4140	32	H4532	35
H3561	29	H414A	15	H4533	35
H3562	29	H4162	32	H4534	35
H3563	28	H4202	33	H6518	26
H3564	28	H4203	33	H6526	26
H3565	28	H4207	31, 60, 61	H942	10
H3566	28	H4208	31, 60, 61	H946	9
H3575	6	H4209	31, 60, 61	H953	7
H3579	9	H4210	33		
H3624	19	H4211	33		
H3625	19	H4212	33		
H3702	6, 42	H4213	33		
H3710	4	H4214	33		
H3716	5	H4215	33		
H3754	5	H4216	33		
H3820	62	H4217	33		
H3821	62	H4218	33		
H3822	62	H4219	33		

11

Part Number Index

SECTION 11

Part Number Index

Base Part No.	Page	Base Part No.	Page	Base Part No.	Page	Base Part No.	Page
41532	20	500000	65	735075	22	1659218	48
41619	21	500001	65	770421	43	1659219	48
41772	20	500002	65	926291	23	1659220	48
42067	21	500004	65	926302	43	1659221	48
42095	21	500005	65	926308	43	1659221	48
42100	20	500013	65	926309	43	1659222	48
42452	21	500015	65	926522	23	1659222	48
42460	22	500017	65	926820	23	1659222	48
52037	38	500023	65	1190361	54	1659223	48
58380	44	500024	65	1190419	54	1659402	48
60338	21	500030	65	1190624	54	1659403	48
61188	20	500031	65	1190758	75	1659404	48
62409	22	500035	65	1190796	51	1659453	31
62553	22	500036	65	1190832	54	1661591	47
63498	23	500037	65	1191323	75	1661591	47
63539	20	520334	38	1192735	75	1661591	47
63603	22	520335	38	1192792	75	1661591	47
63849	22	520336	38	1192851	75	1661591	47
63982	22	520338	38	1193408	51	1661591	47
69710	44	520339	38	1193522	54	1661591	47
100495	20	520340	38	1193602	75	6003324	75
120093	66	520401	38	1193626	75	1200097	38
120114	66	520402	38	1193905	75	1200099	18
154718	23	520403	38	1193906	75	1200102	13
154719	23	520404	38	1193907	75	1200110	46
160432	20	520405	38	1193908	75	1200113	38
160433	21	520406	38	1193908	75	1200113	46
160655	21	520407	38	1193932	75	1200114	13
170043	21	520408	38	1194343	75	1200114	38
170054	20	520409	38	1194346	75	1200119	13
172074	23	520410	38	1194348	75	1200120	38
190538	20	520411	38	1194350	75	1200121	17
190542	20	520412	38	1194351	75	1200124	46
190543	20	520932	38	1194352	75	1200125	32
190545	22	520935	23	1194354	77	1200125	46
190549	20	520979	38	1194355	77	1200127	46
190679	23	520997	38	1194388	75	1439840	14
190735	20	521055	38	1195260	75	16008	9
190816	23	521057	38	1195426	54	162027	24
190836	23	521164	38	1197475	75	162150	18
318851	44	521247	38	1197480	51	162171	14
341001	23	569654	66	1198112	73	162171	14
341299	23	569655	66	1198113	73	1627004	5
350087	70	603222	67	1198240	73	1627005	5
350218	44	603225	66	1199945	51	1627007	9
350536	44	603230	69	1200095	47	1627008	9
350547	44	603231	68	1200096	66	1627009	2
350550	44	604476	67	1200100	47	1627009	2
350561	44	604773	67	1200101	66	1627011	11
350689	44	607847	70	1200105	66	1627012	12
350690	44	608689	67	1200106	47	1627013	12
350851	44	608690	67	1200119	66	1627014	11
350867	43	608691	67	1200120	47	1627015	4
455830	44	608692	67	1200121	46	1627016	4
480427	22	608693	68	1200122	46	1627016	4
480435	22	608694	68	1200125	47	1627016	4
480698	43	608695	68	1200128	47	1627021	9
480699	43	608696	68	1200129	66	1627021	9
480700	43	608697	67	1217080	22	1627022	8
480701	43	608698	68	1627139	26	1627022	9
480702	43	608700	68	1627714	47	1627024	6
480703	43	608701	69	1627714	47	1627024	6
480704	43	608702	69	1627716	47	1627024	6
480705	43	608703	69	1627717	47	1627025	8
480706	43	608704	69	1627725	47	1627025	8
480707	43	608789	69	1627734	47	1627025	8
480708	43	608800	70	1627735	47	1627027	24
480709	43	608801	70	1627737	47	1627030	14
480710	43	608802	70	1627738	47	1627030	14
480711	43	608803	70	1627746	47	1627031	17
480763	43	640586	43	1627751	47	1627032	15
480764	43						

11

Part Number Index

SECTION 11

Part Number Index

Base Part No.	Page	Base Part No.	Page	Base Part No.	Page	Base Part No.	Page
1627032	15	1627133	8, 42	1627723	46	1659298	26
1627032	15	1627133	8, 42	1659192	3	1659299	26
1627037	26	1627133	42	1659192	3	1659300	26
1627038	14	1627133	42	1659193	9	1659301	26
1627039	26	1627134	7	1659206	15	1659302	26
1627040	15	1627134	7	1659207	9	1659303	26
1627040	15	1627134	7	1659211	8	1659304	26
1627040	17	1627136	2	1659217	9	1659305	26
1627041	15	1627140	26	1659218	48	1659318	11
1627041	15	1627146	24	1659219	48	1659321	11
1627042	19	1627146	24	1659220	48	1659323	16
1627047	10	1627147	11	1659221	48	1659324	16
1627047	10	1627148	11	1659222	48	1659325	16
1627047	10	1627154	6, 42	1659223	48	1659326	16
1627048	9	1627154	6, 42	1659225	19	1659327	16
1627050	9	1627154	42	1659226	19	1659328	16
1627051	9	1627154	42	1659227	19	1659329	16
1627055	4	1627161	6, 42	1659228	30	1659330	16
1627056	7	1627161	6, 42	1659229	30	1659331	16
1627056	7	1627161	42	1659230	30	1659332	16
1627057	7	1627161	42	1659231	30	1659333	16
1627057	7	1627162	5	1659232	30	1659334	16
1627057	7	1627162	12	1659233	30	1659335	16
1627058	7	1627167	14	1659237	2	1659336	16
1627058	7	1627169	14	1659238	2	1659337	16
1627058	7	1627169	14	1659239	2	1659338	16
1627059	7	1627170	14	1659240	2	1659339	16
1627064	9	1627170	14	1659241	3	1659340	16
1627065	9	1627170	14	1659242	3	1659341	16
1627067	9	1627173	17	1659243	3	1659342	16
1627068	11	1627183	24	1659244	3	1659343	16
1627069	12	1627183	24	1659245	4	1659344	16
1627071	11	1627186	15	1659246	5	1659346	16
1627079	3	1627187	14	1659247	26	1659347	16
1627080	3	1627187	14	1659248	8	1659348	16
1627081	3	1627187	14	1659249	8	1659349	16
1627086	5	1627191	10	1659250	6, 42	1659350	16
1627087	4	1627192	9	1659251	7	1659351	16
1627087	4	1627192	9	1659252	7	1659352	16
1627095	6, 42	1627194	7	1659253	7	1659365	16
1627099	4	1627200	42	1659254	7	1659365	16
1627099	4	1627200	42	1659256	7	1659365	16
1627099	4	1627202	42	1659259	28	1659366	16
1627100	6	1627202	42	1659259	28	1659367	17
1627100	6	1627202	42	1659260	28	1659368	17
1627101	6	1627334	8	1659260	28	1659369	17
1627101	6	1627335	19	1659262	28	1659370	17
1627102	6	1627665	46	1659262	28	1659372	17
1627102	6	1627668	46	1659268	24	1659376	18
1627102	6	1627671	46	1659268	24	1659381	30
1627107	26	1627693	46	1659272	31	1659382	28
1627108	24	1627694	46	1659272	31	1659383	28
1627108	24	1627696	46	1659273	31	1659384	29
1627110	24	1627697	46	1659273	31	1659385	29
1627110	24	1627698	46	1659274	31	1659386	29
1627110	24	1627700	46	1659278	19	1659387	28
1627110	24	1627700	46	1659281	11	1659388	28
1627111	26	1627701	46	1659282	11	1659389	28
1627122	11	1627701	46	1659283	11	1659390	28
1627123	11	1627702	46	1659285	12	1659391	9
1627124	12	1627703	46	1659286	25	1659396	4
1627125	12	1627704	46	1659286	25	1659398	5
1627127	12	1627704	46	1659287	25	1659401	14
1627128	11	1627705	46	1659287	25	1659402	48
1627130	25	1627706	46	1659288	10	1659403	48
1627130	25	1627709	46	1659290	29	1659404	48
1627131	25	1627709	46	1659291	29	1659405	31
1627131	25	1627710	46	1659292	29	1659406	31
1627132	25	1627711	46	1659293	29	1659407	31
1627132	25	1627712	46	1659294	29	1659408	31
1627133	8, 42	1627713	46	1659295	29	1659409	31
1627133	8, 42	1627722	46	1659297	30	1659410	31

Part Number Index

Base Part No.	Page	Base Part No.	Page	Base Part No.	Page	Base Part No.	Page
1659411	31	1659527	18	350818	37	52365	36
1659454	31	1659528	18	350820	37	627121	11
1659454	31	1659529	18	500000	65	627121	11
1659455	31	1659530	18	500001	65	1200122	46
1659456	32	1659531	18	500002	65	1200321	46
1659457	32	1659532	34	500004	65	1200106	47
1659458	32	1659533	34	500005	65	1200128	47
1659459	32	1659534	34	500013	65	1200120	47
1659460	32	1659535	34	500015	65	1200121	46
1659461	32	1659536	34	500017	65	1200125	47
1659462	32	1659537	34	500023	65	1200100	47
1659463	32	1659538	34	500024	65		
1659464	32	1659539	34	500030	65		
1659465	32	1659540	34	500031	65		
1659466	32	1659541	34	500035	65		
1659467	32	1659541	34	500036	65		
1659468	32	1659542	34	500037	65		
1659470	32	1659544	35	520013	37		
1659471	32	1659545	35	520080	36		
1659472	32	1659546	35	520081	36		
1659473	32	1659547	35	520084	36		
1659474	32	1659548	35	520102	37		
1659475	32	1659549	35	520106	37		
1659476	32	1659550	35	520116	37		
1659477	32	1659551	35	520117	37		
1659478	32	1659552	35	520124	36		
1659479	32	1659553	35	520125	36		
1659480	32	1659554	35	520128	37		
1659481	32	1659555	35	520129	37		
1659482	32	1659556	35	520132	37		
1659483	32	165973	11	520133	37		
1659484	32	1661035	42	520140	37		
1659485	32	1661590	15	520141	37		
1659486	33	1661590	19, 41	520150	36		
1659487	33	1661590	7	520151	36		
1659488	31	1661590	41	520181	36		
1659489	31	1661590	19	520182	36		
1659490	31	1661590	26	520183	37		
1659491	33	1661590	46	520184	37		
1659492	33	1661590	46	520193	36		
1659493	33	1661590	46	520194	36		
1659494	33	1661590	46	520263	37		
1659495	33	1661590	46	520264	37		
1659496	33	1661591	46	520272	36		
1659497	33	1661591	46	520274	36		
1659498	33	1661591	46	520275	36		
1659499	33	1661594	38	520276	36		
1659499	33	1661610	26	520306	36		
1659500	33	1661611	12	520310	36		
1659502	33	1661612	12	520334	36		
1659503	33	1661613	42	520335	36		
1659504	33	1661614	42	520336	36		
1659505	33	1661615	41	520336	36		
1659506	33	1661615	41	520337	36		
1659507	33	1661616	41	520338	36		
1659508	33	1661616	41	520339	36		
1659509	33	1661616	41	520340	36		
1659510	33	1661617	41	520370	36		
1659511	33	166190	14	520447	37		
1659512	33	167023	8	520448	37		
1659513	33	167049	8	520856	37		
1659514	33	167695	46	520997	36		
1659515	33	279465	19, 41	521097	37		
1659516	33	279465	38	521102	37		
1659517	33	279465	6	521104	37		
1659518	33	279465	19	521142	37		
1659519	33	279506	6	521144	37		
1659522	18	279506	42	521164	36		
1659523	18	279509	7	521247	36		
1659524	18	279524	15	521308	36		
1659525	18	350815	36	521406	36		
1659526	18	350816	36	52261	36		

11

Part Number Index

SECTION 11

