

Circular (CPC) Connectors for Commercial Signal and Power Applications (Continued)

Connector Series and Types



Series 3 — Power Contacts

Series 3 connectors accept Type XII power contacts which can carry up to 25 Amps per contact. These contacts will accommodate a wire size range of 16 to

10 AWG [1.4 to 5 mm²]. Two connector sizes are available in both standard and reverse sex connector arrangements **3 and 7 positions**.



Series 4 — Combination Size 16 and Power Contacts

Series 4 connectors accept Size 16 Multimate and Type XII power contacts, combining the signal and coaxial circuit capabilities of Series 1 connectors with the

power circuit capabilities of Series 3 connectors. Available in two connector sizes offering power mixing combinations totaling **16 and 22 positions**.



Series 5 — Power Contacts .125 POWERBAND

Series 5 connectors combine the revolutionary performance of the new POWERBAND Contact, high current contact in configurations similar to the Series 3 connectors. POWERBAND contacts offer the electrical perform-

ance of the best Mil Spec Size 8 screw-machined contacts with the economy and productivity of strip-fed, precision formed contacts.

Series 5 connectors are environmentally sealable to meet IEC IP 65 and IP 67 specifications.

Rated at 600 VAC or VDC, 45 Amps maximum in a single contact, the connectors are available in free-hanging and panel-mount applications — **one connector configuration containing three .125 POWERBAND contacts**.



Series 6 — Combination, Size 16 and .125 POWERBAND Contacts

Series 6 combines the high current and environmental sealing capability of Series 5, POWERBAND contacts, and the reliability of signal carrying, low current Type III+ contacts. This

combination of power and signal contacts is offered in **one connector configuration containing two .125 POWERBAND contacts and eight Type III+ signal pin and socket contacts**.

For more information, request Catalog 82021.

Circular (CPC) Connectors for Commercial Signal and Power Applications (Continued)

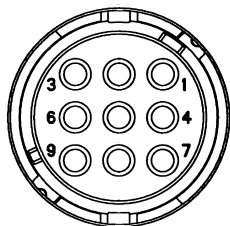
Connector Series and Types (Continued)



Metal-Shell, Circular Plastic Connectors (Series 3 and 4)

Metal-Shell CPC connectors consist of a black thermo-plastic insert in a nickel-plated, zinc alloy shell. These connectors

are currently available in **shell sizes 14, 22 and 28, and in two basic configurations consisting of plugs and square flange receptacles.**



Miniature CPC Connectors

These compact connectors accept existing Mini-Universal MATE-N-LOK pin and socket contacts, 30-18 AWG [.05-.8 mm²].

Two shell sizes (8 or 11) are available, accommodating **from 1 to 4 and 5 to 9 positions.**

Featuring high contact density and IP67 sealing, these durable connectors are well suited for many wire-to-wire, wire-to-board, and wire-to-panel applications.

For more information,
request Catalog 82021.

High Current Products (LOUVERTAC Contacts)

Product Facts

- Pins and sockets have low insertion force
- High current ratings with very low resistance
- All plated products are gold or silver plated
- LOUVERTAC bands have a temperature range from -196°C to $+200^{\circ}\text{C}$ available
- Formed bands are available for up to 1.250 [31.75] pin diameter

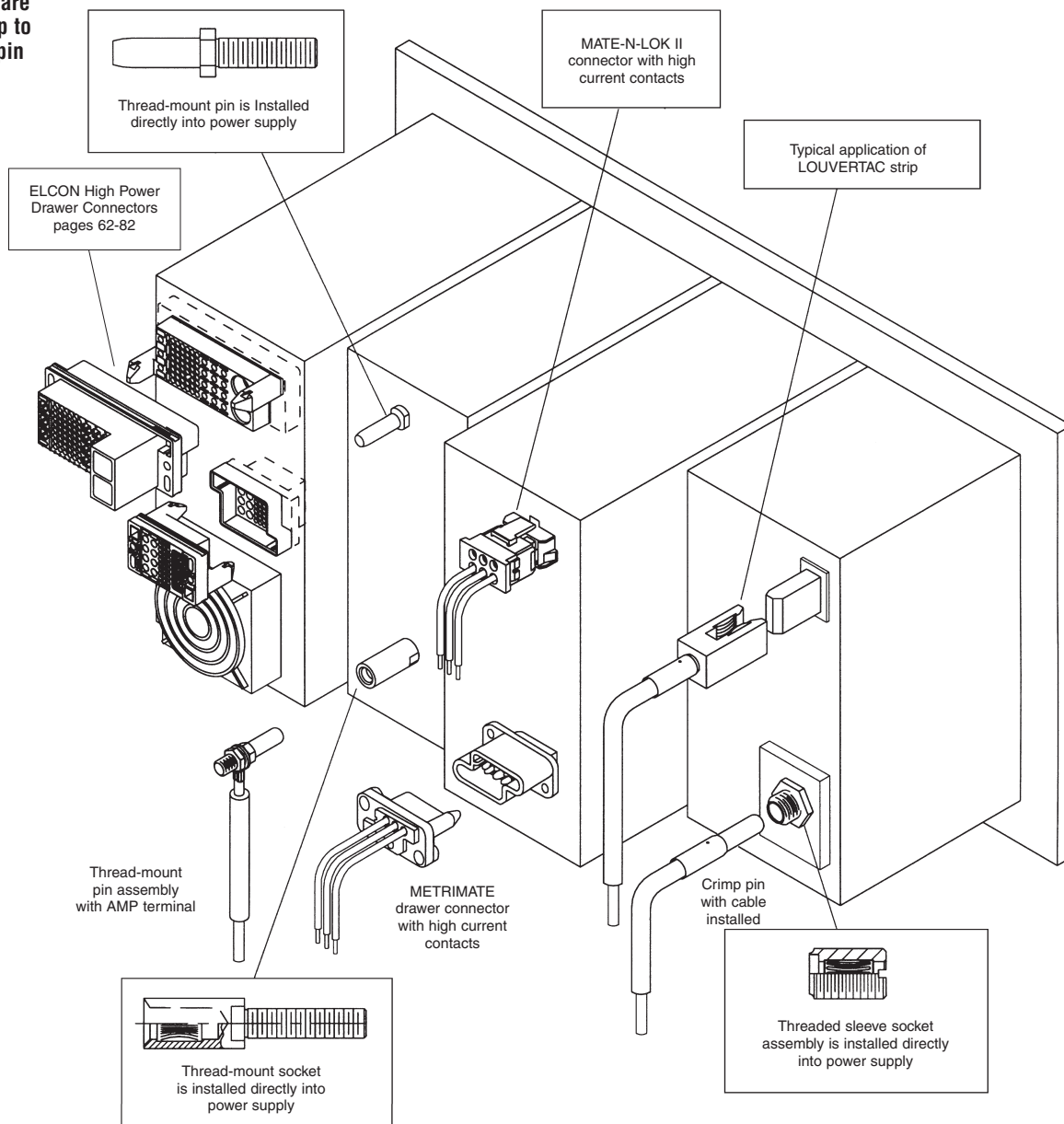
The transfer of high current with manageable insertion and withdrawal forces has always presented a challenge to the connector industry.

LOUVERTAC bands provide a unique means of transferring high amperage with a resultant space and weight savings. Tyco Electronics

offers a wide range of pin and socket sizes for your applications. Strip and formed LOUVERTAC bands are also offered for customer use in their own contact design. The wide variety of flat and formed male and female bands provide the ability to design electrical connections more

inexpensively and quickly. LOUVERTAC products are your high current applications solution.

The variety of pins and sockets available from Tyco Electronics provide a quick and simple solution to most high current applications.



High Current Products (LOUVERTAC Contacts) (Continued)

Thread-Mount Sockets

These sockets are designed for easy installation and removal. The large variety of sizes have ratings from 30 continuous Amps and can be mated with Thread-Mount Pins and Crimp Pins.

Material

Body — Brass

LOUVERTAC Band — Beryllium
Copper

Finish

Body — Silver

LOUVERTAC Band —
See Table



Mating Pin Dia.	Part Number	Thread	Contin. Current (Amp)	Voltage Drop (mV)	Dimensions						LOUVERTAC Band Plating
					A Dia.	B Dia.	C	D	E Ref.	F	
2 mm	192059-1	M3x0.5	30	12	.080 2.0	.220 5.6	.670 17.0	1.42 36.1	.630 16	.790 20.1	Silver
4 mm	192129-1	10-32	60	10	.160 4.1	.280 7.1	.790 20.1	2.00 50.8	1.00 25.4	1.00 25.4	Gold
6 mm	192211-1	1/4-28	100	11	.240 6.1	.410 10.4	.800 20.3	2.09 53.1	1.00 25.4	1.09 27.7	Gold
8 mm	192271-1	5/16-24	185	12	.320 8.1	.560 14.2	1.40 35.6	3.07 78	1.42 36.0	1.65 41.9	Silver

Thread-Mount Pins

These pins are designed for thread-mount. The large variety of sizes have ratings from 30 continuous Amps and are designed to be mated with Thread-Mount Sockets, Threaded Sleeve Sockets and Crimp Sockets.



Material — Brass

Finish — Silver

Pin Dia.	Part Number	Thread	Contin. Current (Amp)	Dimensions				
				A Dia.	B	C	D	E Ref.
2 mm	192085-1	M3x0.5	30	.080 2.0	.16 4.1	.65 16.5	1.40 35.6	.63 15.0
4 mm	192161-1	10-32	60	.160 4.1	.25 6.4	.77 19.6	1.91 48.5	.99 25.1
6 mm	192244-1	1/4-28	100	.240 6.1	.31 7.9	.77 19.6	2.03 51.6	1.11 25.2
8 mm	192293-1	5/16-24	185	.320 8.1	.44 11.2	1.30 33.0	2.95 74.9	1.47 37.3

Note: All part numbers are RoHS compliant.

High Current Products (LOUVERTAC Contacts) (Continued)

Threaded Sleeve Sockets

The Threaded Sleeve Socket Assembly is designed for High Current in a restricted space. The Sleeve can be screwed directly into a threaded bus bar or it may be inserted into a drilled hole in the bus bar with tightened nuts on each side of the bus bar. A Crimp Pin or Thread-Mount Pin can be attached to a cable for the completed connector.



Material

Body — Brass

LOUVERTAC Band —
Beryllium Copper

Finish

Body — Silver

LOUVERTAC Band —
See Table

Mating Pin Dia.	Part Number	Thread	Contin. Current (Amp)	Voltage Drop (mV)	Dimensions				LOUVERTAC Band Plating
					A Dia.	B	C	D	
2 mm	1-192447-0	5/16-32	30	12	.090 2.3	.650 16.5	.060 1.5	.060 1.5	Silver
4 mm	192447-8	5/16-32	60	10	.160 4.1	.770 19.6	.060 1.5	.060 1.5	Gold
6 mm	192447-2	1/2-20	100	11	.240 6.1	.770 19.6	.078 2.0	.078 2.0	Gold
8 mm	1-192447-8	9/16-18	185	12	.320 8.1	1.35 34.3	.100 2.5	.100 2.5	Silver
12 mm	1-192447-2	3/4-16 UNF -2A	290	13	.479 12.2	1.34 34.0	.130 3.3	.130 3.3	Silver



Note: All part numbers are RoHS compliant.

High Current Products (LOUVERTAC Contacts) (Continued)

Crimp Pins

Crimp Pins feature a mechanism for locking the pin into a housing designed by the customer. The 2 mm and 4 mm pins are crimped with a Daniels Hand Crimp Tool. Pin sizes from 6 mm to 8 mm may be crimped with the indicated tooling and a DYNA-CRIMP 69120-1 electric-hydraulic power unit. The large variety of sizes have ratings from 24 continuous Amps and can be mated with Thread-Mount Socket Assemblies, Threaded Sleeve Socket Assemblies or Crimp Sockets.



Material

Body — Copper Alloy

Retention Spring — Stainless Steel
or Beryllium Copper

Finish

Body — Silver

Pin Dia.	Part Number	Contin. Current (Amp)	Voltage Drop (mV)	Dimensions							Use with AWG	Tooling Part Numbers		
				A	B Dia.	C Dia.	D	E	F	G Dia.		Crimp Die	Crimp Head	Extraction Tool
2 mm	193837-1	30	12	1.40 35.6	.225 5.72	.100 2.54	.640 16.3	.211 5.36	.050 1.27	.080 2.0	12-14	M310	TP1019	318813-1
4 mm	193837-2	44	8	1.53 38.9	.300 7.6	.145 3.7	.750 19.1	.211 5.36	.050 1.27	.160 4.0	10	M310	TP1020	679916-1
	193837-3	60	8	1.53 38.9	.300 7.6	.181 4.60	.750 19.1	.211 5.36	.050 1.27	.160 4.0	8	M310	TP1020	679916-1
6 mm	193837-4	76	9	1.64 41.7	.410 10.4	.235 5.97	.760 19.3	.211 5.36	.050 1.27	.240 6.0	6	69133-1	69099	679917-1
	193837-5	100	9	1.73 43.9	.410 10.4	.290 7.37	.760 19.3	.211 5.36	.050 1.27	.240 6.0	4	69134-2	69099	679917-1
8 mm	193837-6	135	10	2.50 63.5	.570 14.5	.390 9.91	1.30 33.0	.211 5.36	.050 1.27	.320 8.0	2	46765-3	69099	679918-1
	193837-7	185	12	2.63 66.8	.570 14.5	.487 12.37	1.30 33.0	.211 5.36	.050 1.27	.320 8.0	1/0	46766-2	69099	679918-1

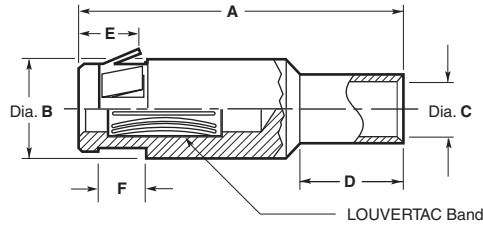
Notes: 1. Additional information on AMPPOWER terminal hydraulic crimping is available in Catalog 82025.
2. Application Specification — 114-16022

Note: All part numbers are RoHS compliant.

High Current Products (LOUVERTAC Contacts) (Continued)

Crimp Sockets

Crimp Sockets feature a mechanism for locking the socket into a housing designed by the customer. A Tyco Electronics extraction tool is offered to remove the contact. The 2 mm and 4 mm sockets are crimped with a Daniels Hand Crimp Tool. Socket sizes from 6 mm to 8 mm may be crimped with the indicated tooling and a DYNA-CRIMP 69120-1 electric-hydraulic power unit. The large variety of sizes have ratings from 24 continuous Amps and can be mated with Thread-Mount Pins or Crimp Pins.



Material

Body — Copper Alloy

LOUVERTAC Band — Beryllium Copper

Retention Spring — Stainless Steel or Beryllium Copper

Finish

Body — Silver

LOUVERTAC Band — Silver

Mating Pin Dia.	Part Number	Contin. Current (Amp)	Voltage Drop (mV)	Dimensions						Use with AWG	Tooling Part Numbers		
				A	B Dia.	C Dia.	D	E	F		Crimp Die	Crimp Head	Extraction Tool
2 mm	193673-1	24	10	1.13 28.7	.230 5.8	.100 2.54	.420 10.7	.211 5.36	.209 5.31	14	M310	TP1021	318813-1
	193673-1	30	12	1.13 28.7	.230 5.8	.100 2.54	.420 10.7	.211 5.36	.209 5.31	12	M310	TP1021	318813-1
4 mm	193673-2	44	8	1.31 33.3	.300 7.6	.145 3.68	.400 10.2	.211 5.36	.209 5.31	10	M310	TP1022	679916-1
	193673-3	60	8	1.31 33.3	.300 7.6	.181 4.60	.410 10.4	.211 5.36	.209 5.31	8	M310	TP1022	679916-1
6 mm	193673-4	76	9	1.42 36.1	.410 10.4	.235 5.97	.460 11.7	.211 5.36	.209 5.31	6	69133-1	69099	679917-1
	193673-5	100	9	1.48 37.6	.410 10.4	.290 7.37	.530 13.5	.211 5.36	.209 5.31	4	69134-2	69099	679917-1
8 mm	193673-6	135	10	2.26 57.4	.570 14.5	.390 9.91	.640 16.3	.211 5.36	.209 5.31	2	46765-3	69099	679918-1
	193673-7	185	12	2.45 62.2	.570 14.5	.487 12.37	—	.211 5.36	.209 5.31	1/0	46766-2	69099	679918-1
12 mm	193673-8*	290	13	2.51 63.7	.795 20.19	.541 13.74	.930 23.62	—	—	2/0	46767-2	69099	—
20 mm	1-193673-2*	480	11	3.17 80.5	1.072 27.23	.721 18.31	1.24 31.50	—	—	250 MCM	46751-2	69099	—

* Socket contact uses retention ring (not supplied) for locking contact in housing. See Application Specification 114-16022 for details.

Notes: 1. Additional information on AMPPOWER terminal hydraulic crimping is available in Catalog 82025.

2. Application Specification — 114-16022

Note: All part numbers are RoHS compliant.

High Current Products (LOUVERTAC Contacts) (Continued)

Thread-Mount Fork

The Thread-Mount Fork was developed to mount onto a plate or bus bar designed and fabricated by the customer. The Fork is rated at 84 Amps (Upper Tolerance Limit) and accepts a .087 thick blade or circuit board. The anti-rotation pin is in place to help prevent the Fork from rotating while tightening the screw.

Material

Fork — Zinc Al Alloy

LOUVERTAC Bands — Copper Alloy

Screw — Steel

Finish

Fork — Silver

LOUVERTAC Bands — Silver

Screw — Zinc



Part Number 194257-1

Right-Angle Thread-Mount Fork



Part Number 194305-1

Material

Fork — Zinc Al Alloy

LOUVERTAC Bands — Copper Alloy

Spring Pin — Stainless Steel

Finish

Fork — Silver

LOUVERTAC Bands — Silver

Note: All part numbers are RoHS compliant.

LOUVERTAC Strip, Torsional Louver Type

The Torsional Louver Type Band was designed as an electrical interface that allows the transfer of high current and a more generous tolerance between mating surfaces. A strip can be sized with scissors in an on-site installation. They are available for use in flat and circular applications. A male band is used on the outside diameter of a pin. The female band is used on the inside diameter of a socket.

Material — Beryllium Copper

Finish — See Tables

LAO .092 [2.27] Louver Height

Tooth Angle — 15°
Minimum Diameter — 1.75 inches



Part Number	Application	Material Thickness	Suggested Current Limit per inch	Finish
192000-2	Flat or Female	.006 .15	150	Silver
192000-9	Flat or Female	.010 .25	250	Silver
192001-4	Flat or Male	.006 .15	150	Silver

LAOG Louver Height — See Table

Tooth Angle — 45°
Minimum Diameter — 1.75 inches



Part Number	Application	Material Thickness	Suggested Current Limit per inch	Louver Height	Finish
192002-1	Flat or Female	.006 .15	300	.105 2.67	Unplated
192002-2	Flat or Female	.006 .15	300	.105 2.67	Silver
192002-3	Flat or Female	.010 .25	500	.110 2.79	Unplated

LAIA .050 [1.27] Louver Height

Tooth Angle — See Table
Minimum Diameter — 1½ inches



Part Number	Application	Material Thickness	Suggested Current Limit per inch	Tooth Angle	Finish
192004-4	Flat or Female	.004 .10	150	15°	Silver
192004-6	Flat or Female	.004 .10	150	45°	Silver
192004-8	Flat or Female	.006 .15	250	15°	Silver
1-192004-1	Flat or Female	.006 .15	250	15°	Gold
1-192004-4	Flat or Female	.006 .15	250	45°	Silver
192007-7	Flat or Male	.006 .15	250	15°	Silver
192008-1	Flat or Male	.004 .10	150	45°	Silver

Notes: 1. Product will be sold by the foot except where length is specified.
2. Suggested current limits are application dependent.
3. Additional sizes are available upon request.

Note: All part numbers are RoHS compliant.

High Current Products (LOUVERTAC Contacts) (Continued)

LOUVERTAC Strip, Bridge Louver Type

The Bridge Louver Type Band was designed to transfer high currents in very small spaces. A strip can be sized with scissors in an on-site installation. They are available for use in flat and circular applications. A male band is used on the outside diameter of a pin. The female band is used on the inside diameter of a socket.

Material—Beryllium Copper

LAIII .034 [.86] Louver Height

Minimum Diameter — 1 inch
Suggested Current Limit
Per Inch — 150 Amps
Material Thickness — .006 [.15]



Part Number	Application	Finish
192038-6	Female	Silver
192039-5	Male	Silver

LAIV .026 [.66] Louver Height

Minimum Diameter — 3/4 inch
Suggested Current Limit
Per Inch — 150 Amps
Material Thickness — See Table



Part Number	Application	Finish	Material Thickness
1-192041-2	Female	Silver	.006 .15
192042-5	Male	Silver	.006 .15
192048-2	Male	Gold	.004 .10

LAV .022 [.56] Louver Height

Minimum Diameter — 3/4 inch
Suggested Current Limit
Per Inch — 120 Amps
Material Thickness — See Table



Part Number	Application	Finish	Material Thickness
1-192044-9	Female	Silver	.005 .13
192045-5	Male	Silver	.005 .13
192045-2	Male	Gold	.004 .10
1-192045-2	Male	Gold	.004 .10

- Notes:** 1. Product will be sold by the foot except where length is specified.
2. Suggested current limits are application dependent.
3. Additional sizes are available upon request.

Note: All part numbers are RoHS compliant.

High Current Products (LOUVERTAC Contacts) (Continued)

Preformed Female LOUVERTAC Bands

Female Torsional Formed Type

LA1A/LA1B .050 [1.27] Louver Height

Material—Beryllium Copper

Finish—See Table

Tooth Angle—See Table

LOUVERTAC Bands can be manufactured as preformed diameters. This will allow the insertion of the band into a socket.

The diameter indicated is the mating pin diameter that will be inserted into the socket assembly.

Consult Product Engineering for mounting details.



Part Number	Mating Pin Dia.	Material Thickness	Suggested Current Limit (A)	Finish	Tooth Angle	Band Type
4-192013-3	.312 [7.92]	.004 [.10]	150	Silver	15°	LA1A
4-192013-5	.312 [7.92]	.006 [.15]	250	Silver	15°	LA1A
5-192013-1	.355 [9.01]	.006 [.15]	275	Gold	15°	LA1A
5-192013-4	.375 [9.53]	.006 [.15]	300	Silver	15°	LA1A
5-192013-5	.394 [10.00]	.006 [.15]	325	Silver	15°	LA1A
5-192013-8	.434 [11.02]	.006 [.15]	350	Gold	15°	LA1A
5-192013-9	.437 [11.10]	.006 [.15]	350	Silver	15°	LA1A
6-192013-7	.472 [11.99]	.006 [.15]	375	Silver	15°	LA1A
6-192013-9	.472 [11.99]	.008 [.20]	375	Silver	15°	LA1A
7-192013-1	.500 [12.70]	.006 [.15]	400	Silver	15°	LA1A
7-192013-6	.551 [14.00]	.006 [.15]	450	Silver	15°	LA1A
8-192013-2	.625 [15.88]	.006 [.15]	500	Silver	15°	LA1A
8-192013-6	.625 [15.88]	.008 [.20]	475	Silver	15°	LA1A
8-192013-9	.685 [17.40]	.006 [.15]	550	Silver	15°	LA1A
9-192013-6	.750 [19.05]	.006 [.15]	600	Silver	15°	LA1A
192033-3	.750 [19.05]	.008 [.20]	600	Silver	15°	LA1A
1-192033-9	.875 [22.22]	.006 [.15]	675	Gold	15°	LA1A
2-192033-0	.875 [22.22]	.006 [.15]	700	Silver	15°	LA1A
2-192033-6	1.000 [25.40]	.006 [.15]	775	Silver	15°	LA1A
3-192033-4	1.250 [31.75]	.006 [.15]	975	Silver	15°	LA1A
5-192033-2	1.000 [25.40]	.008 [.20]	800	Silver	15°	LA1A
3-192013-8	1.187 [30.10]	.006 [.15]	950	Silver	45°	LA1B
5-192033-0	.812 [20.62]	.008 [.20]	625	Silver	45°	LA1B

Notes: 1. Suggested current limits are application dependent.
2. Additional sizes are available upon request.

Note: All part numbers are RoHS compliant.

High Current Products (LOUVERTAC Contacts) (Continued)

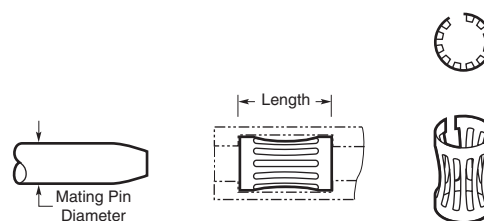
Preformed Female LOUVERTAC Bands

(Continued)

Female Bridge Formed Type LAIII through LAVI

Material — Beryllium Copper

Finish — See Table



Part Number	Mating Pin Dia.	Length	Material Thickness	Suggested Current Limit (A)	Finish	Band Type
1-192038-9	.125 [3.18]	.47 [11.9]	.004 [.10]	40	Nickel	LAIII
2-192038-8	.197 [5.00]	.47 [11.9]	.006 [.15]	90	Gold	LAIII
3-192038-7	.236 [6.00]	.47 [11.9]	.006 [.15]	100	Gold	LAIII
4-192038-0	.236 [6.00]	.47 [11.9]	.008 [.20]	120	Gold	LAIII
4-192038-1	.236 [6.00]	.47 [11.9]	.008 [.20]	120	Gold	LAIII
4-192038-8	.250 [6.35]	.47 [11.9]	.006 [.15]	110	Silver	LAIII
4-192038-9	.250 [6.35]	.47 [11.9]	.006 [.15]	110	Gold	LAIII
5-192038-4	.250 [6.35]	.47 [11.9]	.008 [.20]	125	Gold	LAIII
6-192038-0	.280 [7.11]	.47 [11.9]	.008 [.20]	165	Silver	LAIII
6-192038-1	.280 [7.11]	.47 [11.9]	.008 [.20]	125	Gold	LAIII
6-192038-2	.250 [6.35]	.47 [11.9]	.006 [.15]	125	Unplated	LAIII
6-192038-5	.315 [8.00]	.47 [11.9]	.008 [.20]	185	Silver	LAIII
6-192038-6	.315 [8.00]	.47 [11.9]	.008 [.20]	185	Gold	LAIII
7-192038-7	.394 [10.00]	.47 [11.9]	.008 [.20]	250	Silver	LAIII
8-192038-1	.437 [11.10]	.47 [11.9]	.008 [.20]	270	Silver	LAIII
8-192038-6	.472 [11.99]	.47 [11.9]	.008 [.20]	300	Silver	LAIII
9-192038-4	.500 [12.70]	.47 [11.9]	.008 [.20]	300	Tin	LAIII
192040-8	.375 [9.53]	.47 [11.9]	.008 [.20]	200	Gold	LAIII
2-192040-7	.250 [6.35]	.47 [11.9]	.006 [.15]	110	Gold	LAIII
2-192041-9	.025 [0.64]	.32 [8.13]	.005 [.13]	15	Gold	LAIV
4-192041-0	.062 [1.57]	.32 [8.13]	.006 [.15]	25	Silver	LAIV
4-192041-1	.062 [1.57]	.32 [8.13]	.006 [.15]	25	Gold	LAIV
4-192041-4	.080 [2.03]	.32 [8.13]	.006 [.15]	35	Gold	LAIV
5-192041-0	.093 [2.36]	.32 [8.13]	.005 [.13]	40	Gold	LAIV
5-192041-9	.100 [2.54]	.32 [8.13]	.006 [.15]	50	Gold	LAIV
6-192041-9	.125 [3.18]	.32 [8.13]	.006 [.15]	60	Gold	LAIV
7-192041-4	.157 [4.00]	.32 [8.13]	.006 [.15]	65	Gold	LAIV
7-192041-7	.157 [4.00]	.32 [8.13]	.006 [.15]	65	Silver	LAIV
7-192041-8	.157 [4.00]	.32 [8.13]	.006 [.15]	65	Gold	LAIV
8-192041-4	.157 [4.00]	.32 [8.13]	.008 [.20]	75	Gold	LAIV
8-192041-9	.173 [4.39]	.32 [8.13]	.006 [.15]	70	Gold	LAIV
192043-6	.218 [5.54]	.32 [8.13]	.006 [.15]	95	Silver	LAIV
1-192043-5	.254 [6.45]	.32 [8.13]	.006 [.15]	110	Silver	LAIV
1-192043-6	.250 [6.35]	.32 [8.13]	.006 [.15]	120	Gold	LAIV
2-192043-0	.280 [7.11]	.32 [8.13]	.006 [.15]	130	Gold	LAIV
2-192043-7	.315 [8.00]	.32 [8.13]	.006 [.15]	165	Silver	LAIV
4-192043-5	.375 [9.53]	.32 [8.13]	.006 [.15]	175	Gold	LAIV
5-192043-0	.375 [9.50]	.32 [8.13]	.007 [.18]	175	Tin	LAIV
6-192043-7	.602 [15.30]	.32 [8.13]	.006 [.15]	285	Gold	LAIV
7-192043-2	.125 [3.18]	.32 [8.13]	.006 [.15]	60	Silver	LAIV
9-192043-3	.157 [4.00]	.32 [8.13]	.006 [.15]	65	Silver	LAIV
9-192043-6	.725 [18.40]	.32 [8.13]	.006 [.15]	350	Silver	LAIV
4-192044-1	.030 [0.76]	.20 [5.10]	.005 [.13]	13	Gold	LAV
4-192044-2	.030 [0.76]	.20 [5.10]	.005 [.13]	11	Unplated	LAV
4-192044-4	.055 [1.40]	.20 [5.10]	.005 [.13]	20	Gold	LAV
4-192044-7	.060 [1.54]	.20 [5.10]	.004 [.10]	22	Gold	LAV
5-192044-6	.062 [1.57]	.20 [5.10]	.005 [.13]	25	Gold	LAV
5-192044-8	.065 [1.65]	.20 [5.10]	.005 [.13]	23	Unplated	LAV
6-192044-0	.080 [2.03]	.20 [5.10]	.004 [.10]	30	Silver	LAV
6-192044-4	.080 [2.03]	.20 [5.10]	.005 [.13]	30	Gold	LAV

Note: All part numbers are RoHS compliant.

Notes: 1. Suggested current limits are application dependent.
2. Additional sizes are available upon request.

High Current Products (LOUVERTAC Contacts) (Continued)

Preformed Female LOUVERTAC Bands

(Continued)

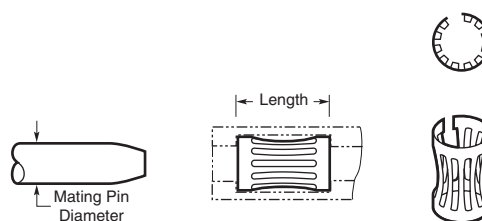
Female Bridge Formed Type

LAVI through LAVI

(Continued)

Material — Beryllium Copper

Finish — See Table



Part Number	Mating Pin Dia.	Length	Material Thickness	Suggested Current Limit (A)	Finish	Band Type
6-192044-6	.080 [2.03]	.20 [5.10]	.008 [.20]	30	Gold	LAV
7-192044-1	.093 [2.36]	.20 [5.10]	.005 [.13]	35	Gold	LAV
8-192044-1	.125 [3.18]	.20 [5.10]	.004 [.10]	45	Gold	LAV
8-192044-3	.125 [3.18]	.20 [5.10]	.005 [.13]	45	Silver	LAV
8-192044-4	.125 [3.18]	.20 [5.10]	.005 [.13]	45	Gold	LAV
8-192044-7	.125 [3.18]	.20 [5.10]	.005 [.13]	45	Unplated	LAV
192046-6	.172 [4.40]	.20 [5.10]	.006 [.15]	65	Gold	LAV
1-192046-6	.225 [5.70]	.20 [5.10]	.006 [.15]	85	Gold	LAV
1-192046-9	.250 [6.35]	.20 [5.10]	.006 [.15]	110	Gold	LAV
2-192046-0	.250 [6.30]	.20 [5.10]	.006 [.15]	95	Tin	LAV
3-192046-0	.400 [10.2]	.20 [5.10]	.005 [.13]	150	Gold	LAV
5-192046-0	.750 [19.0]	.20 [5.10]	.005 [.13]	285	Gold	LAV
5-192046-9	.134 [3.40]	.20 [5.10]	.006 [.15]	50	Gold	LAV
1-192047-4	.040 [1.00]	.10 [2.54]	.004 [.10]	15	Gold	LAVI
1-192047-9	.062 [1.60]	.10 [2.54]	.004 [.10]	22	Gold	LAVI
3-192047-7	.125 [3.20]	.10 [2.54]	.004 [.10]	45	Gold	LAVI
5-192047-1	.256 [6.50]	.10 [2.54]	.004 [.10]	95	Gold	LAVI
5-192047-3	.272 [6.90]	.10 [2.54]	.004 [.10]	65	Gold	LAVI
7-192047-5	.256 [6.50]	.10 [2.54]	.004 [.10]	95	Unplated	LAVI

Note: All part numbers are RoHS compliant.

Notes: 1. Suggested current limits are application dependent.
2. Additional sizes are available upon request.

High Current Products (LOUVERTAC Contacts) (Continued)

Preformed Male LOUVERTAC Bands

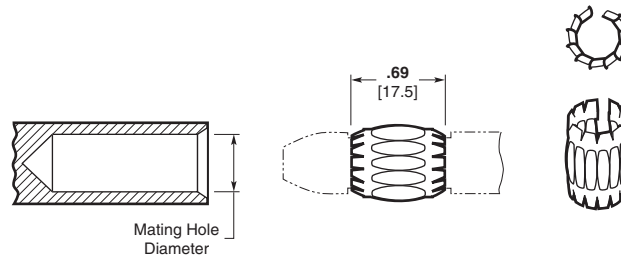
Male Torsional Formed Type

LA1AS/LA1BS

Material—Beryllium Copper

Finish—See Table

Tooth Angle—See Table



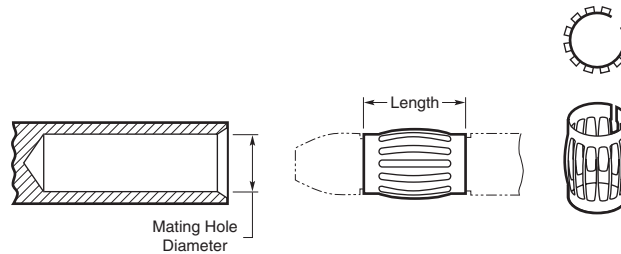
LOUVERTAC Bands can be formed into a "male" shape for use on a pin. Selection begins with the amperage requirement and then the mating hole diameter. Consult Product Engineering for mounting details.

Part Number	Mating Hole Dia.	Material Thickness	Suggested Current Limit (A)	Finish	Tooth Angle	Band Type
192007-9	.312 [7.92]	.006 [.15]	200	Silver	15°	LA1AS
1-192007-9	.620 [15.7]	.006 [.15]	425	Silver	15°	LA1AS
2-192007-5	.750 [19.0]	.008 [.20]	550	Silver	15°	LA1AS
3-192007-1	1.000 [25.4]	.006 [.15]	750	Silver	15°	LA1AS
192008-6	.500 [12.7]	.006 [.15]	350	Silver	45°	LA1BS
1-192008-3	.750 [19.0]	.008 [.20]	550	Silver	45°	LA1BS
1-192008-5	.781 [19.8]	.006 [.15]	575	Silver	45°	LA1BS
2-192008-1	.875 [22.22]	.008 [.20]	650	Silver	45°	LA1BS
3-192008-4	1.197 [30.4]	.008 [.20]	900	Silver	45°	LA1BS
4-192008-2	1.450 [36.8]	.006 [.15]	1100	Silver	45°	LA1BS

Male Bridge Formed Type LAIIS through LAVIS

Material—Beryllium Copper

Finish—See Table



Part Number	Mating Hole Dia.	Length	Material Thickness	Suggested Current Limit (A)	Finish	Band Type
1-192039-7	.157 [4.0]	.470 [11.9]	.008 [.20]	75	Gold	LAIIS
2-192039-1	.250 [6.35]	.470 [11.9]	.008 [.20]	130	Silver	LAIIS
2-192039-3	.248 [6.3]	.470 [11.9]	.008 [.20]	130	Silver	LAIIS
2-192039-7	.311 [7.9]	.470 [11.9]	.008 [.20]	175	Unplated	LAIIS
2-192039-9	.311 [7.9]	.470 [11.9]	.008 [.20]	175	Silver	LAIIS
3-192039-0	.311 [7.9]	.470 [11.9]	.008 [.20]	175	Gold	LAIIS
5-192039-3	.236 [6.0]	.470 [11.9]	.008 [.20]	120	Nickel	LAIIS
5-192039-4	.157 [4.0]	.470 [11.9]	.008 [.20]	75	Nickel	LAIIS
1-192042-5	.080 [2.0]	.320 [8.13]	.005 [.12]	30	Nickel	LAIVS
2-192042-5	.157 [4.0]	.320 [8.13]	.006 [.15]	65	Unplated	LAIVS
2-192042-8	.157 [3.99]	.320 [8.13]	.006 [.15]	60	Gold	LAIVS
4-192042-8	.500 [1.27]	.320 [8.13]	.005 [.12]	235	Unplated	LAIVS
6-192042-6	.368 [9.38]	.320 [8.13]	.004 [.10]	170	Unplated	LAIVS
6-192042-7	.375 [9.53]	.320 [8.13]	.006 [.15]	175	Tin	LAIVS
6-192042-8	.375 [9.53]	.320 [8.13]	.006 [.15]	175	Gold	LAIVS
2-192045-3	.250 [6.35]	.200 [5.10]	.006 [.15]	95	Gold	LAIVS
192048-6	.051 [1.3]	.100 [2.54]	.004 [.10]	17	Gold	LAVIS
1-192048-1	.127 [3.23]	.100 [2.54]	.004 [.10]	22	Gold	LAVIS
2-192048-4	.156 [3.96]	.100 [2.54]	.004 [.10]	65	Gold	LAVIS

Note: All part numbers are RoHS compliant.

Notes: 1. Suggested current limits are application dependent.
2. Additional sizes are available upon request.

AMP Power Series Connectors

Product Facts

- Single-pole and 2-pole (battery) quick connect/disconnect connectors
- Eight Series, based on approximate current-carrying capability:
 - Series 15/30/45 (Single-Pole)
 - Series 50 (2-Pole Battery)
 - Series 50 Finger Probe Resistant (FPR)
 - Series 75 (Single-Pole)
 - Series 120 (Single- and 2-Pole)
 - Series 175 (2-Pole Battery)
 - Series 180 (Single-Pole)
 - Series 350 (2-Pole Battery)
- Voltage rating: 600 V AC/DC
- Color-coded housings, UL 94V-0
- Hermaphroditic (genderless) housings reduce inventory
- Modular, single-pole housings are stackable in four directions
- Polarity (+ and -) molded into 2-pole housings promotes proper wiring
- Mechanical keys help prevent two different color-coded housings from mating
- Stainless steel retaining springs secure contacts in housings
- Stamped and formed, open barrel contacts (6-20 AWG) on reels for automatic and semiautomatic machine termination
- Loose piece, cold-headed contacts (6 AWG – 300 MCM) for manual and hydraulic hand tools; reducing bushings accommodate smaller wire sizes
- Compatible with industry standard crimp tooling from Pico Corporation (<http://www.picotools.com>)
- Connectors intermateable with similar connectors from other manufacturers



- **Series 15/30/45, single-pole connectors designed to meet Amateur Radio Emergency Service (ARES)/Radio Amateur Civil Emergency Service (RACES) Standard Power Connector requirements**
- **Accessories available for mounting, vibration protection, and strain relief**
- **Component Recognized by Underwriters Laboratories Inc. to US and Canadian Standards, File No. E28476**



AMP power series connectors provide a durable, quick connect/disconnect means to transmit "power" levels of current and voltage (15-275 A, 600 V AC/DC).

This product family is primarily comprised of single-pole and 2-pole (battery) connector housings, crimp snap-in contacts, and accessories. Housings are offered in various colors. Two-pole housings have different polarization configurations; with the exception of black housings, each color identifies a different keying configuration. In general, only like color housings will mate. Contacts are either cold-headed or stamped and formed, depending upon the connector series.

AMP power series connectors are divided into eight series, based on approximate current-carrying capability.

Applications

AC/DC power supplies and charging systems, rechargeable batteries, material handling equipment (e.g. forklift trucks), electric vehicles (e.g., golf carts, sweepers, wheelchairs), office furniture/panels, amateur emergency radios, and industrial equipment.

AMP Power Series Connectors (Continued)



AMP Power Series 15/30/45

Single-pole connector housings are stackable side-to-side and top-to-bottom. For example, Series 30 red and black housings joined side-to-side, are commonly used as standard power connectors for handheld, mobile, or base amateur radio equipment.

Modular housings can also be grouped into plug frames with or without latches, which mate with receptacle housings. Typically, these are used as quick disconnects for electrical power distribution in office furniture and panels.



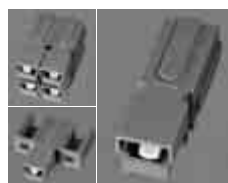
AMP Power Series 50

Two-pole (battery) housings are available in bulk quantities or in kit form (i.e., 1 housing and 2 contacts). These high durability connectors are designed for repeated mating and unmating.



AMP Power Series 50 Finger Probe Resistant (FPR)

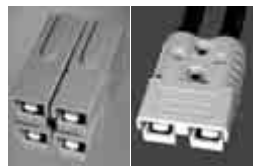
This new, 2-pole, FPR version helps prevent finger access, which allows it to be more safely used at elevated voltages and in user access areas.



AMP Power Series 75

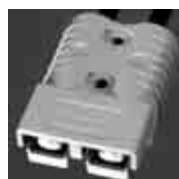
Single-pole, stackable housings, in locking and non-locking versions, are available in a variety of colors. Housings accept stamped and formed or cold-headed contacts. Bulk quantities and connector kits (1 housing and

1 contact) can be ordered. Accessories include: mounting wings for through-panel or surface mounting and mounting clamp sets for ganging housings.



AMP Power Series 120

This Series includes both single- and 2-pole (battery) versions. Single-pole housings with molded-in dovetails allow stacking. Housing retaining pins provide more vibration protection. Two-pole housing have slots designed to accept mounting clamp sets for easier panel mounting.



AMP Power Series 175

Two-pole (battery) housings accept cold-headed contacts (4-1/0 AWG). Basically, these connectors offer the same features as the two-pole Series 50 connectors.



AMP Power Series 180

These stackable, single-pole connectors accept cold-headed contacts (4-1/0 AWG). Most features are similar to the smaller, single-pole, Series 120 connectors.



AMP Power Series 350

Rugged, 2-pole housings accept only loose piece, cold-headed contacts (1/0-300 MCM). Rated at 275 A, these connectors have been tested up to 275 A, with 4/0 AWG wire.

Selection Guide

Series	Housing Type	Stackable Housing	Current Max. (A)	Voltage, Max. (V, AC or DC)	Cold-headed Contact (AWG)	Stamped & Formed Contact (AWG)	Housing Colors	Approvals
15	Single-Pole	Yes	15	600	—	16-20	Blue, Black, White, Red Green, Yellow, Orange, Gray	UL File No. E28476
30	Single-Pole	Yes	30	600	—	12-16	Blue, Black, White, Red Green, Yellow, Orange, Gray	UL File No. E28476
45	Single-Pole	Yes	40*	600	—	10-14	Blue, Black, White, Red Green, Yellow, Orange, Gray	UL File No. E28476
50	2-Pole	No	50	600	6, 8, 10-12	6-10,10-12	Red, Gray, Blue, Black, Yellow	UL File No. E28476
75	Single-Pole	Yes	75	600	6, 8,10-12	6-10,10-12	Blue, Black, White, Green, Red (Single-Pole)	UL File No. E28476
120	Single-Pole	Yes	120	600	2, 4, 6	—	Blue, Black, White, Green, Red (Single-Pole)	UL File No. E28476
120	2-Pole	No	120	600	2, 4, 6	—	Blue, Gray (2-Pole)	UL File No. E28476
175	2-Pole	No	175	600	1/0, 1, 2, 4	—	Blue, Gray, Orange, Yellow, Red	UL File No. E28476
180	Single-Pole	Yes	180	600	1/0, 1, 2, 4	—	Blue, Black, White, Green, Red	UL File No. E28476
350	2-Pole	No	275**	600	1/0, 2/0, 3/0, 4/0, 300 MCM	—	Blue, Green, Red, Yellow, Orange, Gray	UL File No. E28476

*Performance equivalent to competition **Tested to 275 Amps with 4/0 AWG wire

AMP Power Series 15/30/45 Connectors (Single-Pole)

Product Facts

- Color-coded UL 94V-0 housings: blue, black, white, green, red, yellow, orange and gray
- Genderless housings reduce inventory
- 3 contact offerings available: Series 15, 30 and 45
- Built-in interlocking features (dovetails) allow stacking
- Series 15/30/45, single-pole connectors designed to meet Amateur Radio Emergency Service (ARES)/Radio Amateur Civil Emergency Service (RACES) Standard Power Connector requirements
- Plug frames (with or without latches) and receptacle housings accept stacked single-pole housings (2 to 8 poles)
- File No. E28476 

Material and Finish

Housing—Polycarbonate, UL 94V-0

Retaining Spring—Stainless Steel

Contacts—Copper with silver or tin plating

Mounting Wings & Spacers—Polycarbonate, UL 94V-0

Retaining Pins—Stainless steel

Electrical Characteristics

Current Carrying Capability—

40 A w/10 AWG wire (Series 45)

30 A w/12 AWG wire (Series 30)

20 A w/16 AWG wire (Series 15)

Operating Voltage—600 V, AC or DC

Dielectric Withstanding Voltage—2200 VDC

Average Initial Contact

Resistance—525 micro-ohms

Mechanical Characteristics

Contact Retention—25 lbs. [111.2 N]

Average Mating/Unmating Force—4.7 [20.9 N]

Max. Wire Insulation Diameter—175 [18.16]

Wire Size Range—10-20 AWG [5-0.5 mm²]

Related Product Data

Accessories—page 151

Single-Pole Housing



Stamped and Formed Contact (Strip)



Closed Barrel Contact (Loose Piece)



AMP Power Series 15

Housing ¹		Contact Part Number	
Color	Part Number	Strip Form (16, 18, 20 AWG)	Loose Piece (16-20 AWG)
Blue	1445957-1		
Black	1445957-2		
White	1445957-3		
Green	1445957-4	1604113-1 (silver) ²	1744042-1
Red	1445957-5	1604113-2 (tin) ²	
Yellow	1445957-6		
Orange	1445957-7		
Gray	1445957-8		

AMP Power Series 30

Housing ¹		Contact Part Number	
Color	Part Number	Strip Form (12, 14, 16 AWG)	Loose Piece (12-16 AWG)
Blue	1445957-1		
Black	1445957-2		
White	1445957-3		
Green	1445957-4	1604112-1 (silver) ³	1744041-1 Dimensions shown above.
Red	1445957-5	1604112-2 (tin) ³	
Yellow	1445957-6		
Orange	1445957-7		
Gray	1445957-8		

AMP Power Series 45

Housing ¹		Contact Part Number	
Color	Part Number	Strip Form (10, 12, 14 AWG)	
Blue	1445957-1		
Black	1445957-2		
White	1445957-3		
Green	1445957-4	1445962-1 (silver) ⁴	
Red	1445957-5	1445962-2 (tin) ⁴	
Yellow	1445957-6		
Orange	1445957-7		
Gray	1445957-8		

¹ Housings are bulk packaged.

² Use Applicator Part No. 1385450-3

³ Use Applicator Part No. 1385468-3

⁴ Use Applicator Part No. 1385469-3

Note: Tyco Electronics does NOT recommend intermating connectors with different contact platings.

Note: All part numbers are RoHS compliant.

AMP Power Series 50 Connectors (2-Pole Battery)

Product Facts

- Color-coded UL 94V-0 housings: gray, red, blue, yellow and black; other colors available upon request
Note: Black color housing has the same mechanical key as the gray housing
- Mechanical keys help prevent two different voltage color-coded housings from mating
- Polarity (+ and -) molded into housings
- Genderless housings reduce inventory
- Cold-headed contact wire range: 6, 8, 10-12 AWG (Taped version of the cold-headed contacts available.)
- File No. E28476 c **RA**[®] **us**

Material and Finish

Housing—Polycarbonate, UL 94V-0
Retaining Spring—Stainless Steel
Contacts—Copper with silver plating
Reducing Bushings—Copper with silver plating

Electrical Characteristics

Current Carrying Capability—50 Amps per circuit w/6 AWG wire
Max. Operating Voltage—600 V, AC or DC
Dielectric Withstanding Voltage—2200 VDC
Average Initial Contact Resistance—200 micro-ohms

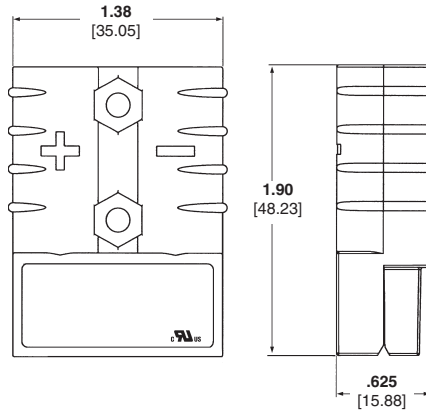
Mechanical Characteristics

Contact Retention—50 lbs. [222.4 N]
Average Mating/Unmating Force—15 lbs. [66.7 N]
Max. Wire Insulation Diameter—.44 [11.18]
Wire Size Range—6-12 AWG (also 6-16 AWG w/Reducing Bushings)

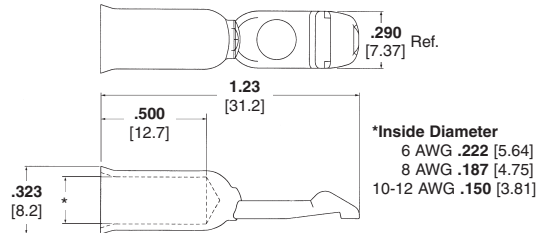
Related Product Data

Accessories—page 151

2-Pole Housing

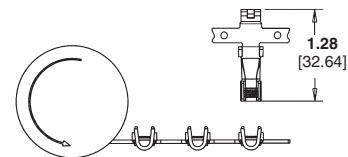


Cold-headed Contact



*Inside Diameter
 6 AWG .222 [5.64]
 8 AWG .187 [4.75]
 10-12 AWG .150 [3.81]

Stamped and Formed Contact (on Reel)



AMP Power Series 50 (2-Pole)

Housing ^{2,3}		Contact ²		Connector Kit
Color	Part Number	Wire Size	Part Number	Part Number ¹
Red	647845-3	6 AWG	647877-1	647892-3
		10-12 AWG	647879-1	647893-3
Gray	647845-4	6 AWG	647877-1	647892-4
		10-12 AWG	647879-1	647893-4
Blue	647845-5	6 AWG	647877-1	647892-5
		10-12 AWG	647879-1	647893-5
Black ⁴	647845-7	6 AWG	647877-1	647892-7
		10-12 AWG	647879-1	647893-7
Yellow	647845-8	6 AWG	647877-1	647892-8
		10-12 AWG	647879-1	647893-8
Cold-headed Contact		8 AWG	647878-1	—
⁵ Stamped and Formed contacts, on Reel		6-10 AWG	1604433-17	
⁶ Stamped and Formed contacts, on Reel		10-12 AWG	1604433-27	

¹ 1 Housing and 2 contacts.

² Housings and contacts are bulk packaged.

³ Mechanical keys molded in housings generally will engage only with housings of same color.

⁴ Black color housing has the same mechanical key as the gray housing.

⁵ Use Heavy Duty Mini-Applicator (HDM) for 6 to 8 AWG - Part Number 1385663-2 (Use with AMP-O-LECTRIC Model K Terminator)

⁶ Use Heavy Duty Mini-Applicator (HDM) for 10 to 12 AWG - Part Number 1385664-2 (Use with AMP-O-LECTRIC Model K Terminator)

⁷ Use Power Lock Machine Part Number 68296-1

Voltage Key Color Chart

Housing Color	Voltage
Yellow	12V
Red	24V
Gray	36V
Blue	48V
Black	80V

Color code given for various voltages is only a suggestion, other codes and keys available upon request.

Note: All part numbers are RoHS compliant.

AMP Power Series 50 FPR (Finger Probe Resistant) Connectors

Product Facts

- Complies with UL 60950 finger probe requirements
- Utilizes AMP Power Series 50 contacts
- Brown and white housing colors available (other colors possible)
- Two keying configurations available (up to 6 keying configurations possible)
- File No. E28476 

2-Pole Housing



Cold-headed Contact



Stamped and Formed Contact (on Reel)



Material and Finish

Housing—Polycarbonate, UL 94V-0
Retaining Spring—Stainless Steel
Contacts—Copper
Reducing Bushings—Copper with silver plating

Electrical Characteristics

Current Capability—50 A max.
Voltage Rating—600 V, AC or DC
Dielectric Withstanding Voltage—2200 VDC

Mechanical Characteristics

Meets UL finger probe as outlined in UL 60950
Contact Retention—50 lbs. [222.4 N]
Wire Size—6-12 AWG [15-3 mm²]
Max. Wire Insulation Diameter—.44 [11.18]

Related Product Data

Accessories—page 151

Applications

- Uninterruptible Power Supplies
- Power Supplies
- Battery Banks

AMP Power Series 50 FPR (2-Pole)

Housing ^{1,2}		Wire Size	Contact Part Number ¹			
Color	Part Number		Cold-headed ⁵		Stamped and Formed/Strip ^{3,4,6}	
			Loose Piece	On Tape	On Reel	
Brown	1604342-1	6 AWG	647877-1	647754-1	6-10 AWG	1604433-1 ⁶
White	1604342-2	8 AWG	647878-1	647755-1		
		10-12 AWG	647879-1	647756-1	10-12 AWG	1604433-2 ⁶

¹ Housings and contacts are bulk packaged.

² Mechanical keys molded in housings will engage only with housings of same color.

³ Use Heavy Duty Mini-Applicator (HDM) for 6 to 8 AWG - Part Number 1385663-2 (Use with AMP-O-LECTRIC Model K Terminator)

⁴ Use Heavy Duty Mini-Applicator (HDM) for 10 to 12 AWG - Part Number 1385664-2 (Use with AMP-O-LECTRIC Model K Terminator)

⁵ Hand Tool for Cold-headed Contact - Part Number 1526955-1

Taped version can be terminated using the AMP-TAPETRONIC Machine

⁶ Use Power Lock Machine Part Number 68296-1

Note: All part numbers are RoHS compliant.

AMP Power Series 75 Connectors (Single-Pole)

Product Facts

- Color-coded UL 94V-0 housings: blue, black, white, green and red
- Genderless housings reduce inventory
- Cold-headed contact wire range: 6, 8, 10-12 AWG
- Stamped and formed contacts available:
6-8 AWG Part Number 1604433-1 (strip);
10-12 AWG Part Number 1604433-2 (strip)
- File No. E28476 

Material and Finish

Housing—Polycarbonate, UL 94V-0

Retaining Spring—Stainless Steel

Contacts—Copper with silver plating
Reducing Bushings—Copper with silver plating

Mounting Wings—Polycarbonate, UL 94V-0

Retaining Pins—Stainless steel

Electrical Characteristics

Current Carrying Capability (with 6 AWG)—Configuration:

Single-Pole 75 A

1x2 Stacked 62 A

2x2 Stacked 60 A

1x3 Stacked 58 A

2x3 Stacked 52 A

Operating Voltage—600 V, AC or DC

Dielectric Withstanding Voltage—2200 VDC

Average Initial Contact

Resistance—200 micro-ohms

Mechanical Characteristics

Contact Retention—50 lbs. [222.4 N]

Average Mating/Unmating Force—15 lbs. [66.7 N]

Max. Wire Insulation Diameter—.44 [11.18]

Wire Size Range—6-12 AWG [15-3 mm²]

Related Product Data

Accessories—page 151

Application Tooling—page 153

Housing without Locking Feature

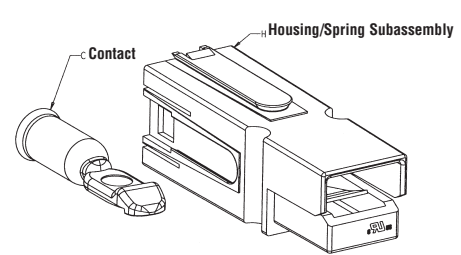


Cold-headed Contact

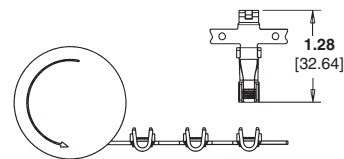


*Inside Diameter
6 AWG .222 [5.64]
8 AWG .187 [4.75]
10-12 AWG .150 [3.81]

Housing with Locking Feature



Stamped and Formed Contact (on Reel)



AMP Power Series 75 (Single-Pole)

Housing ²		Cold-headed Contact ²		Connector Kit Part Number ¹
Color	Part Number	Wire Size	Part Number	
Non-Locking Version				
Blue	1445715-1	6 AWG	647877-1	1445716-1
Black	1445715-2	6 AWG	647877-1	1445716-2
White	1445715-3	6 AWG	647877-1	1445716-3
Green	1445715-4	6 AWG	647877-1	1445716-4
Red	1445715-5	6 AWG	647877-1	1445716-5
Locking Version				
Blue	1445715-6	6 AWG	647877-1	1445716-6
Black	1445715-7	6 AWG	647877-1	1445716-7
White	1445715-8	6 AWG	647877-1	1445716-8
Green	1445715-9	6 AWG	647877-1	1445716-9
Red	1-1445715-0	6 AWG	647877-1	1-1445716-0

*Samples available on loose housing and contacts only.

Contacts

Description	Wire Size	Part Number	Die Set Part Number ³	Applicator Part No. for AMP-O-ELECTRIC Model K Terminator
Cold-headed (Loose Piece) ⁴	6 AWG	647877-1	—	—
	8 AWG	647878-1	—	—
	10-12 AWG	647879-1	—	—
Cold-headed (Tape) ^{3, 4}	6 AWG	647754-1	68344-1	—
	8 AWG	647755-1	68344-1	—
	10-12 AWG	647756-1	68313-1	—
Stamped and Formed (Strip)	6-8 AWG	1604433-1	—	1385664-2
	10-12 AWG	1604433-2	—	1385663-2

¹ 1 housing and 1 contact

² Housings and contacts are bulk packaged.

³ Taped version can be terminated using the AMP-TAPETRONIC machine Part Number 68250-1.

⁴ Use hand tool Part Number 1526955-1 for Cold-headed contacts

Note: All part numbers are RoHS compliant.

AMP Power Series 120 Connectors (Single-Pole)



Product Facts

- Color-coded modular housings: blue, black, white, green and red
- Genderless housings reduce inventory
- Cold-headed contact wire range: 2, 4, and 6 AWG
- Built-in interlocking features (dovetails) allow stacking and wire routing
- Self-wiping contacts increase product life and improve conductivity
- Integral stainless steel locking spring in housing for contact retention
- Rugged design
- File No. E28476 c  us

Material and Finish

Housing—Polycarbonate, UL 94V-0
Retaining Spring—Stainless Steel
Contacts—Copper with silver plating
Reducing Bushings—Copper with silver plating
Mounting Clamp Sets—Aluminum

Electrical Characteristics

Current Carrying Capability—

Single-Pole—120 A
 2x1 Stacked Array—115 A
 2x2 Stacked Array—115 A

Voltage Rating—600 V
 (both AC and DC)

Dielectric Withstanding Voltage—
 2200 VDC

Average Initial Contact

Resistance—136 micro-ohms

Mechanical Characteristics

Contact Retention—100 lbs.
 [444.8 N]

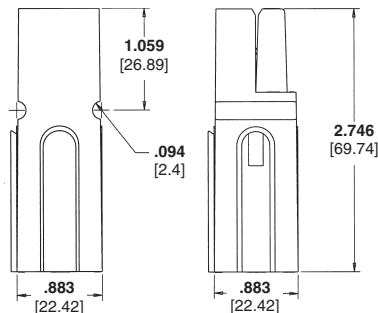
Average Mating/Unmating Force—8 lbs. [35.6 N]

Temperature Rating—-4°F to
 221°F [-20°C to 105°C]

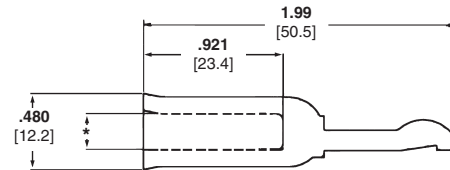
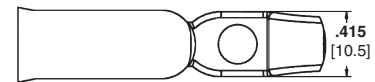
Max. Wire Insulation Diameter—
 .6 [15.24]

Wire Size Range—2-6 AWG

Single-Pole Housing



Cold-headed Contact



*Inside Diameter 6 AWG .222 [5.64];
 4 AWG .295 [7.5];
 2 AWG .344 [8.74]

AMP Power Series 120 (Single-Pole)

Housing		Contact		Connector Kit
Color	Part Number	Wire Size	Part Number	Part Number ¹
Blue	1604001-1	2 AWG	1445995-1	1604002-1
Black	1604001-2	2 AWG	1445995-1	1604002-2
White	1604001-3	2 AWG	1445995-1	1604002-3
Green	1604001-4	2 AWG	1445995-1	1604002-4
Red	1604001-5	2 AWG	1445995-1	1604002-5
—	—	4 AWG	1445996-1	—
—	—	6 AWG	1445997-1	—

¹ 1 Housing and 1 contact.

Related Product Data

Accessories—page 152

Application Tooling—page 153

Technical Documents—page 154

Note: All part numbers are RoHS compliant.

AMP Power Series 120 Connectors (2-Pole Battery)



Product Facts

- Color-coded UL 94V-0 housings: gray and blue
- Keying feature helps prevent two different voltage color-coded housings from mating
- Genderless housings reduce inventory
- Contact wire range: 2, 4, 6 AWG
- Molded-in panel-mount grooves
- Integral stainless steel locking spring in housing for contact retention
- Rugged design
- File No. E28476 

Material and Finish

Housing—Polycarbonate, UL 94V-0
Retaining Spring—Stainless Steel
Contacts—Copper with silver plating
Reducing Bushings—Copper with silver plating

Electrical Characteristics

Current Carrying Capability—115 A with 2 AWG
Voltage Rating—600 V (both AC and DC)
Dielectric Withstanding Voltage—2200 VDC
Avg. Initial Contact Resistance—136 micro-ohms

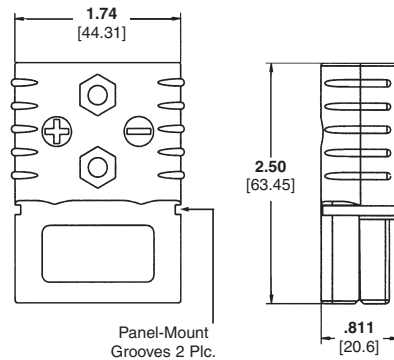
Mechanical Characteristics

Contact Retention—100 lbs. [444.8 N]
Average Mating/Unmating Force—18 lbs. [80.1 N]
Temperature Rating—-4°F to 221°F [-20°C to 105°C]
Max. Wire Insulation Diameter—.6 [15.24]
Wire Size Range—2-6 AWG

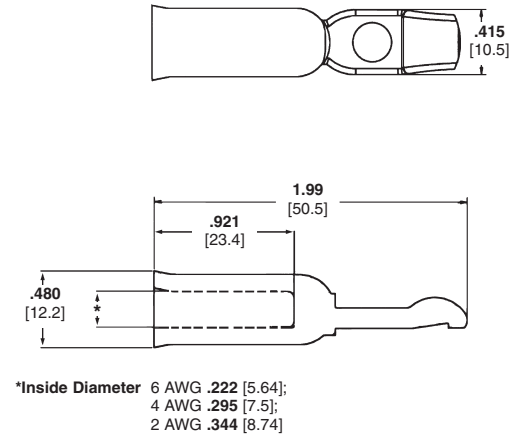
Related Product Data

Accessories—page 152
Application Tooling—page 153
Technical Documents—page 154

2-Pole Housing



Cold-headed Contact



AMP Power Series 120 (2-Pole)

Housing ^{2,3}		Contact ²		Connector Kit Part Number ¹
Color	Part Number	Wire Size	Part Number	
Gray	1445994-1	2 AWG	1445995-1	1445998-1
Blue	1445994-2	2 AWG	1445995-1	1445998-2
Gray	1445994-1	4 AWG	1445996-1	1445999-1
Blue	1445994-2	4 AWG	1445996-1	1445999-2
Gray	1445994-1	6 AWG	1445997-1	1446000-1
Blue	1445994-2	6 AWG	1445997-1	1446000-2

¹ 1 Housing and 2 contacts.

² Housings and contacts are bulk packaged.

³ Mechanical keys molded in connectors will engage only with connectors of same color.

Voltage Key Color Chart

Housing ^{2,3} Color	Voltage
Gray	36 V
Blue	48 V

Color code given for various voltages is only a suggestion, other codes and keys available upon request.

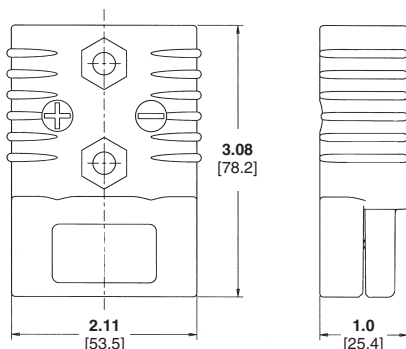
Note: All part numbers are RoHS compliant.

AMP Power Series 175 Connectors (2-Pole Battery)

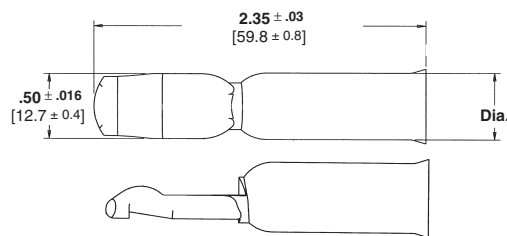
Product Facts

- Color-coded UL 94V-0 housings: yellow, orange, red, gray, blue, and black
- Keying feature helps prevent two different voltage color-coded housings from mating
- Genderless housings reduce inventory
- Contact wire range: 1/0, 1, 2, 4 AWG
- Integral stainless steel locking spring in housing for contact retention
- Reducing bushings down to 10 gauge
- File No. E28476 

2-Pole Housing



Cold-headed Contact



Inside Diameter .516±.005 [13.1±0.13] for 1/0 AWG
.512±.005 [13.0±0.13] for 1 AWG,
2 AWG, and 4 AWG

Material and Finish

Housing—Polycarbonate, UL 94V-0
Retaining Spring—Stainless Steel
Contacts—Copper with silver plating
Reducing Bushings—Copper with silver plating

Electrical Characteristics

Current Carrying Capability—
175 Amp @ 80.42°F [26.9°C] T-Rise
with 1/0 AWG wire

Voltage Rating—600 V (both AC
and DC)

Dielectric Withstanding Voltage—
2200 VDC

Avg. Initial Contact Resistance—
100 micro-ohms

Mechanical Characteristics

Average Mating/Unmating

Force—25 lbs. [111.21 N]

Max. Wire Insulation Diameter—
.750 [19.05]

Wire Size Range—1/0, 1, 2, 4 AWG
[53, 40, 35, 21 mm²]

Contact Retention—300 lbs.
[1,334.47 N]

Temperature Rating—-4°F to
221°F [-20°C to 105°C]

Related Product Data

Accessories—page 152

Application Tooling—page 153

Technical Documents—page 154

AMP Power Series 175 (2-Pole)

Housing		Connector Kit Part Numbers ^{1,2}			
Color	Part Number	4 AWG	2 AWG	1 AWG	1/0 AWG
Yellow	1604037-1	1604044-1	1604043-1	1604045-1	1604042-1
Orange	1604037-2	1604044-2	1604043-2	1604045-2	1604042-2
Red	1604037-3	1604044-3	1604043-3	1604045-3	1604042-3
Gray	1604037-4	1604044-4	1604043-4	1604045-4	1604042-4
Blue	1604037-5	1604044-5	1604043-5	1604045-5	1604042-5
Black ³	1604037-6	1604044-6	1604043-6	1604045-6	1604042-6

¹ 1 Housing and 2 contacts.

² Housings and contacts are bulk packaged.

³ Black housing mates with any other housing.

Contacts (Cold-headed)

Wire Size	Part Number
4 AWG	1604040-1
2 AWG	1604039-1
1 AWG	1604041-1
1/0 AWG	1604038-1

Voltage Key Color Chart

Housing Color	Voltage
Yellow	12 V
Orange	18 V
Red	24 V
Gray	36 V
Blue	48 V
Black	80 V

Color code given for various voltages is only a suggestion, other codes and keys available upon request.

Note: All part numbers are RoHS compliant.

AMP Power Series 180 Connectors (Single-Pole)

Product Facts

- Color-coded modular housings: blue, black, white, red and green
- Genderless housings reduce inventory
- Contact wire range: 1/0, 1, 2, 4 AWG
- Integral stainless steel locking spring in housing for contact retention
- Built-in interlocking features (dovetails) allow stacking and wire routing
- Reducing bushings down to 10 gauge
- File No. E28476 c  us

Single-Pole Housing



Cold-headed Contact



Material and Finish

Housing—Polycarbonate, UL 94V-0

Retaining Spring—Stainless Steel

Contacts—Copper with silver plating

Mounting Clamp Sets—Aluminum

Reducing Bushings—Copper with silver plating

Electrical Characteristics

Current Carrying Capability—

(1/0 AWG Wire)

1 x 1 — 180 A, 84.9°F [29.4°C] T-Rise

2 x 1 — 165 A, 78.3°F [25.7°C] T-Rise

2 x 2 — 150 A, 76.6°F [24.8°C] T-Rise

Voltage Rating—600 V (both AC and DC)

Dielectric Withstanding Voltage—2200 VDC

Avg. Initial Contact Resistance—100 micro-ohms

Mechanical Characteristics

Average Mating/Unmating

Force—20 lb. [89 N]

Max. Wire Insulation Diameter—.900 [22.86]

Wire Size Range—1/0, 1, 2, 4 AWG [53, 40, 35, 21 mm²]

Contact Retention—170 lb. [756 N]

Temperature Rating—-4°F to 221°F [-20°C to 105°C]

Related Product Data

Accessories—page 152

Application Tooling—page 153

Technical Documents—page 154

AMP Power Series 180 (Single-Pole)

Housing		Connector Kit Part Numbers ^{1,2}			
Color	Part Number	4 AWG	2 AWG	1 AWG	1/0 AWG
Blue	1604062-1	1604395-1	1604396-1	1604397-1	1604398-1
Black	1604062-2	1604395-2	1604396-2	1604397-2	1604398-2
White	1604062-3	1604395-3	1604396-3	1604397-3	1604398-3
Red	1604062-4	1604395-4	1604396-4	1604397-4	1604398-4
Green	1604062-5	1604395-5	1604396-5	1604397-5	1604398-5

¹ 1 Housing and 1 contact.

² Housings and contacts are bulk packaged.

Contacts (Cold-headed)

Wire Size	Part Number
4 AWG	1604040-1
2 AWG	1604039-1
1 AWG	1604041-1
1/0 AWG	1604038-1

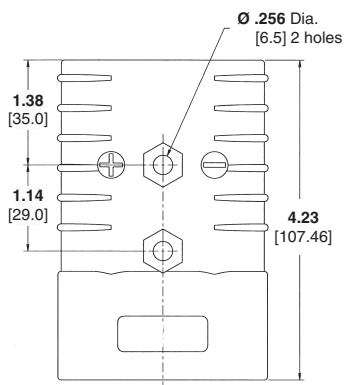
Note: All part numbers are RoHS compliant.

AMP Power Series 350 Connectors (2-Pole Battery)

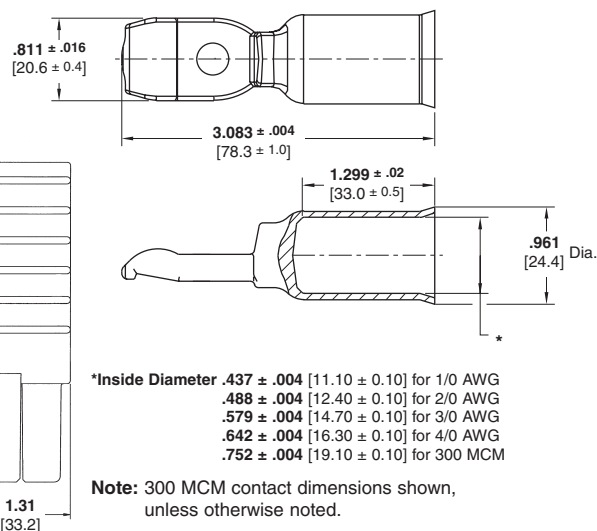
Product Facts

- Color-coded UL 94V-0 housings: yellow, orange, red, gray, blue, and green
- Keying feature helps prevent two different voltage color-coded housings from mating
- Genderless housings reduce inventory
- Contact wire range: 1/0, 2/0, 3/0, 4/0, 300 MCM
- Replaceable contacts
- Integral stainless steel locking spring in housing for contact retention
- File No. E28476  us

2-Pole Housing



Cold-headed Contact



Material and Finish

Housing—Polycarbonate, UL 94V-0

Retaining Spring—Stainless Steel

Contacts—Copper with silver plating

Reducing Bushings—Copper with silver plating

Electrical Characteristics

Current Carrying Capability—
275 Amp @ 83.3°F [28.5°C] T-Rise
with 4/0 AWG wire

Voltage Rating—600 V, AC or DC

Dielectric Withstanding Voltage—
2200 VDC

Average Initial Contact

Resistance—50 micro-ohms

Mechanical Characteristics

Contact Retention—500 lbs.
[2224.1 N]

Average Mating/Unmating
Force—30 lbs. [133.5 N]

Max. Wire Insulation Diameter—
1.10 [27.94]

Temperature Rating—-4°F to
221°F [-20°C to 105°C]

Wire Size Range—1/0, 2/0, 3/0,
4/0, 300 MCM [53, 67, 85, 107,
152 mm²]

Related Product Data

Accessories—page 152

Application Tooling—page 153

Technical Documents—page 154

Reducing Bushing—(1/0 to 2/0 AWG)

Part No. 1604121-6

Cable Clamp—Part No. 647688-1

AMP Power Series 350 (2-Pole)

Housing		Connector Kit Part Numbers ^{1,2}				
Color	Part Number	1/0 AWG	2/0 AWG	3/0 AWG	4/0 AWG	300 MCM
Yellow	1604050-1	1604060-1	1604059-1	1604058-1	1604057-1	1604056-1
Orange	1604050-2	1604060-2	1604059-2	1604058-2	1604057-2	1604056-2
Red	1604050-3	1604060-3	1604059-3	1604058-3	1604057-3	1604056-3
Gray	1604050-4	1604060-4	1604059-4	1604058-4	1604057-4	1604056-4
Blue	1604050-5	1604060-5	1604059-5	1604058-5	1604057-5	1604056-5
Green	1604050-6	1604060-6	1604059-6	1604058-6	1604057-6	1604056-6

¹ 1 Housing and 2 contacts.

² Housings and contacts are bulk packaged.

Contacts (Cold-headed)

Wire Size	Part Number
1/0 AWG	1604055-1
2/0 AWG	1604054-1
3/0 AWG	1604053-1
4/0 AWG	1604052-1
300 MCM	1604051-1

Voltage Key Color Chart

Housing Color	Voltage
Yellow	12V
Orange	18V
Red	24V
Gray	36V
Blue	48V
Green	72V

Color code given for various voltages is only a suggestion, other codes and keys available upon request.

Note: All part numbers are RoHS compliant.

AMP Power Series Accessories

AMP Power Series 15/30/45 Mounting Wings



AMP Power Series 15/30/45 Accessories

Part Number	Description
Mounting Wings	
1445960-1	Red, UL 94V-0
Spacers	
1445959-1	Red, UL 94V-0, Short
1445959-2	Red, UL 94V-0, Long
Retaining Pins for use with 15 A/30 A/45 A	
1445886-4	.25 [6.35] length
1445886-5	.44 [11.18] length

Part Number	Description
Hardware Kits (Cable clamp, screws & retaining pins)	
647747-3	4 pole
647747-2	6 pole
647747-1	8 pole

AMP Power Series 15/30/45 Hardware Kits



AMP Power Series 50 Accessories

Part Number	Description
1744077-1	Dust Cover, Black
1445762-1	Reducing Bushing — 6 to 8 AWG
647840-1	Reducing Bushing — 6 to 10-12 AWG
1445763-1	Reducing Bushing — 6 to 14-16 AWG

Please contact Product Engineering or Product Management for availability.
(permits use of smaller wires with 6 AWG contact Part Number 647877-1)

AMP Power Series 75 Accessories

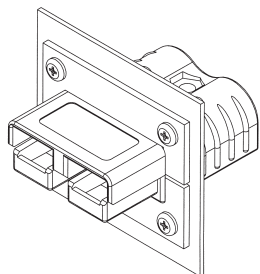
Part Number	Description
Mounting Wings	
1445729-1	Blue, oval mounting hole
1445729-2	Blue, round mounting hole
Retaining Pins for use with 75 A/120 A/180 A	
1445886-1	75 A/120 A/180 A hsgs, 1 high block
1445886-2	75 A/120 A/180 A hsgs, 2 high block
Reducing Bushings for Series 50 A and 75 A	
1445762-1	6 to 8 AWG
647840-1	6 to 10-12 AWG
1445763-1	6 to 14-16 AWG

Mounting clamp set part numbers available.

Note: All part numbers are RoHS compliant.

AMP Power Series Accessories (Continued)

AMP Power Series 120 Panel Mounting Clamp



AMP Power Series 120 Accessories

Part Number	Type	Description
Retaining Pins for use with 75A/120A/180A		
1445886-1	Single-Pole	1 high block
1445886-2	Single-Pole	2 high block
Reducing Bushings		
1604072-3	Single/2-Pole	2 to 4 AWG
1604072-2	Single/2-Pole	2 to 6 AWG
1604072-1	Single/2-Pole	2 to 8 AWG
Mounting Clamp Sets		
647721-1	Single-Pole	2- & 4- pole configuration
647722-1	Single-Pole	3-pole configuration
Panel Mounting Clamp		
1744090-1	2-Pole	—

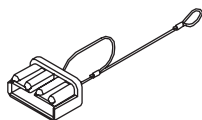
AMP Power Series 175 & 350 Handle Kit



AMP Power Series 175, 180 & 350 Accessories

Part Number	Type	Description
Reducing Bushings		
1604121-1	175/180	10 to 1/0 AWG
1604121-2	175/180	6 to 1/0 AWG
1604121-5	175/180	4 to 1/0 AWG
1604121-4	175/180	2 to 1/0 AWG
1604121-3	175/180	1 to 1/0 AWG
1604121-6	350	1/0 to 2/0 AWG
Handle Kit		
647737-1	175 2-Pole	Red
647737-2	175 2-Pole	Gray
1-647737-1	350 2-Pole	Red
1-647737-2	350 2-Pole	Gray

AMP Power Series 175 Dust Cover Assembly



AMP Power Series 175 & 180 Accessories

Part Number	Type	Description
Cable Clamps		
647720-1	180	2 pole version
647719-1	180	3 pole version
Dust Cover		
647691-1	175	Dust Cover Assembly (Shown)
647692-1	175	Dust Cover Housing

Note: All part numbers are RoHS compliant.

AMP Power Series Tooling

Power Applicator Part Number 68296-1 (Customer Manual 409-2661)



The semiautomatic power applicator is designed to produce a carefully controlled uniform pressure crimp while providing a high rate of production. The applicator features matching dies that fully bottom at the completion of the crimp to provide proper crimp height. The one die set is fully adjustable to provide the full range of crimp heights for all wire sizes.

500 MCM Heavy Duty Cable Cutter Part No. 605742-1 (408-4557)



- Designed to cut aluminum or copper cable up to 500 MCM.
- Light weight tubular steel handles with hand grips
- 21" overall length

Cable Insulation Stripper/Slitter Part No. 606700-1 (408-9688)



- Used on single or multiple conductor cable up to 1.75" in diameter

Contact Extraction Tool Part No. 68265-1 or standard insulated screwdriver



Hand Tools for Cold-Headed Contacts and Heavy-Duty Lug Terminals (Single-Indent Crimp)



For AMP Power Series 50 and 75 Contacts			Tyco Electronics Crimp Tool Part No. 1526955-1 Includes Adapter		OR	American Electrical Terminal (AET) Crimp Tool Part No. T-406 Includes Adapter		Also For Heavy-Duty Lug Terminals	
Wire Size (AWG)	Strip Length	Part No.	Part Number	Marking		Part Number	Marking	Wire Size (AWG)	Strip Length
6	.475-.525 [12.06-13.33]	647877-1	1527508-1	A		5992	A	6	7/16 [11.11]
8		647878-1						4	1/2 [12.70]
10-12		647879-1						1/0	11/16 [17.46]
—	—	—						2/0	11/16 [17.46]
			1527507-1	B		5991	B	2	9/16 [14.29]
			1527505-1	C		5989	C	1	5/8 [15.87]
			No Adapter	—		No Adapter	—	3/0	3/4 [19.05]
								4/0	13/16 [20.64]

Pneumatic Tools for Cold-Headed Contacts (Dual-Indent Crimp) and Heavy-Duty Lug Terminals



AMP Power Series Contacts			PICO* Pneumatic Tools**					
Series	Wire Size (AWG)	Part No.	400 Series Power Unit		Die	Locator		Closure Dim.
			Preferred	Alternate		Preferred	Alternate	
50/50 FPR/75	6	647877-1	400-BEC	400-BHD	414DA-4583	4582-1	9616-1	.152 [3.86]
	8	647878-1			414DA-4583			.152 [3.86]
	10-12	647879-1			414DA-4582			.134 [3.40]
120	2	1445995-1	400-BEC	400-BHD	414DA-4580	4580-1	None	.200 [5.08]
	4	1445996-1						
	6	1445997-1						
500 Series Power Unit								
50/50 FPR/75	6	647877-1	500-DEC	500-D	514DA-7033	7033-1	7034-1	.152 [3.86]
	8	647878-1			514DA-7033			.152 [3.86]
	10-12	647879-1			514DA-7034			.134 [3.40]
120	2	1445995-1	500-DEC	500-D	514DA-7035	7035-1	None	.200 [5.08]
	4	1445996-1						
	6	1445997-1						
175/180	1/0	1604038-1	500-DEC	500-D	514DA-10023	10034-1	None	.225 [5.72]
	2	1604039-1						
	4	1604040-1						
	1	1604041-1						
350	300 MCM	1604051-1	500-DEC	500-D	514DA-10027	10023-2	None	.475 [12.07]
	4/0	1604052-1			514DA-10026	10023-2		.400 [10.16]
	3/0	1604053-1			514DA-10025	10023-2		.360 [9.14]
	2/0	1604054-1			514DA-10024	10023-1		.325 [8.26]
	1/0	1604055-1			514DA-10023	10023-1		.225 [5.72]

* Pico Corporation, 444 Constitution Ave., Camarillo, CA 93012-8505; Tel: (805) 388-5510

** Pneumatic Tool consists of a power unit, die, and locator; it can be used as a portable hand tool, bench-mounted hand tool, or foot-controlled unit.

Note: All part numbers are RoHS compliant.

AMP Power Series Connectors (Continued)

Technical Documents

Various technical documents are available for your use:

Product Specifications describe technical performance characteristics and verification tests. They are intended for the Design, Component and Quality Engineer.

108-1349	AMPINNERGY WTB Connectors
108-1373	AMPINNERGY WTW Connectors
108-2104	AMP Power Series 50 Connectors
108-2149	AMP Power Series 15 Connectors
108-2150	AMP Power Series 30 Connectors
108-2151	AMP Power Series 45 Connectors
108-2152	AMP Power Series 75 Connectors
108-2153	AMP Power Series 120 Connectors
108-2154	AMP Power Series 175 Connectors
108-2155	AMP Power Series 180 Connectors
108-2156	AMP Power Series 350 Connectors

Application Specifications describe requirements for using the product in its intended application and/or crimping information. They are intended for the Packaging and Design Engineer and the Machine Setup Person.

114-6044	AMPINNERGY WTB Connectors
114-6051	AMPINNERGY WTW Connectors
114-13071	AMP Power Series 50 (Double-Pole) and 75 (Single Pole) Connector Assemblies
114-13107	AMP Power Series 120 (Single- and Double-Pole) Connector Assemblies
114-13118	AMP Power Series 175 (Double-Pole) and 180 (Single-Pole) Connector Assemblies
114-13119	AMP Power Series 350 (Double-Pole) Connector Assemblies
114-13127	AMP Power Series 15, 30 and 45 (Single-Pole) Connector Assemblies

Instruction Sheets provide instructions for assembling or applying the product. They are intended for the Manufacturing Assembler or Operator.

408-3198	Inspection of AMPINNERGY System Power Contacts
408-3236	Installation of AMPINNERGY WTB Connectors
408-3277	AMPINNERGY Wire-To-Wire Stackable Connectors
408-8636	AMP Power Series 50 Connector Assemblies
408-8868	AMP Power Series 175 and 350 Connector Assemblies with Cable Clamp Kits
408-4557	Heavy Duty Cable Cutter Hand Tool 605743-1
408-4559	Heavy Duty Cable Cutter Hand Tool 605744-1
408-4561	Heavy Duty Cable Cutter Hand Tool 6057469-1
408-8540	Crimp Tool 1526955-1
408-9688	Cable Stripper/Slitter Tool 606700-1
408-9816	Handling of Reeled Products

Test Summary

502-1136	50/75 Product Evaluation
502-1160	15/30/45 Product Evaluation
502-1166	120 Product Evaluation
502-1167	120 Competitive Evaluation
502-1172	AMP Power Series 175/180 Product Evaluation
502-1173	AMP Power Series 350 Product Evaluation
502-1189	15/30/45 Intermate
502-1206	15/30/45 Stamped and Formed Contact Evaluation

Customer Manual

409-5128	AMP-O-ELECTRIC Model K Terminator Machine 1-471273-2
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Note: All part numbers are RoHS compliant.

Domino Series Connectors

Hot-Plug High Current Modular Power Connectors

Key Features

- Modular construction
- Blind-mating
- High current CROWN BAND contacts
- Logic/Signal
- Locking system
- Uses ELCON drawer contacts

Typical Applications

- Power Supplies
- Telecommunications
- Automatic Test Equipment
- Computer Hardware
- Process Control
- Uninterruptible Power Systems
- All Domino products in this section are RoHS compliant



The ELCON Domino connector system is a modular high-current connector system consisting of interchangeable modules which can provide AC, DC, logic and signal, float mounting, and pin sequencing. All Domino modules incorporate CROWN BAND technologies, tried and tested under the most arduous conditions. The high current capabilities virtually eliminate the need for bussing or splitting current, with resulting space savings and economies.

The Domino connector system allows the user to configure a connector specific to an application, from off-the-shelf components. It can be purchased as separate modules and assembled by the user, but is more generally ordered as a

connector assembly using an assembly part number which Tyco Electronics assigns to a specific configuration. Consult Tyco Electronics for assistance in laying out a new connector. If required, Domino connector assembly is simple: once the locking rails are cut to size, the only tool required is a Phillips screwdriver for tightening the end-caps.

Most Domino contacts are the same as used in ELCON drawer connectors. Modules A through E and R are sold as housings with retention clips; the contacts are ordered separately. See page 80 for available contact options and plating information, page 67 for tooling. Modules K, L, and M are sold pre-loaded with contacts. Domino assemblies are shipped complete with contacts.

The Domino system is ideal for use with hot-pluggable power supplies of the type employed for load-sharing and/or redundant power for computer systems. Current interruption capability is standard in the L module and an available option in the A module.

The CROWN BAND contact is a small louvered cylindrical receptacle of beryllium copper. Manufactured on progressive dies to allow consistent, even insertion and withdrawal forces, its design helps ensure maximum surface contact area for minimum voltage drop and minimum heat generation. CROWN BAND contacts also provide excellent shock and vibration resistance.

Domino Series Connectors (Continued)

A Modules — 3 x #12 Power Contacts, Hot-Plug option available

Note: Supplied without contacts. Crimp insertable/removable, PCB insertable/non-removable

Specifications: Contact rating 35 Amps UL, 20 Amps CSA, 250V; Hot-plug 35 Amps UL, 30 Amps CSA, 120 V ac, 50 cycles; Fully loaded module nominal forces: insertion 9.2 lbs, extraction 5.5 lbs (Hot-plug insertion 11.5 lbs, extraction 6.4 lbs)



Pin Housing
(without contacts)
Part Number 1648461-1



Socket Housing
(without contacts)
Part Number 1648466-1

B Modules — 2 x #8 Power Contacts

Note: Supplied without contacts. Crimp insertable/removable, PCB insertable/non-removable

Specifications: Contact rating 75 Amps UL, 40 Amps CSA, 250V; Fully loaded module nominal forces: insertion 6.7 lbs, extraction 3.9 lbs



Pin Housing
(without contacts)
Part Number 1648462-1



Socket Housing
(without contacts)
Part Number 1648467-1

C Modules — 20 x #20 Signal Contacts

Note: Supplied without contacts. Crimp insertable/removable, PCB insertable/non-removable

Specifications: Contact rating 5 Amps UL, 4 Amps CSA, 125V; Fully loaded module nominal forces: insertion 2.4 lbs, extraction 2.6 lbs



Pin Housing
(without contacts)
Part Number 1648463-1



Socket Housing
(without contacts)
Part Number 1648468-1

D Module — 5 x #16 Power Contacts

Note: Supplied without contacts. Crimp insertable/removable, PCB insertable/non-removable

Specifications: Contact rating 15 Amps UL, 10 Amps CSA, 125V; Fully loaded module nominal forces: insertion 18.6 lbs, extraction 13.0 lbs



Pin Housing
(without contacts)
Part Number 1648464-1



Socket Housing
(without contacts)
Part Number 1648469-1

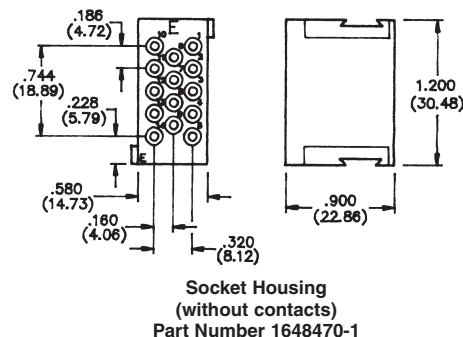
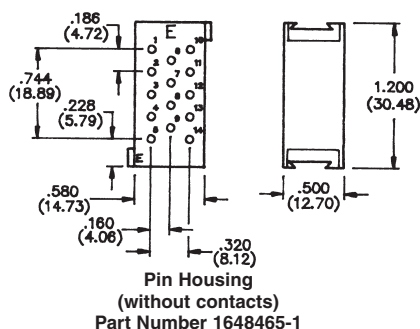
Note: All part numbers are RoHS compliant.

Domino Series Connectors (Continued)

E Modules — 14 x #16 Power Contacts

Note: Supplied without contacts. Crimp insertable/removable, PCB insertable/non-removable

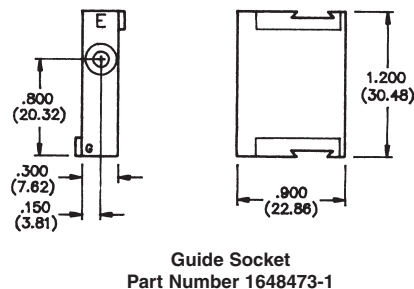
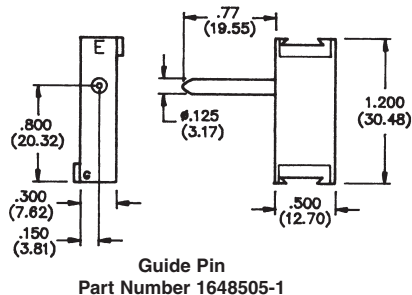
Specifications: Contact rating 15 Amps UL, 10 Amps CSA, 125V; Fully loaded module nominal forces: insertion 43.1 lbs, extraction 33.7 lbs



G Modules - Non-electrical Guide Module

Note: May be turned through 180 in the horizontal plane

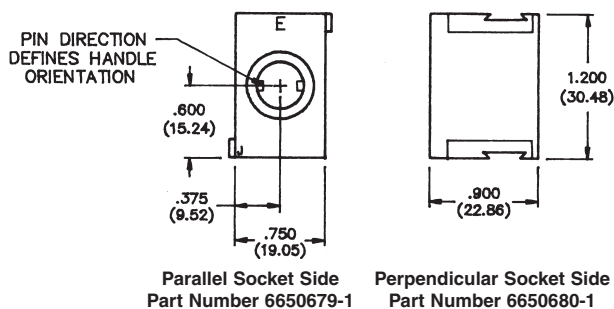
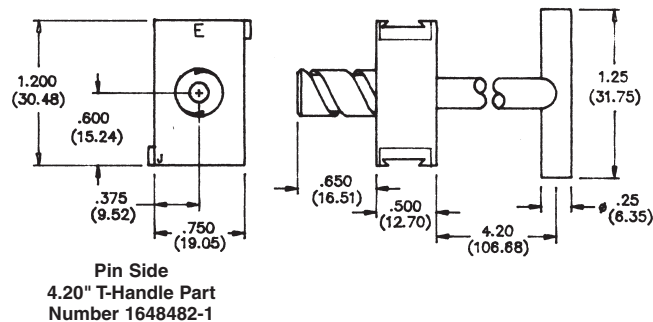
Specifications: Guide pin type 303 Stainless Steel, passivated



J Modules — Jackscrew Locking Module

Note: Select socket side to match desired orientation of T-handle in locked position

Specifications: Corrosion resistant Steel



Note: All part numbers are RoHS compliant.

Domino Series Connectors (Continued)

K Modules — Electrically Active Ground/Guide Module

Note: May be turned through 180 in the horizontal plane. Use Crimp Tool PN 1766453-1

Specifications: Contact rating 40 Amps UL, 15 Amps CSA, 250V; Fully loaded module nominal forces: insertion 3.0 lbs, extraction 1.3 lbs



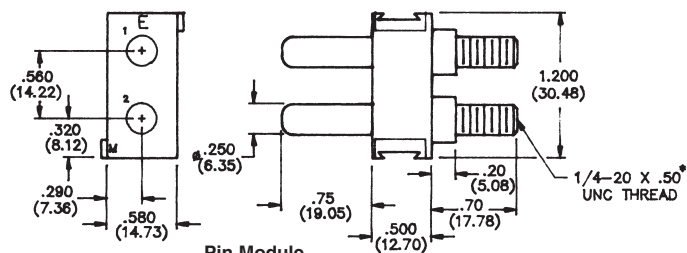
Guide Pin
10 AWG Crimp
Part Number 6648508-1



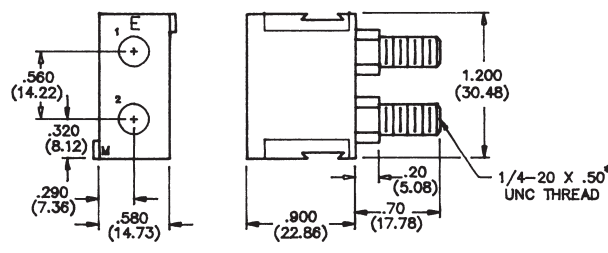
Guide Socket
10 AWG Crimp
Part Number 6648476-1

M Modules — Pre-installed Dual In-Line Crown Pin & Socket

Specifications: Contact rating 125 Amps UL/CSA, 250V; Fully loaded module nominal forces: insertion 14.9 lbs, extraction 9.8 lbs



Pin Module
Ext. Threaded
Part Number 6648499-1



Socket Module
Ext. Threaded
Part Number 6648454-1

Recommended torque value 40 lb.in (4.52 N.m)

R Modules — 2 x 1/4" Power Contacts

Note: Supplied without contacts; available contacts: Crimp insertable/removable, Ext. Threaded insertable/non-removable, consult Tyco Electronics for contact part numbers and available Double Crown option

Specifications: Contact rating 150 Amps UL, 110 Amps CSA, 250V; Fully loaded module nominal forces: insertion 9.4 lbs, extraction 6.0 lbs



Pin Module
(without contacts)
Part Number 6648515-1



Socket Module
(without contacts)
Part Number 6648457-1

Spacer Module — Non-electrical

Note: any module may be ordered without contacts for use as spacers; consult sales engineer for options and part numbers.

Note: All part numbers are RoHS compliant.

Domino Series Connectors (Continued)

Domino Assembly Mounting Accessories



Screw Part Number 1766829-1, Steel



Locking Rail Part Number 1648990-1,
Aluminum alloy, gold anodized finish, 36" length.
Requires cutting to size.

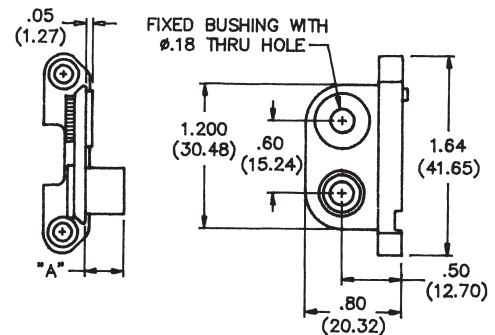
Locking Rail (at 1' interval)
Part Number 1650469-1

End Caps — Zinc die cast, CRS hardware, trivalent chromate finish

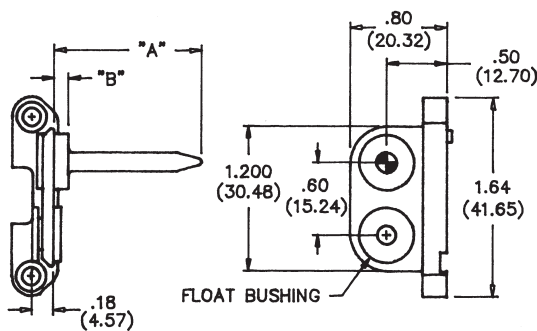
End caps secure the modules when screwed into the locking rails providing rigid assembly and a means of mounting assembly to frames, bulkheads, etc. Float-mount styles correct for misalignment during mating. Any end cap may be used to mount either pin or socket sides.



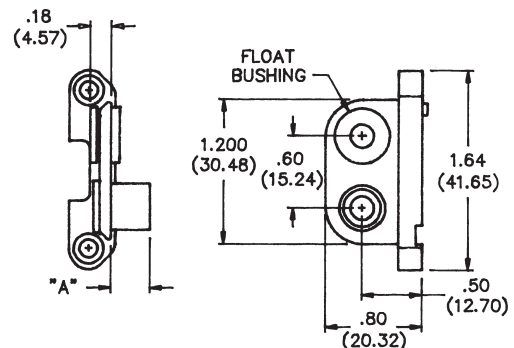
Fix-Mount, Guide Pin
Part Number 6648259-1
A = 1.22 (30.98), B = .275 (6.98)



Fix-Mount, Guide Socket
Part Number 6648263-1
A = .175 (4.44)



Float-Mount, Guide Pin
Part Number 6648251-1
Standard
A = 1.22 (30.98), B = .275 (6.98)
Part Number 6648253-1
L-Module
A = 1.62 (41.14), B = .125 (3.17)



Float-Mount, Guide Socket
Part Number 6648252-1
Standard
A = .175 (4.44)
Part Number 6648254-1
L-Module
A = .325 (8.25)

Note: All part numbers are RoHS compliant.

Domino Series Connectors (Continued)

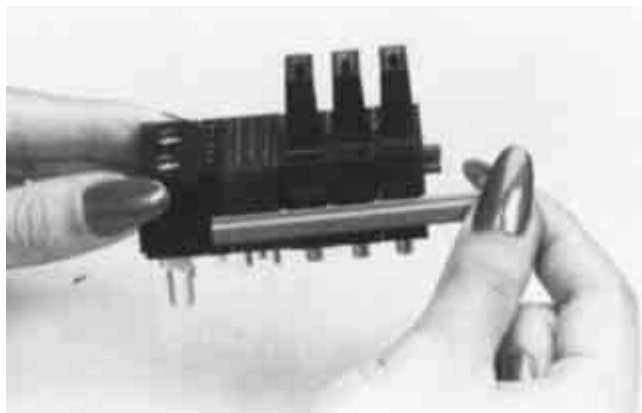
Domino Module Assembly Process



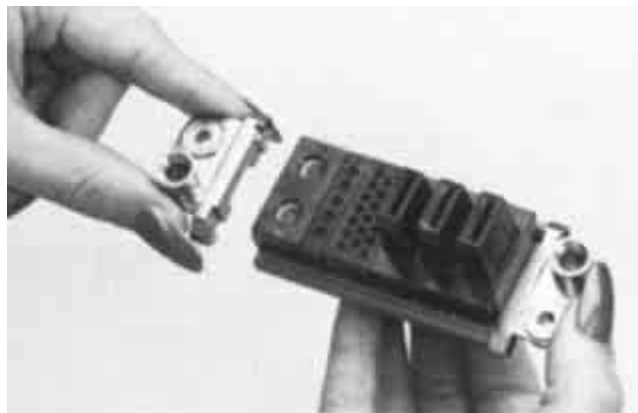
1. Align modules in desired order.



2. Measure length of assembly, and add .100" (2.54 mm) to determine overall rail length. Cut rails to length.



3. Slide locking rails into position on both sides of module assembly via the molded rail tracks.



4. Position end caps over locking rail ends and secure using Phillips head screws.

Domino Connector Layout Form

Instructions

1. Indicate the connector layout by filling in the Module letter for each module required in the boxes below, one per box. Use one form per mated pair.
2. Contacts are required for most modules, and are sold separately. Please see the High Current Drawer Section Contacts for specific part numbers.
3. The left to right order of the modules should match the **mating face views** of the connector.
4. Sign, date and send the completed form to your local Tyco Electronics Sales Engineer.

Upon receipt of this form, Tyco Electronics will generate a Customer Drawing for you to check and approve prior to connector production.

Pin Side:

--	--	--	--	--	--	--	--	--	--

Socket Side:

--	--	--	--	--	--	--	--	--	--

A Modules 3 x #12 Power Contacts Hot Plug		B Modules 2 x #8 Power Contacts		C Modules 20 x #20 Signal Contacts		D Modules 5 x #16 Power Contacts		E Modules 14 x #16 Power Contacts		G Modules Non-Electrical Guide Modules			
												J Modules Jackscrew Locking Module	
K Modules Electrically Active Guide/ Ground Module				M Modules Pre-Installed Dual In-Line Crown Pin & Socket		R Modules 2 x #14" Power Contacts							

Domino Mounting Accessories	
 Screw (Steel) Part Number 1766827-1	 Locking Rail Aluminum Alloy, 36" length (must cut to size) Part Number 1648990-1 Locking Rail, 1' Interval Part Number 1650469-1



Fix-Mount End Cap
with Guide Pin



Float-Mount End Cap
with Guide Pin

Contacts

Please reference Power Connectors & Interconnection Systems Catalog 1773096 for contact part numbers.

Part Number	Quantity

Part Number	Quantity

Note: All part numbers are RoHS compliant.

HTS Power Connectors

Product Facts

- Heavy-duty, rectangular, multiple-position, pin and socket connectors
- Current rating: 10-500 A
- Voltage rating: 1-1.4 kV
- Number of contact positions: 1 through 216
- Connectors are designated by four components: base and hood, and male and female inserts
- Contact inserts provide for three types of wire termination: screw (no crimp tool required), crimp (higher pin count), and cage clamp (fastest)
- HE Series inserts (screw terminated) are the most popular
- Bases provide environmental (IP 55, 65 and 68) and electrical protection (NEMA 4 and 4X)
- Bases share an industry standard panel cutout and mounting hole pattern
- Hoods offer top, side, or angled cable entry. Hoods are tapped to accommodate metric or PG fittings
- Automated tooling matched to contact
- DIN/VDE, UL, CSA and SEV approved



HTS power connectors are heavy-duty, rectangular, multiple-position, pin and socket connectors. They are commonly referred to as "rectangular" or "European metal shell" connectors.

HTS connectors are designated by four components: base and hood, and male and female inserts. The designation is driven by electrical specifications; pin count and current rating define the inserts needed. From 1 to 216 contact positions are available. Current ratings range from 10-500 A.

The appropriate housing size (1-12) to accommodate selected inserts is then defined. Housing selection criteria include: base mounting style, latch type, hood cable entry location, and hood gland size. The most popular housing sizes are: Shell Size 1 (3 or 4 positions), Shell Size 3 (6 positions), Shell Size 6 (16 positions), Shell Size 8 (24 positions), and Shell Size 5 (25 positions).

HTS connectors have many applications: industrial machinery (automotive, plastics, semiconductors, material handling, packaging and printing), and railroad and mass transit (A/C and brake subsystems, power transformers, door systems, switches and signals, and drive motor enclosures).

For more information on the entire line of HTS heavy-duty connectors, see Catalog 889745-2.

HTS Power Connectors (Continued)

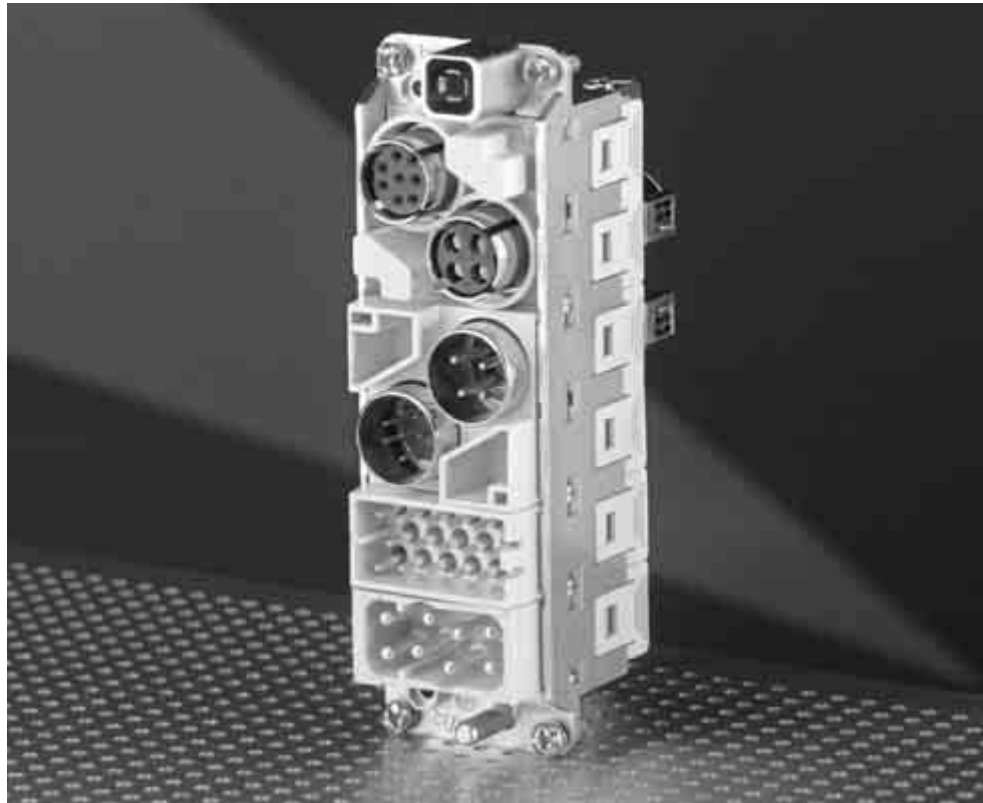
Contact Inserts

Series HVS

- High Variable System
- Zinc Frames Size 3 to 8 (acc. to Housing)
- For up to 6 Single Modules

Material

- PBT
- Flammability Rating:
acc. UL 94 V-0



To offer a maximum of flexibility and reliability with a minimum of installation or maintenance effort Tyco Electronics developed the HVS product range (high variable system).

This system enables customers to build their own application specific connection and due to the combination variety of the different modules customers benefit in terms of reduced costs (cost efficiency) and less mounting space.

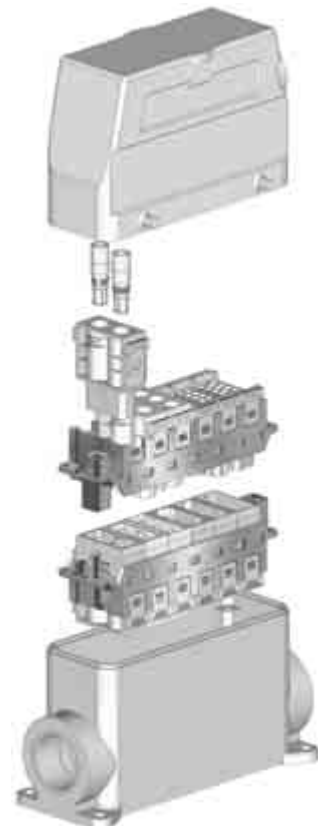
The HVS range comprises more than 25 different modules and the particular zinc frames which can then be mounted into all standard hoods and housings from Tyco Electronics. There is no tooling needed to put the modules in and out of the frame due to lever snap-in technology.

Up to 6 single modules can be used in a size 8 frame whereby the customer can individually define the combination of modules.

Signal, high current and high voltage, high density, Fire Wire, RJ45, USB, Coax, twisted pair, high speed and also pressure air are only some of the different connector modules. According to the insert contacts can be used individually.

In combination with the Tyco Electronics' hoods and housings IP ratings of IP 65 or even IP 68 can be realized. Customers also benefit from EMI- and corrosion-protection dependent on housing.

A large variety of customer specific applications complete the product range.



For more information on the entire line of HTS heavy-duty connectors, see Catalog 889745-2.

RAPID LOCK Quick Connect/Disconnect Bus Bar Connectors

Product Facts

- Replaces power lugs
- Locking feature “snaps” each contact to mating pin
- Up to 250 Amps per contact
- CROWN BAND connector technology provides low contact resistance

Typical Applications

- Power Distribution Systems
- Recognized under the Component Program of Underwriters Laboratories, File No. E28476



The RAPID LOCK connector is a single-pole, quick connect/disconnect replacement for lug connections, used in bus bar and backplane power distribution applications. RAPID LOCK connectors allow a reliable and safe connection, as well as better serviceability, than bolt-fitted lugs. The cable mounted sockets have a right-angle configuration, and feature an insulator cap that provides the retention mechanism on the pin. The pin contacts can be attached to a bus bar by screw or swage, and to a backplane by press fit and backup screw.

Secure Power Distribution

By replacing power lugs fitted using nuts and bolts, the RAPID LOCK connector offers an extremely secure interconnect mechanism that totally frees the power distribution system from the risk of loose connections, which can cause arcing.

Safety Locking Feature

A locking feature is provided on the pins for protection against accidental unlatching of the cable. Although connection of the cable is easily performed by hand, disconnection requires a simple tool to provide the leverage needed to overcome the locking feature.

Improved Ease of Service

Service in the field becomes very easy with RAPID LOCK connectors because there are no nuts and washers to lose in the equipment. The RAPID LOCK connector is available with red or black color insulators.

CROWN BAND Technology

The RAPID LOCK connector enjoys all the benefits of the ELCON CROWN BAND technology, providing a stable connection with excellent mechanical and electrical performance with ratings up to 300 Amps depending on wire gauge and application.

Note: All RAPID LOCK Products in this section are RoHS compliant.

Note: All part numbers are RoHS compliant.

RAPID LOCK Quick Connect/Disconnect Bus Bar Connectors (Continued)

RAPID LOCK Connectors Ordering Information

Size	Crimp Size	Part Numbers				
		Socket			Pin	
		Black	Red	Blue	Swage	Screw
#8	AWG #8	6648228-1	6648228-2	N/A	6648221-1	—
	AWG #12	6648237-1	6648237-2	N/A	6648221-1	N/A
	AWG #6	1766484-1	1766484-2	N/A	6648221-1	—
#4	AWG #8	6648235-1	6648235-2	N/A	6648222-1	—
	AWG #4	6648236-1	6648236-2	N/A	6648222-1	6648224-1
	AWG #6	6648239-1	6648239-2	N/A	6648222-1	—
#2	AWG #0	6648234-1	6648234-2	N/A	6648223-1	6648226-1
	AWG #2	6648238-1	6648238-2	N/A	6648223-1	6648226-1
12 mm	95 Sq. mm	N/A	1857547-1	1857547-2	1857523-3	N/A

Size	Insulation Boot			
	Black	Red	Grey	Blue
#4/#8	1651003-1	1651003-2	1651003-3	1651003-4
#2	1766600-1	1766600-2	1766600-3	1766600-4

Product Specifications

Materials	
Insulator	Thermoplastic, UL 94V-0 flammability rated
Socket Contact Body	Copper alloy, plated Silver over nickel
CROWN BAND	Beryllium Copper, plated Gold (30 micro inches minimum) over nickel
Pin Contact	Copper alloy, plated Silver over nickel
Electrical	
Current Rating @ 30°C T-rise	Size 8 — 50 Amps on 8 AWG wire Size 4 — 115 Amps on 4 AWG wire Size 2 — 145 Amps on 2 AWG wire Size 12 mm — 250 Amps on 95 mm ² wire
Contact Resistance	Size 8 — 0.5mΩ Size 4 — 0.15 mΩ Size 2 — 0.12 mΩ
Voltage Drop	See graphs
Mechanical	
Removal Tool	Part Number 1857376-1

Note: For more information about tooling, call Tooling Sales at 888-777-5917, (717)-810-2080 or e-mail toolingsales@tycoelectronics.com.

Test Data

Shown below is current versus temperature rise of the five different available socket sizes.



Shown below is current versus voltage drop performance of the five different available socket sizes.



Note: All part numbers are RoHS compliant.

RAPID LOCK Quick Connect Sockets and Pins

Cable Mounted Sockets

RAPID LOCK sockets are crimped to AWG #4, #6 or #8 size cable depending on the application requirements. Envelope dimensions are common except for the crimp barrel diameter.



Part Number	Size	Dimensions			Cable AWG
		C	D	E	
6648228-X	#8				8
6648237-X		1.080	.500	.500	12
1766484-X		27.43	12.70	12.70	6
6648235-X	#4	1.08	.500	.500	8
6648236-X		27.43	12.70	12.70	4
6648239-X					6
6648234-X	#2	1.280	.490	.640	0
6648238-X		32.51	12.45	16.26	2
1857178-X					1/0
1857547-X	12.0 mm	1.920	.930	.930	3/0
		48.70	23.70	23.70	

Note: X refers to available color variants.

Pin Contacts

RAPID LOCK pin contacts are offered in either swage or screw & washer mounting options for .125" (3.18 mm) or 3 mm (.118") thick PCB or bus bars. Consult Tyco Electronics Customer Service for other bus bar and backplane thicknesses and designs.

Press Fit Pin Contacts

Attach Type	Pin Size	Mounts to
Screw and Washer	#4	Bus bar/Backplane
		Bus bar
Swage	#4	Bus bar

Note: All part numbers include attachment hardware (screw, washer, etc.)

Swage-Mount Pin



Part Number	Size	Dimensions	
		A	B
6648221-1	#8	.142	.550
		3.81	13.97
6648222-1	#4	.250	.550
		6.35	13.97
6648223-1	#2	.375	.550
		9.53	13.97
1857523-3*	12.0 mm	.470	.850
		12.00	21.70

*Requires washer Part Number 1857513-2

Screw-Mount Pin



Part Number	Size	Dimensions	
		A	B
6648224-1	#4	.250	.550
		6.35	13.97
6648226-1	#2	.375	.550
		9.53	13.97

Note: All part numbers are RoHS compliant.

Custom RAPID LOCK Connector Products

In addition to the flexibility offered with standard RAPID LOCK connector products, the basic technology and standard components may also be packaged to suit specific customer needs. Some examples of custom packages are given below.

Snap-Lock Sockets

Discrete pins are generally offered with or without a locking feature. A locking feature for a discrete socket is provided by a special two piece molding (94 V-0). This enables the socket to snap over a locking pin, and provides a 5 lb withdrawal force. The molding will also lock into a panel or holder of .125 (3.18) thickness.



Part Numbers	Wire Size	Color
1643279-1	8 AWG	Black
1643279-2		Red
1643279-3		Blue
1651766-1	4 AWG	Black

Press-Fit Discrete Contacts

Pins and sockets of the type shown are designed for press-fit to board or bus bar, and allow plug-in removal of a variety of board-mount components, discrete contacts, and flat-pack power supplies. Each socket contains a CROWN BAND contact, providing high current capacity and minimum loss, and accommodating misalignment.



Note: All part numbers are RoHS compliant.

AMP Power Taps

Product Facts

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



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

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

The variety of available power taps allow for various installation schemes. The uninsulated tap and low profile tap can be used in bus bar pattern. The high profile and low profile taps offer insulation protection from other components. The high current versions provide a greater power

density option with current ratings from 10 Amps on the 2 position in-line 6.35 [.250] tab tap up to 40 Amps on the 8 position dual 6.35 [.250] tab tap.

All AMP power tap configurations are easily inserted into the pc board with a simple Tyco Electronics or customer supplied tool.

AMP Power Taps (Continued)

Material and Finish

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

Contact — Copper alloy, bright
tin-lead or tin plated

Screw — Plated steel

Electrical and Mechanical Characteristics

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

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

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

Technical Documents

Product Specification

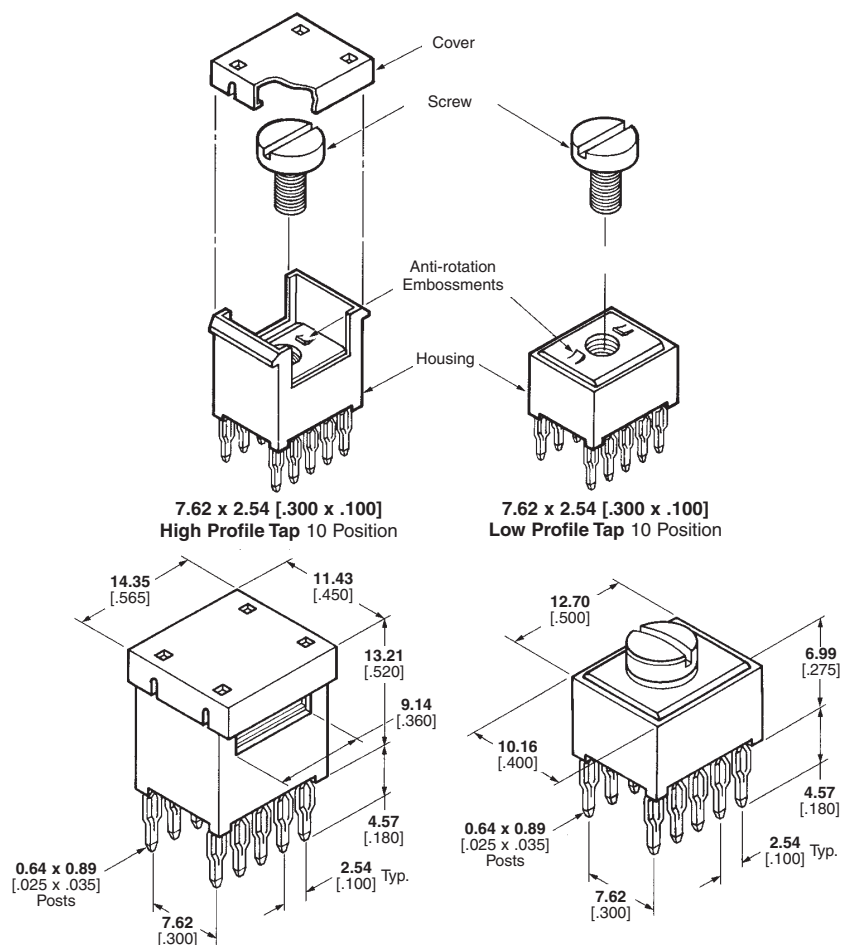
108-11030 Tap, Power Distribution

Application Specification

114-11000 Tap, Power Distribution

Handbook

5697 Guide to Application of
ACTION PIN Connectors



Tap Version	PCB Thickness	Description	Screw Hole Size	Part Number	
				Tin Lead	Tin
High Profile	1.57–3.18 .062–.125	Housing and Contact Assembled With Screw ^{1,2}	6-32	55557-4●	5055557-4
Low Profile	1.57–3.18 .062–.125	Housing and Contact Assembled With Screw ²	6-32	55556-4●	5055556-4
Low Profile	1.57–3.18 .062–.125	Housing and Contact Assembled With Screw ^{2,3}	6-32	55673-2●	5055673-2
Low Profile	1.57–3.18 .062–.125	Housing and Contact Assembled Without Screw	M4	55556-9●	5055556-9

¹Cover not Assembled

²Screw not Assembled

³No Anti-rotational Embossments

Note: Part Numbers are RoHS compliant except: ● Indicates "5 of 6 compliant" (lead in solderable interface only).

AMP Power Taps (Continued)

Material and Finish

Contact—Copper alloy, post plated
bright tin-lead or tin plated

Screw—Stainless steel, passivated

Electrical and Mechanical Characteristics

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

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

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



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

High Current* Power Taps

*Up to 20 Amps

Material and Finish

Contact — Phosphor bronze, tin-lead
or tin plated

Screw — Stainless steel, passivated

Washer — Stainless steel

Electrical and Mechanical Characteristics

Current Rating — 20 Amps max.

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

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



Size	PCB Thickness	Dimensions				Description	Part Number	
		A	B	C	D		Tin Lead	Tin
4 Position	1.57-3.18 .062-.125	9.09 .358	10.95 .431	5.08 .200	10.16 .400	With Screw, Washer	213815-1●	5213815-1
						Without Screw	216906-1● ¹	—
6 Position	1.57-3.18 .062-.125	9.09 .358	10.95 .431	2.54 .100	10.16 .400	With Screw, Washer	213816-1●	5213816-1
						Without Screw	216907-1● ¹	—

¹No Anti-rotation Embossments featured on High Current Taps. Therefore, if application requires product supplied without washer and screw, use of lock-washers with a high surface contact area are strongly recommended.

For High Current and FASTON Taps

Use with Hand Press 677430-1

Recommended PC Board Layout

Drilled Hole Diameter—
1.60±0.03 [.063±.001]

Cu Thickness—
0.03-0.08 [.001-.003]

SnPb Thickness—
0.004 min. [.0002 min.]



Finished Hole—
1.36-1.54 [.054-.061]

After Reflow—
1.36-1.54 [.054-.061]

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

Note: Part Numbers are RoHS compliant except: ● Indicates "5 of 6 compliant" (lead in solderable interface only).

AMP Power Taps (Continued)

*Up to 5 Amps per pin

Mating Connectors FASTON Receptacles

Material and Finish

Contact — Phosphor bronze, post plated tin-lead or tin plated

Screw — Stainless steel, passivated

Washer — Stainless steel

Electrical and Mechanical Characteristics

Current Rating — 5 Amps max. per pin

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

For Recommended PC Board Layout, see page 170.



Style	PCB Thickness	Dimensions				Description	Part Number	Receptacle Mating
		A	B	C	D			
I	1.39 x 1.54 .055 x .061	13.50 .531	10.75 .423	18.50 .728	2.54 .100	2.8 x 0.80 .110 x .031 Tab	338429-2	Positive Lock
II	1.57 x 3.18 .062 x .125	5.08 .200	13.49 .531	—	—	6.35 x 0.81 .250 x .032 Tab	216926-1	Positive Lock
III	1.57 x 3.18 .062 x .125	2.54 .100	13.49 .531	—	—	6.35 x 0.81 .250 x .032 Tab	216843-1	Positive Lock
IV	1.57 x 3.18 .062 x .125	10.16 .400	5.08 .200	13.49 .531	10.95 .431	1-6.35 x 0.81 .250 x .032 Tab	216905-1 ¹	Positive Lock
						2-2.79 x 0.81 .110 x .032 Tab		
V	3.18 .125	7.62 .300	2.54 .100	12.32 .485	12.70 .500	2-6.35 x 0.81 .250 x .032 Tab	167892-3 ²	FASTON Rcpt.
						With Hole	167892-6 ²	Positive Lock

¹No Anti-rotation Embossments featured on High Current Taps. Therefore, if application requires product supplied without washer and screw, use of lock-washers with a high surface contact area are strongly recommended.

²Phosphor Bronze, post plated matte tin

Note: All part numbers are RoHS compliant.

AMP Power Taps (Continued)

Application Tooling/ PCB Layout

For Standard Threaded Taps Only

Recommended PC Board Layout

Drilled Hole Diameter—
.0453±.001 [1.15±0.03]

After Plating

.037-.043 [0.94-1.09]

After Reflow—

.036-.043 [0.91-1.09]

Installation and Extraction Tooling

Impact Insertion Tool Number

313102-1

(Insertion Tip No. 58133-1 required)



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



Extraction Tool
Part Number 68380-1

For High Current and FASTON Taps

Use with Hand Press **677430-1**

Recommended PC Board Layout

Drilled Hole Diameter—
.063±.001 [1.60±0.03]

Cu Thickness—

.001-.003 [0.03-0.08]

SnPb Thickness—

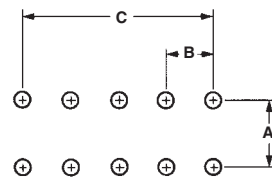
.0002 min.[0.004 min.]

Finished Hole—

.055-.061 [1.39-1.54]

After Reflow—

.054-.061 [1.36-1.54]



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

Installation Tooling

Type	Part Number	Upper Tool	Lower Tool
High Current 4 & 6 Positions	216906-1 216907-1	432848-1	433600-2 or 432130-2
High Current Style I, II	216926-1 216843-1	432845-1	433600-2 or 432130-2
High Current Style III	216905-1	432847-1	433600-2 or 432130-2
High Current Style IV	5167892-3 167892-6	432849-1	433600-2 or 432130-2

Note: All part numbers are RoHS compliant.