BDIVERSE
Supply chain improvement & entrepreneurship

ANDERSON POWER™

Powerpole® Connectors

PP75 - Up to 120 Amps



PP75 with Mounting Wings

PP75 series Powerpole® housings can be used for wire-to-wire, wire-to-board, and wire-to-busbar applications. Wire sizes from 16 to 6 AWG (1.3 to 13.3 mm²) offer power capabilities up to 120 amps per pole. Locking housings offer the capability to secure Powerpole® housings to each other and to mounting pads. Housings made from chemical resistant (CR) resin withstand industrial solvents better than standard housings.

Large Wire Range Accommodates up to 6 AWG (10 mm²) Wire

Reducing bushings allow as small as 16 AWG (1.5 mm²) wire to be used

Wire, PCB, and Busbar Contacts
Allows one connection system to meet multiple needs

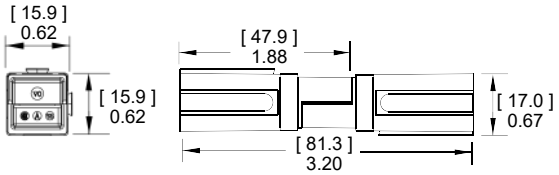
Mini-Powerclaw PCB Contacts Minimize PCB Footprint
Removes the PP75 housing from the board side

PP75 ORDERING INFORMATION

PP75StandardHousings

The second smallestPowerpole® housing can be used with wire contacts up to 6 AWG (10 mm²) as well as PCB and busbar contacts.

Description	Part Numbers	
Minimum Quantity	1,000	100
Red	5916G7-BK	5916G7
Green	5916G6-BK	5916G6
Black	5916G4-BK	5916G4
White	5916G5-BK	5916G5
Blue	5916-BK	5916
Yellow	5916G15-BK	5916G15
Orange	5916G14-BK	5916G14
Gray	5916G16-BK	5916G16

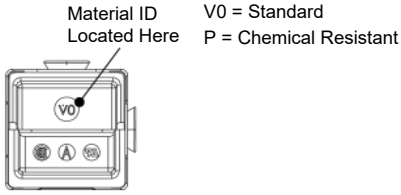


Front View Mated Length

PP75 Chemical Resistant (CR) Housings

Has the same form and dimensions of the standard PP75 housing in a chemical resistant PBT / PC blend housing. Suitable for use to -40°C.

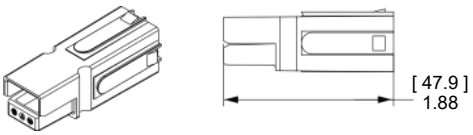
Description	Part Numbers
Minimum Quantity	1,000
Red	P5916G7-BK
Black	P5916G4-BK
White	P5916G5-BK
Blue	P5916-BK



PP75 Locking Dovetail Housings

Offers dovetails for stacking housingsthat have a locking feature to prevent housings separating. Can mate to standard and chemical resistant housings, but cannot be stacked with them.

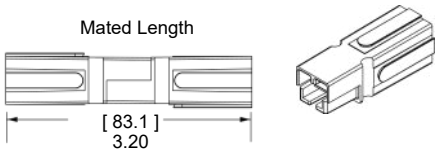
Description	Part Numbers	
Minimum Quantity	1,000	100
Red	75LOKRED-BK	75LOKRED
Green	75LOKGRN-BK	75LOKGRN
Black	75LOKBLK-BK	75LOKBLK
White	75LOKWHT-BK	75LOKWHT
Blue	75LOKBLU-BK	75LOKBLU
Gray	75LOKGRA-BK	75LOKGRA



PP75 Premate Ground Housings

Offers a first-mate, last-break connection when stacked together with PP75 housings. Stacks together with PP75 standard and chemical resistant housings. Housings are mechanically keyed to prevent cross mating with power positions.

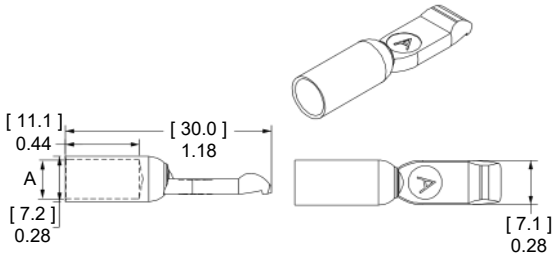
Description	Part Numbers	
Minimum Quantity	1,000	100
Green	5927G6-BK	5927G6



PP75 Silver Plated Wire Contacts

Silver plated contacts offer the best electrical performance and durability up to 10,000 mating cycles. See reducing bushings in accessory section for smaller wires.

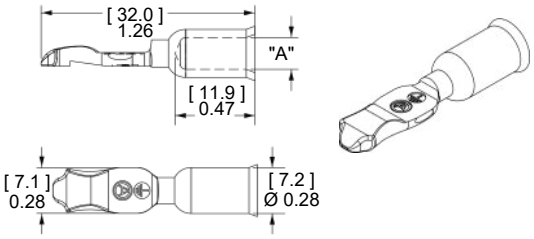
AWG	mm²	Mating Force	Loose Piece Part Numbers		Dimensions - A - inches	mm
Minimum Quantity			1,000	100		
6	13.3	Low	1307-BK	1307	0.22	5.59
6	13.3	High	5900-BK	5900	0.22	5.59
8	8.4	High	5952-BK	5952	0.19	4.83
12 to 10	3.3 to 5.3	Low	5953-BK	5953	0.14	3.56
12 to 10	3.3 to 5.3	High	5915-BK	5915	0.14	3.56



PP75 Premate Ground Wire Contacts

Silver plated contacts for use with the PP75 Premate Ground Housing. Rated to 10,000 mating cycles.

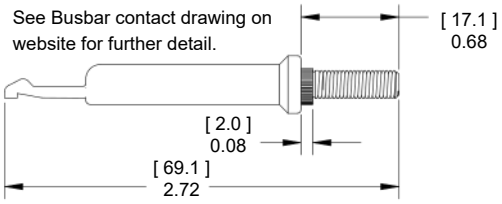
Type	AWG	mm²	Loose Piece Part Numbers		Dimensions - A - inches	mm
Minimum Quantity			1,000	100		
Individual	6	13.3	1875G1-BK	1875G1	0.22	5.59
Individual	8	8.4	1875G2-BK	1875G2	0.19	4.83
Individual	12 to 10	3.3 to 5.3	1875G3-BK	1875G3	0.14	3.56



PP75 Silver Plated Busbar Contacts

Provide a quick disconnect input or output busbar connection. Busbar contacts are for mating with wire contacts only. Part number 75BBS includes lock nuts. Locknuts must be ordered separately for B01915P1.

Type	Thread	Mating Force	Part Numbers		
Minimum Quantity			1,000	20	10
Busbar	10-24	High	B01915P1	-	75BBS
Lock Nut	10-24	-	H1216P8	-	-

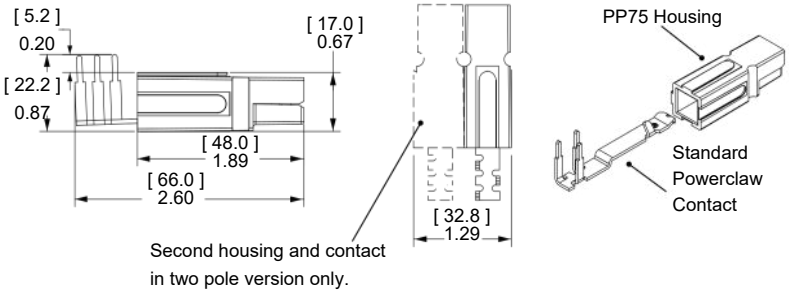


55A RightAngleStandardPowerclawPCBContacts

Standard Powerclaw contacts are for use inside a PP75 housing and provide a color-coded right angle connection to the PCB.

Description	Loose Piece Part Numbers	
Minimum Quantity	500	100
Tin Plated	PC5930T-BK	PC5930T
Silver Plated	PC5930S-BK	PC5930S

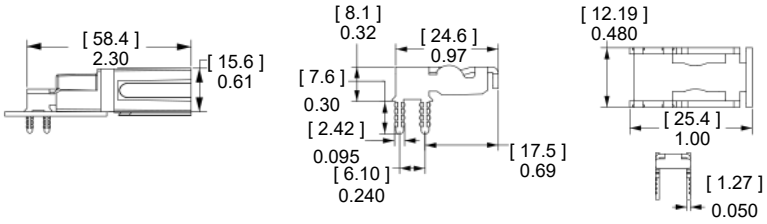
See PCB contact drawing on website for further detail.



55A Right Angle Mini Powerclaw PCB Contacts

Right angle Mini Powerclaw contacts can be used onthe PCBedge without a PP75 housing on the PCB side. A self polarizing design only allow PP75 wire housings to mate to PCB contacts one way.

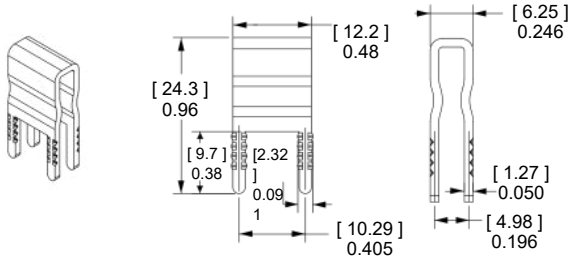
Description	Loose Piece Part Numbers	
Minimum Quantity	1,000	100
Tin Plated	PC5934T-BK	PC5934T
Silver Plated	PC5934S-BK	PC5934S



55A Vertical Mini Powerclaw PCB Contacts

Vertical Mini Powerclaw contacts save space by not requiring a PP75 housing on the PCB side. The guide housing is required for 2 pole applications to provide a polarized connection. (See PP75 accessories).

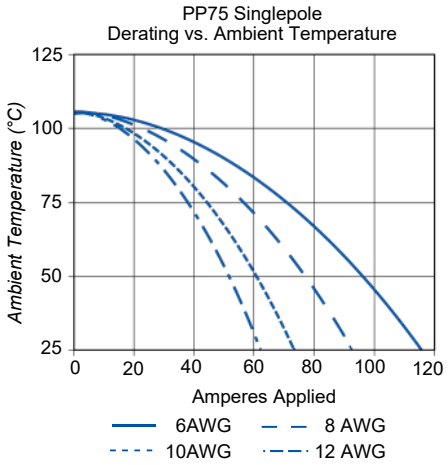
Description		Loose Piece Part Numbers
Minimum Quantity	1,500	100
Tin Plated	PC5933T-BK	PC5933T
Silver Plated	PC5933S-BK	PC5933S

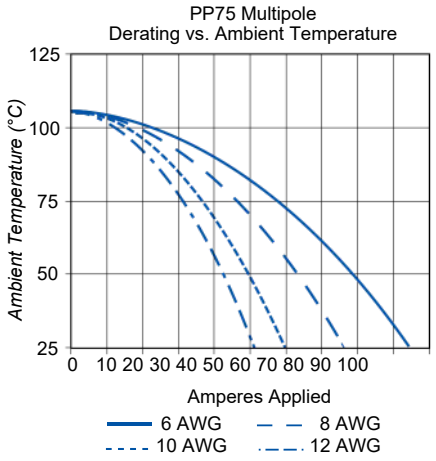


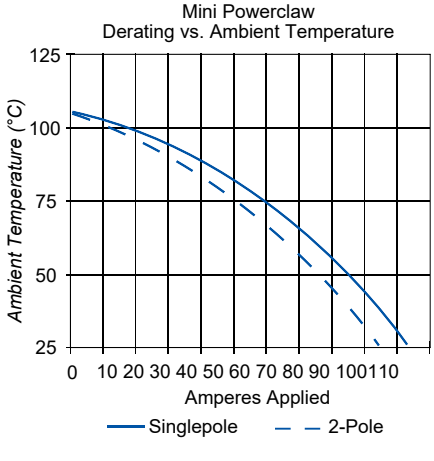
See PCB contact drawing on website for further detail.

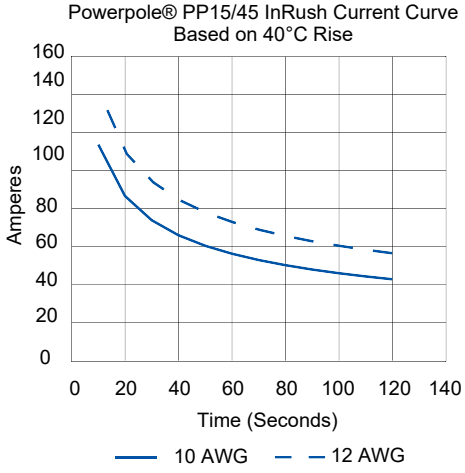
PP75 CONNECTOR TEMPERATURE CHARTS- Temperature rise charts are based on a 25°C ambient temperature.

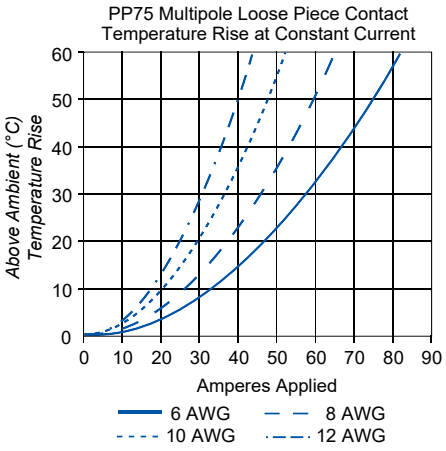
Current - Temperature Derating per IEC 60512-5-2 Test 5B

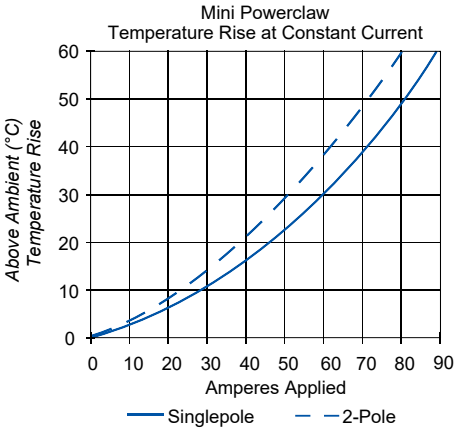












NOTE: Powerclaw charts are based on 8 AWG equivalent copper foil on board side, mated to 6 AWG conductor on wire side.

PP75 SPECIFICATIONS

ELECTRICAL

Current Rating Amperes [1]	**UL 1977**	**CSA**
Wire-to-Wire (6 AWG)	120 55	70
Wire-to-PCB (6 AWG)	75	50
Wire-to-Busbar (6 AWG)		

Voltage Rating AC/DC	
UL 1977	600

PCB Connector Recommended Voltage 3 per IEC 60950-1 Table 2L Pollution Degree 2	
Mini Vert. Contact Adjacent Poles	220
Mini Horiz. Contact Adjacent Poles	200
Standard Contact Adjacent Poles	635

Dielectric Withstanding Voltage	
Volts AC	2,200

Avg. Mated Contact Resistance Milliohms 1	
Wire Contact with 1 1/4" to 6 AWG	0.200
PCB Contact-to-Contact	0.500

UL Hot Plug Current Rating Amperes - 250 Cycles at 120V DC 6	
Wire-to-Wire	50A
PCB- to-Wire (Vertical Mini Powerclaw)	40A

UL Ground Short Time Current Test - 75A Premate Ground	
1530 Amps, 6 AWG Wire	6 Seconds

MATERIALS

Housing Standard Plastic Resin	
Chem. Resistant Resin	Polycarbonate
Contact Retention Spring	Polycarbonate / PBT blend
Housing Flammability Rating	Stainless Steel
UL94	
Glow Wire	V-0
Contact	960°C (GWFI) / 800°C (GWIT)
Base	
Wire Plating	Copper Alloy
PCB Plating	Silver
Contact Termination Methods	Sn or Ag over Ni
Crimp 4	
Hand Solder	Wire Contacts Wire
Solder Dip	and PCB Contacts PCB
Wave Solder	Contacts PCB Contacts
	Busbar Contacts
Wrench / Socket	

MECHANICAL

Wire Size Range	**AWG**	**mm²** 1.3 to
Wire Contacts with Bushings	16 to 6	13.3

Max. Wire Insulation Diameter	**in.**	**mm**
	0.437	11.100

Operating Temperature [2]	**°F**	**°C**
Standard & Ground	-4° to 221°	-20° to 105°
Chemical Resistant*	-40 to 221°	-40° to 105°

*Chemical resistant material not available for PCB guide housings

Mating Cycles No Load by Plating	**Silver (Ag)**	**Tin (Sn)**
Wire and PCB Contacts	10,000	1,500

Avg. Mating / Unmating Force	**Lbf.**	**N**
Wire -to-Wire Low Force Contacts	5	22
Wire-to-Wire High Force Contacts	7	31
Standard Powerclaw to Wire	7	31
Mini Powerclaw to Wire	4	17

PCB Specifications	
Mounting Style	Plated Through Hole
Max PCB Thickness - in. (mm)	Standard: 0.15 (3.81) Mini: 0.25 (6.35)
Recommended Traces	8 AWG Cross Section

Min. Contact / Spring Retention Force	**Lbf.**	**N**
Wire Housing	50	222

Min. Creepage / Clearance Distance PCB	**in.**	**mm**
Standard Powerclaw Adjacent Poles	0.260	6.6
Mini Vert. Powerclaw Adjacent Poles	0.087	2.2
Mini Horz. Powerclaw Adjacent Poles	0.079	2.0

Mechanical Shock 5		
MIL-STD-202	213 Condition A	50g's
Vibration High Frequency 5 MIL-STD-202	204 Condition A	10g's

c UL us File No. E26226 CSA Certified File No. LR25154 RoHS APP REACH APP

NOTE 1: See IEC 60664-1 for working voltage.
NOTE 2: Amp ratings are stated per position and based on all positions being fully loaded.

1 - Based on: 105°C rated or better cable of the largest size. Properly calibrated Anderson Power™ recommended tooling, and a 25°C ambient temperature. UL rating not to exceed the maximum operating temperature. CSA rating below a 30°C temperature rise.

2 - Limited by the thermal properties of the connector plastic housing.

3 - Without use of spacers to increase creepage and clearance distances.

4 - Use Anderson Power™ recommended tooling only. Alternate tools may adversely affect the performance of our connectors along with UL and CSA recognition.

5 - Tested with contact part number 5900.

6 - Based on 2 housings blocked together.

IEC INFORMATION

Connector Series	Configurations		Creepage / Clearance per IEC 60950-1	Material Group
PP75	**Single Pole**	Unmated	2.97 mm 2.97 mm	IIIa
		Mated	mm 2.97 mm	
	Stacked Powerpole®	Unmated	2.97 mm	
		Mated		

ATTRIBUTES	PP75
AMP Rating AC/DC	75
Voltage Rating AC/DC (Steady State)	250 V AC/DC (Operational)
Breaking Capacity - AMP Rating / Cycles	75 Amp / 10 Cycles
Voltage Rating (Breaking Capacity)	220 VDC
FINGER Safety - Mated Only	IEC 60529 - IP20
Wire Size Tested	16 mm^2
Contact Series Tested	5900
Climatic Testing (Cold, Heat & MFG)	IEC 60512 Test -11j, 11i & 11g
Cycle Life	IEC 60512 Test 9a - 5,000 Cycles
Mechanical Strength Impact	IEC 60512-5 @ 29.5 Inches - Dropped 8 Times
Temperature Range	-20°C to 105°C -4°F to 221°F

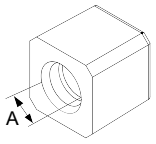
PROTECTION	
Touch Safety with Wire Contacts	
IEC 60529	IP10

POWERPOLE® PP75 ACCESSORIES

Strain Relief Grommets

Use forstrain relief in the back side of a PP75 housing. Wire gauge given for reference only, use grommet ID and wire OD to determine suitability in the end application.

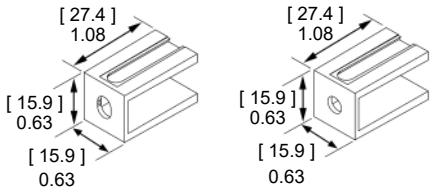
Description	Part Numbers	Dimensions - A - inches mm
Minimum Quantity	100	
6 AWG, Black	114411P2	0.35 8.89
8 AWG, Black	114411P1	0.25 6.35
10 to 12 AWG, Black	114411P3	0.17 4.32



Mounting Wing for Standard or CR Housings

Mounting wings can be used to secure dovetailed Powerpole® series housings by passing fasteners through the wings in either a horizontal or vertical orientation. Useful for sheet metal panels, printed circuit boards, and many other mounting surfaces. Fasteners not included.

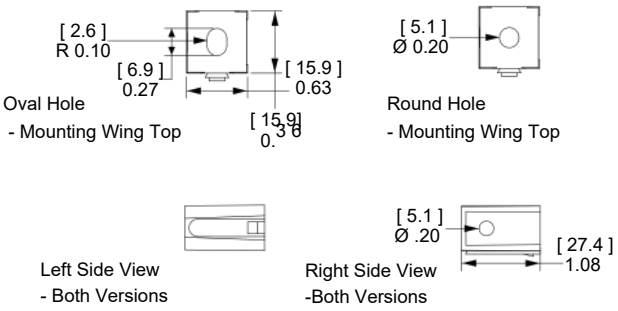
Description	Part Numbers	
Minimum Quantity	1,000	100
Blue, Round Hole	1399G20-BK	1399G20
Blue, Oval Hole	1399G7-BK	1399G7



Mounting Wing for Locking Housings

Mounting wings can be used to secure Powerpole® 75 series housings with locking dovetails by passing fasteners through the wings in either a horizontal or vertical orientation. Useful for sheet metal panels, printed circuit boards, and many other mounting surfaces. Fasteners not included.

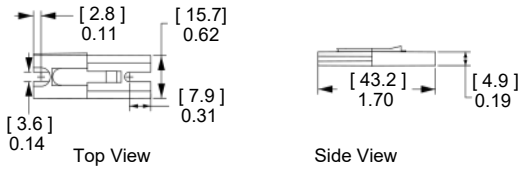
Description	Part Numbers	
Minimum Quantity	1,000	100
Blue, Oval Hole	75LOKWNGBLU-BK	75LOKWNGBLU
Blue, Round Hole	75LOKWNGBLU-R-BK	75LOKWNGBLU-R



Surface Mount for Locking Housings

Use to secure Powerpole® 75 series housings with locking dovetails to a flat surface. Useful for sheet metal panels, printed circuit boards, and many other mounting surfaces. Fasteners not included.

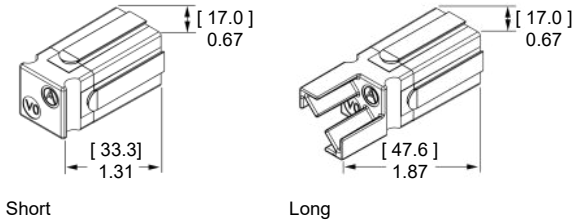
Description		Part Numbers
Minimum Quantity	1,000	100
Blue	75LOKSMTBLU-BK	75LOKSMTBLU



Spacer

Use to separate housings under high power to minimize power capability derating due to heat rise. They are recommended for squaring off a block of Powerpole® 75 housings to enable mounting accessories or retaining pins to be used. Combining long and short spacers opposite each other in a mated block adds keying features, or use two short spacers to avoid interference.

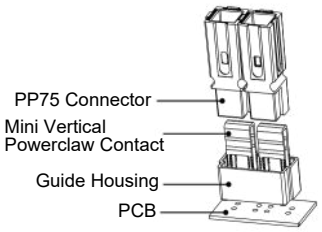
Description		Part Numbers
Minimum Quantity	1000	100
Red, Short	1399G23-BK	1399G23
Red, Long	1399G21-BK	1399G21



Guide Housings for Vertical Mini Powerclaw Contacts

Prevents polarity being reversed when a two pole PP75 block is mated to vertical miniPowerclaw contacts. Fastening hardware not included.

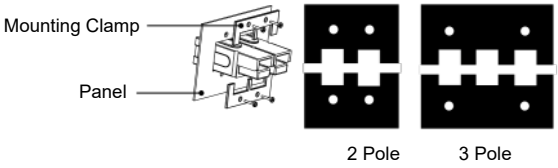
Description	Part Numbers	
Minimum Quantity	1,000	100
Black GuideHousing	PC-HSG-PP-BK	PC-HSG-PP



Mounting Clamp

Mounting clamps can be used for fastening a block of Powerpole® 75 series housings to a panel. Connector blocks must be a complete square for the clamps to work properly. Fastening hardware not included.

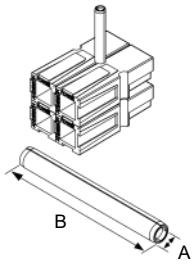
Description	Part Numbers
Minimum Quantity	50 sets of 2
2 or 4 Pole	1463G1
3 or 6 Pole	1463G2



Retaining Pins

Retaining pins are used to keep stacked Powerpole® 75 series housings from separating. Retaining pins are inserted in the circular opening between two housings stacked side by side. Dimension B is +/- 0.015 in or 0.38 mm.

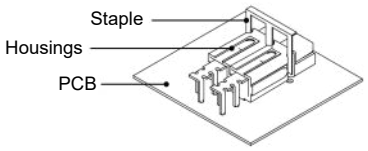
Description	Part Numbers		Dimensions - A - inches	Dimensions - A - mm	Dimensions - B - inches	Dimensions - B - mm
Minimum Quantity	1,000	100				
1 Block High 2	111812P7	110G19	0.196 / 0.207	4.98 / 5.26	0.560	14.220
Block High	111812P6	110G18	0.196 / 0.207	4.98 / 5.26	1.000	25.400



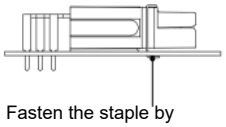
PCB Mounting Staples

Reducestrainon solder joints during mating and unmating. Staples bend over the underside of the PCB board to lock the housings in place. Staples are an interference fit with housings.

Part Number	Number of Stacked Powerpole® H x W
Minimum Quantity	100
PCSTAPLE-2	1 x 2



Slide staple over housings and into the holes in the board.

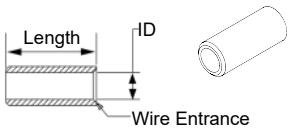


Fasten the staple by bending the leads on the bottom of the board.

Silver Plated Reducing Bushings

Use with contact partnumber 5900-BK or 1307-BK to allow a smaller wire to be used with the connector. Electrical capability is derated with smaller wire.

Contact Barrel Size AWG	Contact Barrel Size mm²	Wire Size AWG	Wire Size mm²	Part Numbers			Dimensions - ID - inches	Dimensions - ID - mm	Dimensions - Length - Inches	Dimensions - Length - mm
Minimum Quantity				3,000	1,000	100				
6	13.3	8	8.4	-	5912-BK	5912	0.18	4.57	0.45	11.43
6	13.3	12 to 10	3.3 to 5.3	5910-BK	-	5910	0.14	3.56	0.47	11.94
6	13.3	16 to 14	1.3 to 2.1	5913-BK	-	5913	0.09	2.29	0.47	11.94



Powerpole®

ToolingInformation - Anderson Power™ Applicators are Mechanical Feed Style and do not Require an Air Feed Kit.

Wire Size		Loose Piece Part Number		Loose Piece Contact Crimp Tools							
AWG	mm²	Tin Plating	Silver Plating	Hand Tool	OR	Pneumatic Bench Tool	+	Die	+	Locator	Number of Crimps
PP75											
6	13.3	N/A	1307	1309G4		1387G1		1388G6		1389G6	Single
			5900								
8	8.4		1875G1								
			5952							1389G6	
10 to 12	5.3 to 3.3	N/A	1875G2							1389G21	
			5953					1388G7		1389G6	
			5915								
			1875G3							1389G21	

NOTE: see website for the most current information.

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