SB® 175 Connectors

Up to 280 Amps



Wires sizes from 10 to 1/0 AWG (5.2 to 53.4 mm²) fit in the second to largest connector in the SB® series. All Multipole wire connector housings are genderless and mate to themselves minimizing inventory and assembly complexity.

- **Silver Plated Wire Contacts up to 1/0 (53.4 mm²)**
  Allows UL rated currents up to 280 amps
- **Chemical Resistant Housing Option**
  Extends temperature range down to -40°C, while offering enhanced UV and chemical resistance
- **UL Rated for Hot Plugging up to 100 Amps**
  Great for battery or other applications where the ability to interrupt circuits is required

SB® 175 ORDERING INFORMATION

SB® 175 Standard Housings

The second to largest SB® housings work with wire contacts up to 1/0 AWG (53.4 mm²) as well as busbar contacts. Genderless design mates with itself. Mechanical keys are color-coded. *NOTE: SB® 175 black housing is keyless and can be mated with all other colors.*

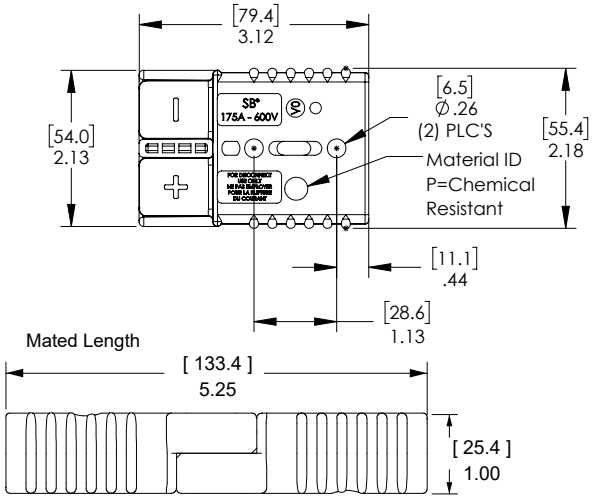
Description	Part Numbers	
Minimum Quantity	200	50
Yellow	943-BK	943
Orange	942-BK	942
Red	949-BK	949
Gray	940-BK	940
Blue	941-BK	941
Black (Keyless)	2-7252G11	-

SB® 175 Chemical Resistant Housings

Same features as the Standard SB® 175 but molded in a chemical resistant PBT/ PC blend. Suitable for use to -40°C.

Description	Part Numbers	
Minimum Quantity	200	50
Red	P949-BK	P949
Gray	P940-BK	P940

Bottom View

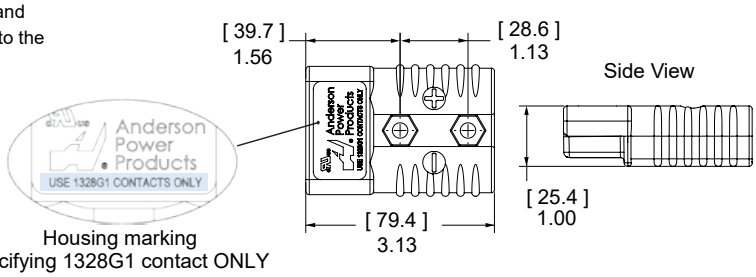


SB® 175 2/0 Housing

Genderless design mates with itself. Can be cross mated with gray and black (keyless) SB® 175 housing, but amperage capability is limited to the SB® 175 rating with the wire and contact used.

Description	Voltage Color-Code	Part Number
Minimum Quantity		100
Gray	36V	115107G1

Top View



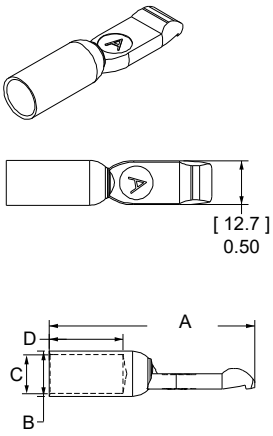
Housing marking specifying 1328G1 contact ONLY

SB® 175 Silver Plated Wire Contacts

Silver plated contacts offer superior 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	- A - mm	- B - inches	- B - mm	- C - inches	- C - mm	- D - inches	- D - mm
Minimum Quantity			500	50								
1/0	53.4	High	1382-BK	1382	2.35	59.69	0.52	13.21	0.44	11.18	1.04	26.42
1	42.4	High	1347-BK	1347	2.35	59.69	0.52	13.21	0.39	9.91	1.04	26.42
2	33.6	High	1383-BK	1383	2.35	59.69	0.52	13.21	0.35	8.89	1.04	26.42
4	21.1	High	1384-BK	1384	2.35	59.69	0.52	13.21	0.30	7.62	1.04	26.42
6	13.3	High	1348-BK	1348	2.10	53.34	0.37	9.40	0.22	5.59	0.80	26.42
2/0 *	70	Low	1328G1-BK	1328G1	2.35	59.69	0.64	16.26	0.49	12.45	1.04	26.42

* Use with 115107G1 only

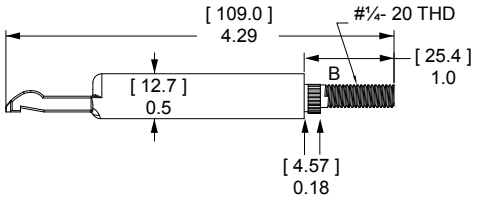


SB® 175 Silver Plated Busbar Contacts

Provides a quick disconnect input or output busbar connection.
Busbar contacts are for mating with wire contacts only. Part number 180BBS includes lock nuts. Locknuts must be ordered separately for 180BBS-BK.

Type	Thread	Mating Force	Loose Piece Part Numbers		
Minimum Quantity			1,000	120	10
Busbar	1/4-20	High	-	180BBS-BK	180BBS
Lock Nut	1/4-20	-	H1216P7	110G56	110G55

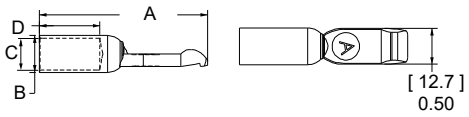
See Busbar contact drawing on website for further detail.



Silver Plated Wire Contacts - use with 2/0 Housing ONLY

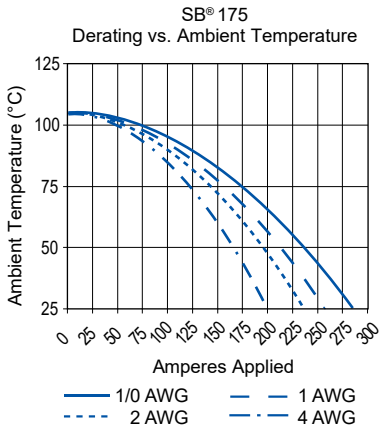
Silver plated contacts offer superior electrical performance and durability up to 5,000 mating cycles.

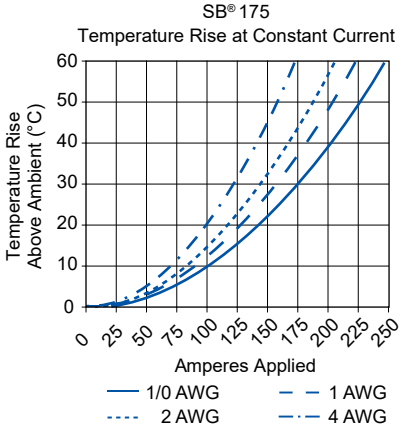
Type	AWG	mm²	Loose Piece Part Numbers		Dimensions - A - inches	- A - mm	- B - inches	- B - mm	- C - inches	- C - mm	- D - inches	- D - mm
Minimum Quantity			300	50								
Individual	2/0	70	1328G1-BK	1328G1	2.35	59.69	0.64	16.26	0.49	12.45	1.04	26.42

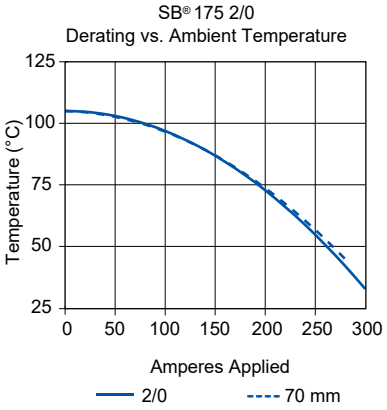


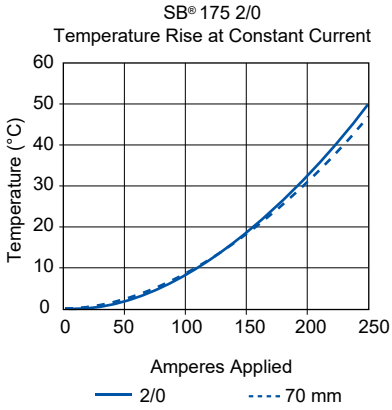
SB® 175 CONNECTOR TEMPERATURE CHARTS - Temperature rise charts are based on a 25°C ambient temperature.

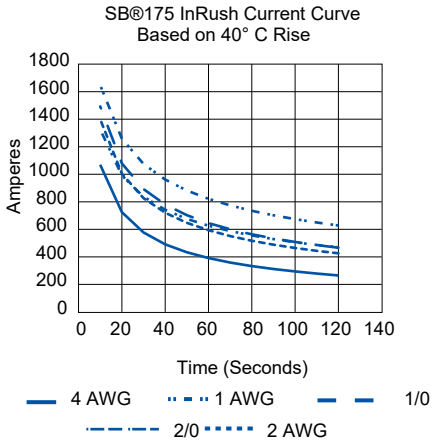
Current - Temperature Derating per IEC 60512-5-2 Test 5B











SB® 175 CONNECTOR SPECIFICATIONS

ELECTRICAL

Current Rating Amperes [1]	UL 1977	CSA
Wire-to-Wire (1/0 AWG)	280	175
Wire-to-Busbar (1/0 AWG)	200	

Voltage Rating AC/DC	
UL 1977	600

Dielectric Withstanding Voltage	
Volts AC	2,200

Avg. Mated Contact Resistance Milliohms [1]	
6” of 1/0 AWG wire	0.100

Hot Plug Current Rating Amperes - Wire & Busbar	
250 cycles at 120V DC 1/0 Wires	100A

MATERIALS

Housing	
Standard Plastic Resin	Polycarbonate
Chemical Resistant Resin	Polycarbonate / PBT blend
Contact Retention Spring	Stainless Steel

Housing Flammability Rating	
UL94	V-0
Glow Wire	960°C (GWFI) / 850°C (GWIT)

Wire & Busbar Contacts	
Base	Copper Alloy
Plating	Silver

Contact Termination Methods	
Crimp [3]	Wire Contacts
Hand Solder	Wire Contacts
Wrench / Socket	Busbar Contacts Only

MECHANICAL

Wire Size Range	AWG	mm²
Wire Contacts with Bushings	10 to 1/0	5.2 to 53.4

Max. Wire Insulation Diameter	in.	mm
	0.600	15.240

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

Mating Cycles No Load by Plating	Silver (Ag)
Wire and Busbar Contacts	10,000

Avg. Mating / Unmating Force	Lbf.	N
2 Pole	25	111

Min. Contact / Spring Retention Force	Lbf.	N
	150	667

Mechanical Shock [4]		
MIL-STD-202	213 Condition A	50g’s

Vibration High Frequency [4]		
MIL-STD-202	204 Condition A	10g’s

c UL us File No. E26226 © CSA Certified File No. LR25154

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

4 - Tested with contact part number 1382.

SB® 175 CONNECTOR IEC INFORMATION

Connector Series	Configurations	Creepage / Clearance per IEC 60950-1	Material Group
SB® 175	Unmated	5.73 mm	IIIa
	Mated	5.73 mm	

PROTECTION	
Touch Safety with Wire Contacts	
IEC 60529	IP10 unmated
Environmental Sealing with Boots	
IEC 60529	IP64

ATTRIBUTES	SB® 175
AMP Rating AC/DC	175
Voltage Rating AC/DC (Steady State)	500 V AC/DC (Operational)
Breaking Capacity - AMP Rating / Cycles	175 Amp / 10 Cycles
Voltage Rating (Breaking Capacity)	220 VDC
Finger Safety - Mated Only	IEC 60529 - IP20
Wire Size Tested	50 mm²
Contact Series Tested	1382
Climatic Testing (Cold, Heat & MFG)	IEC 60512 Test-11j, 11i & 11g
Cycle Life	IEC 60512 Test 9a- 5000 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

SB® 175 2/0 CONNECTOR SPECIFICATIONS

ELECTRICAL		
Current Rating (Amperes) [1]	**UL 1977**	**CSA**
2/0 AWG	340	200
70 mm²	315	185
Voltage Rating (AC/DC)		600
Dielectric Withstanding Voltage (AC)		2,200
AVG Contact Resistance (milli-ohms) [1]		0.045

MATERIALS	
Standard Housing	PC
Flammability Rating	UL94 V-0
Wire Power Contact	Copper Alloy, Silver Plate
Contact Termination Methods	
Crimp [3]	
Hand Solder	

MECHANICAL			
Contact Wire Range (AWG)		2/0	
(mm²)		70	
MAX Wire Insulation Diameter (in)		0.67	
(mm)		17.04	
Operating Temperature [2]		**°C**	**°F**
PC Housing		-20° to 105°	-4° to 221°
AVG Contact Retention Force for Standard PC Housing			
	(lbf)	150 lbf	
	(N)	667 n	
Mating Cycles (no load)		5,000	
Connector AVG Connect / Disconnect	**(lbf)**	55	
	(N)	245	

File No. E26226

[1] Based on: 105°C rated or better cable of the largest size. Properly calibrated Anderson 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] Use Anderson recommended tooling only. Alternate tools may adversely affect the performance of our connectors along with UL and CSA recognition.

SB® 175 ACCESSORIES

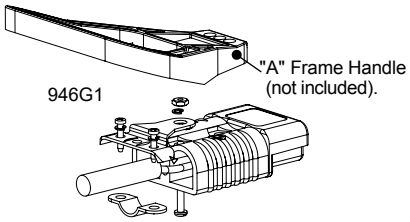
Cable Clamps

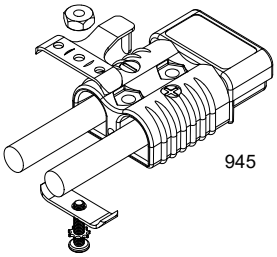
Durable metal cable clamps securely hold cables to prevent accidental strain or pulls from dislodging wire or contacts from the housing. Only Bolt On type clamps can be used with the handles. Cable clamps are recommended for solder terminated wires. Not for use with 3 pole housing.

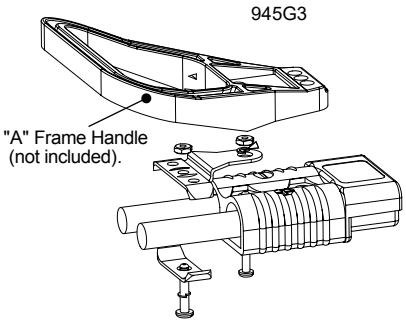
Description	Cable Size Max / Min In. Inches O.D.	Cable Size Max / Min mm mm O.D.	Part Numbers	
Minimum Quantity			100	50
Self Attaching for Discrete Conductor	0.55 to 0.24	14 to 6	945-BK	945
Bolt on for Discrete Conductor	0.66 to 0.24	16.7 to 6.2	945G3-BK	945G3
Bolt on for Bundled Conductor	0.75 to 0.29	18.3 to 7.3	946G1-BK	946G1

* Torque value 30 (in - lbs) / 3.4 (Nm)

NOTE: For assembly of clamp to housing only







The given wire O.D. information is an estimate. Cable clamps should be evaluated for performance with the actual wire to be used.

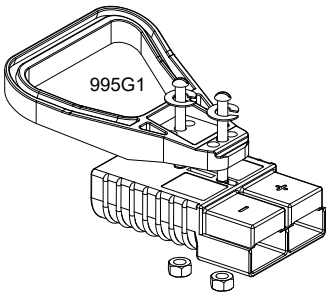
Handles

Handles are made out of durable PC plastic. Hardware to attach to connector body included in kits. Not for use with 3 pole housing.

Description	Part Numbers	
Minimum Quantity	100	25
Gray Handle Kit	-	995G1
Red Handle Kit	-	995G3
Handle Only, Gray	3-5074P1	-
Handle Only, Red	3-5074P3	-
Handle Only, Black	3-5074P5	-
Hardware Bag	-	105G8

* Torque value 30 (in lbs) / 3.4 (Nm)

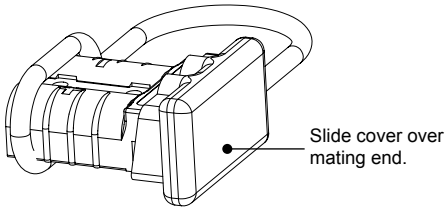
NOTE: For assembly of clamp to housing only



Dust Cover

Prevents dust and dirt from entering the mating interface of the connector when unmated. *NOTE: Not a Hermetic Seal. Not for use with 3 pole housing.*

Description	Part Numbers	
Minimum Quantity	500	50
Dust Cover with Lanyard Strap, Red	113890P2	134G2



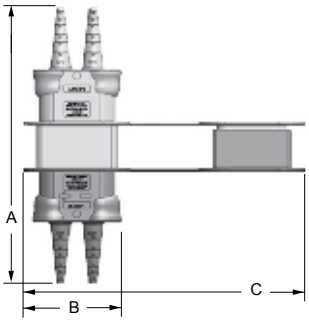
SB® Environmental Boots

SB® Environmental Boots provide water, dirt, chemical and UV protection for SB® 175 connectors. The durable boots shield the connectors from water and dirt to IP64* in both the mated and unmated condition.

Description	Part Numbers		Dimensions - A - in.	mm	- B - in.	mm	- C - in.	mm
Minimum Quantity	250	25						
SB® 175 Environmental Boot**, Load	3-6037P1-BK	3-6037P1	9.5	241	3.2	80	9.3	236
SB® 175 Environmental Boot**, Source	3-6036P1-BK	3-6036P1	9.5	241	3.2	80	9.3	236

* IP64 test pending

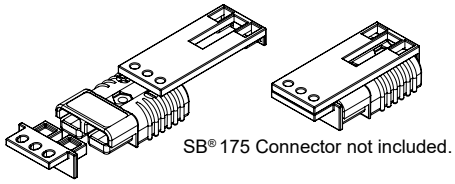
**With cover



SB® 175 Lockout

Works with standard lockout - tagout equipment to prevent access to the mating interface of the connector. Made from durable PC plastic. Can be used with 3 pole housing to lockout positive and negative positions only.

Description	Part Number
Minimum Quantity	25
Red Lockout - Tagout Kit	SB175-LOCKOUT

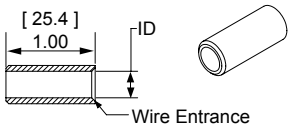


SB® 175 Connector not included.

Silver Plated Reducing Bushings: for Use with Contact Part Number 1382

Use with contact part number 1382-BK to allow a smaller wire to be used with the connector. Electrical capability is derated with smaller wire.

Contact Barrel Size		Wire Size		Part Numbers				Dimensions - ID -	
AWG	mm²	AWG	mm²					inches	mm
Minimum Quantity				1,500	1,000	500	100		
1/0	53.4	1	42.4	-	-	5687-BK	5687	0.39	9.91
1/0	53.4	2	33.6	5690-BK	-	-	5690	0.34	8.64
1/0	53.4	4	21.1	-	5693-BK	-	5693	0.27	6.86
1/0	53.4	6	13.3	-	5663-BK	-	5663	0.22	5.59
1/0	53.4	10 to 8	5.2 to 8.3	5648-BK	-	-	5648	0.19	4.83



SB® Tooling Information

Wire Size		Loose Piece Part Number	Loose Piece Contact Crimp Tools							
AWG	**mm²**	**Silver Plating**	**Hand Tool**	**OR**	**Pneumatic Tool**	**+**	**Die**	**+**	**Locator**	**Number of Crimps**
SB® 175										
1/0	53.4	1382	1368 Series		1387G2		1303G13		1304G32	Double
1	42.4	1347								
2	33.6	1383								
4	21.1	1384								
6	13.3	1348			1387G1		1388G4		1389G3	Single
2/0	70	1328G1			1387G2		1303G12		1304G32	Double

NOTE: See website for the most current information.

SB® 2/0 Tooling Information

Wire Size		Loose Piece Part Number	Loose Piece Contact Crimp Tools							
AWG	**mm²**	**Silver Plating**	**Hand Tool**	**OR**	**Pneumatic Tool**	**+**	**Die**	**+**	**Locator**	**Number of Crimps**
2/0	70	1328G1	1368		1387G2		1303G12		1304G32	Double

NOTE: See website for the most current information.

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