SB® 120 Connectors

Up to 240 Amps



Like the other Multipole connectors, the SB® 120 offers color-coded mechanically keyed housings. Keys can be used to identify and separate different circuits, or prevent users from accidentally cross mating different voltages. Wires sizes from 10 to 1 AWG (5.3 to 42.4 mm²) are held in the second smallest SB® housing.

- **Extended Range Contacts Expand Wire Size up to 1 AWG (42.4 mm²)**
  Allows UL rated currents up to 240 amps
- **Chemical Resistant Housing Option**
  Extends temperature range down to -40°C, while offering enhanced UV and chemical resistance
- **Panel Mounting Grooves**
  With use of mounting clamps, can be easily mounted through panels

SB® 120 ORDERING INFORMATION

SB® 120 Standard Housings

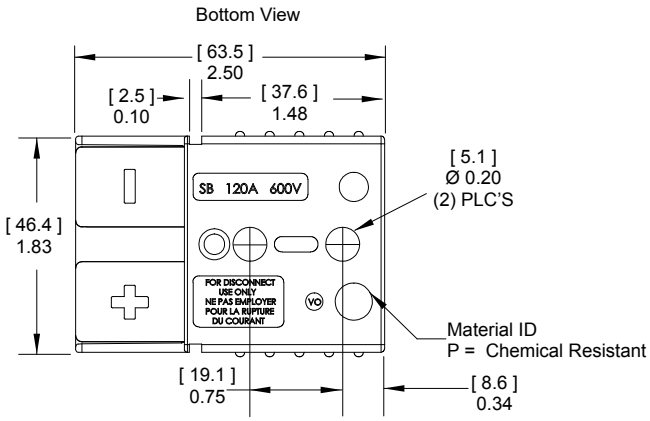
The second to smallest SB® housings work with wire contacts up to 1 AWG (42.4 mm²) as well as busbar contacts. Genderless design mates with itself. Mechanical keys are color-coded.

Description	Part Numbers	
Minimum Quantity	250	50
Red	6810G3-BK	6810G3
Gray	6810G1-BK	6810G1
Blue	6810G2-BK	6810G2

SB® 120 Chemical Resistant (CR) Housings

Same features as the Standard SB® 120 but molded in a chemical resistant PBT/PC blend. Suitable for use to -40°C.

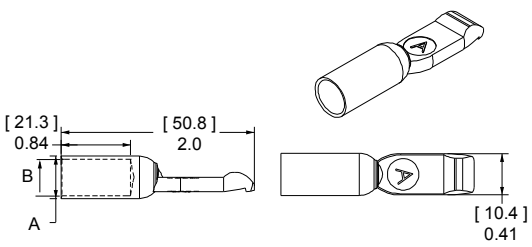
Description	Part Numbers	
Minimum Quantity	250	50
Red	P6810G3-BK	P6810G3
Gray	P6810G1-BK	P6810G1



SB® 120 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	mm	- B - inches	mm
Minimum Quantity			600	500	50				
1	42.4	Low	1323G1-BK	-	1323G1	0.47	11.94	0.39	9.91
2	33.6	High	-	1319-BK	1319	0.44	11.18	0.34	8.64
4	21.1	High	-	1319G4-BK	1319G4	0.44	11.18	0.29	7.37
6	13.3	High	-	1319G6-BK	1319G6	0.44	11.18	0.22	5.59



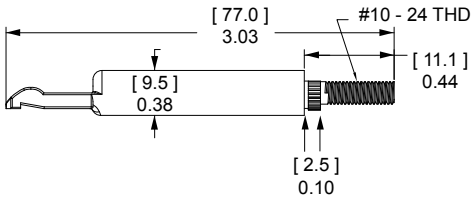
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SB® 120 Silver Plated Busbar Contacts

Use 2 busbar contacts per housing to provide a quick disconnect input or output busbar connection. Busbar contacts are for mating with wire contacts only. Part number 120BBS includes lock nuts. Locknuts must be ordered separately for B01997P1.

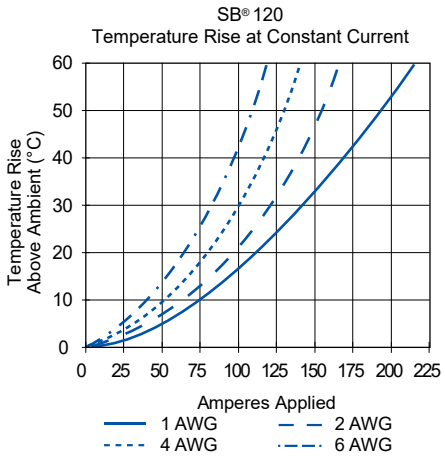
Type	Thread	Mating Force	Loose Piece Part Numbers		
Minimum Quantity			1,000	300	60
Busbar	10 to 24	High	-	B01997P1	120BBS
Lock Nut	10 to 24	-	H1216P8	-	-

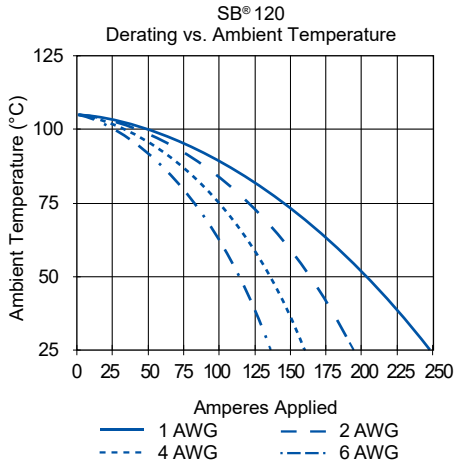
See Busbar contact drawing on website for further detail.



SB® 120 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® 120 CONNECTOR SPECIFICATIONS

MECHANICAL		
Wire Size Range	**AWG**	**mm²**
Wire Contacts with Bushings	10 to 1	5.3 to 42.4
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**
Wire-to-Wire	20	89
Min. Contact / Spring Retention Force	**Lbf.**	**N**
	75	333.6

MATERIALS	
Housing	
Standard Plastic Resin	Polycarbonate
Chem. Resistant Resin	Polycarbonate / PBT blend
Contact Retention Spring	Stainless Steel
Housing Flammability Rating	
UL94	V-0
Glow Wire	960°C (GWFI) / 800°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

Specifications continued on next page

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ELECTRICAL		
Current Rating Amperes [1]	**UL 1977**	**CSA**
Wire-to-Wire (1 AWG)	240	130
Wire-to-Busbar (2 AWG)	120	
Voltage Rating AC/DC		
UL 1977	600	
Dielectric Withstanding Voltage		
Volts AC	2,200	
Avg. Mated Contact Resistance Milliohms [1]		
5 1/2" of 2 AWG Wire	0.136	
Hot Plug Current Rating Amperes - Wire & Busbar		
250 cycles at 120V DC	60A	

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

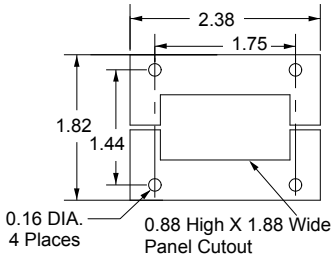
3 - Use Anderson Power® recommended tooling only. Alternate tools may adversely affect the performance of our connectors along with UL and CSA recognition.

SB® 120 ACCESSORIES

Mounting Clamp for SB® 120

Mounting clamps can be used for fastening a SB® 120 series housings to a panel. Fastening hardware not included.

Description	Part Number
Minimum Quantity	20 sets of 2
Panel Mount Bracket	1467G1

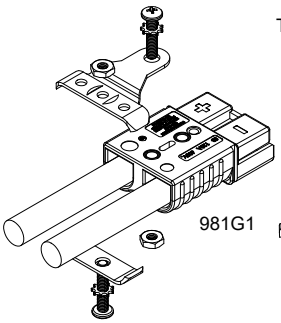


Cable Clamps *

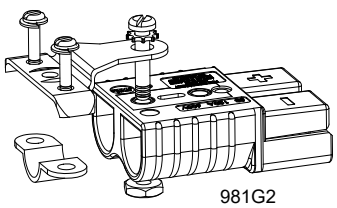
Durable metal cable clamps securely hold cables to prevent accidental strain or pulls from dislodging wire or contacts from the housing. Cable clamps are recommended for solder terminated wires.

Description	Cable Size Min / Max Inches O.D.	Cable Size Min / Max mm O.D.	Part Numbers
Minimum Quantity			50
Bolt on for Discrete Conductor	0.70 to 0.23	17.7 to 5.8	981G1
Bolt on for Bundled Conductor	0.73 to 0.29	18.5 to 7.3	981G2

* Torque value 21 (in lbs) / 2.4 (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.



IEC INFORMATION

ATTRIBUTES	SB®120
AMP Rating AC/DC	120
Voltage Rating AC/DC (Steady State)	400 V AC/DC (Operational)
Breaking Capacity - AMP Rating / Cycles	120 Amp / 10 Cycles
Voltage Rating (Breaking Capacity)	220 VDC
Finger Safety - Mated Only	IEC 60529- IP20
Wire Size Tested	50 mm²
Contact Series Tested	1323
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

Connector Series	Configurations	Creepage / Clearance per IEC 60950-1	Material Group
SB® 120	Unmated Mated	4.10 mm 4.10 mm	IIIa

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

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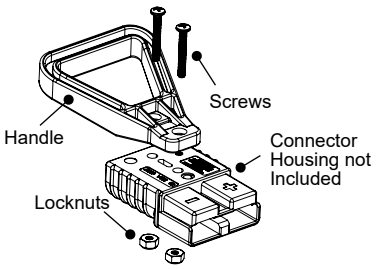
“A” Frame Handle for SB® 120 *

Handle makes mating and unmating the connector easier. The non-conductive gray plastic material is strong and safe. Machine screws and locknuts included.

Description	Part Number
Minimum Quantity	200
Gray “A” Handle & Hardware	997G1

* Torque value 21 (in - lbs) / 2.4 (Nm)

NOTE: For assembly of clamp to housing only



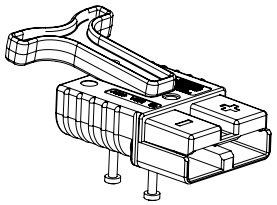
“T” Handle *

The “T” handle makes mating and unmating the connector easier. The non-conductive red plastic material is strong and safe. (2) Self tapping screws are used to secure the handle to the connector housing.

Description	Part Numbers	
Minimum Quantity	1,000	50
Red “T” Handle + Hardware Bag	-	SB120-HDL-RED
Red “T” Handle Only	113899P1	-
#8 x 7/8” Screw (Order 2 Per Handle)	H1120P43	-

* Torque value 21 (in - lbs) / 2.4 (Nm)

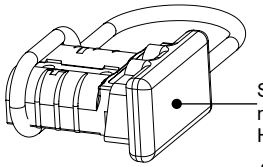
NOTE: For assembly of clamp to housing only



Dust Cover

Prevents dust and dirt from entering the mating interface of the connector when unmated. *NOTE: Not a Hermetic Seal.*

Description	Part Numbers	
Minimum Quantity	100	50
Dust Cover with Lanyard Strap, Black	B02019P1	134G4

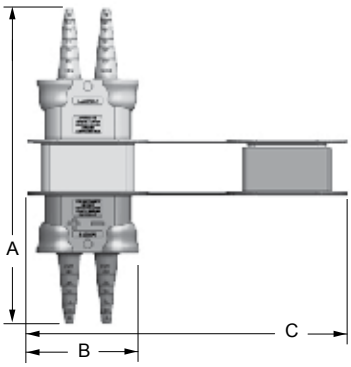


SB® 120 Environmental Boots

Environmental Boots provide water, dirt, chemical and UV protection for SB® 120 connectors. The durable boots shield the connectors from water and dirt to IP64 in both the mated and unmated condition.

Description	Part Numbers	
Minimum Quantity	250	25
SB® 120 Environmental Boot, Load	3-6035P1-BK	3-6035P1
SB® 120 Environmental Boot, Source	3-6034P1-BK	3-6034P1

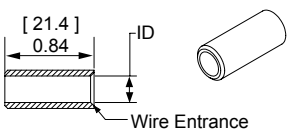
Dimensions					
- A -		- B -		- C -	
in.	mm	in.	mm	in.	mm
7.9	201	2.8	71	8.0	203



Silver Plated Reducing Bushings

Use with contact part number 1319-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				2,000	1,000	100		
2	33.6	4	21.1	5919-BK	-	5919	0.28	7.11
2	33.6	6	13.3	-	5920-BK	5920	0.23	5.84
2	33.6	10 to 8	5.2 to 8.3	5921-BK		5921	0.18	4.57



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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® 120										
1	42.4	1323G1	1368 Series		1387G1		1388G3		1389G4	Single
2	33.6	1319					1388G4			
4	21.1	1319G4								
6	13.3	1319G6								

NOTE: See website for the most current information.

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