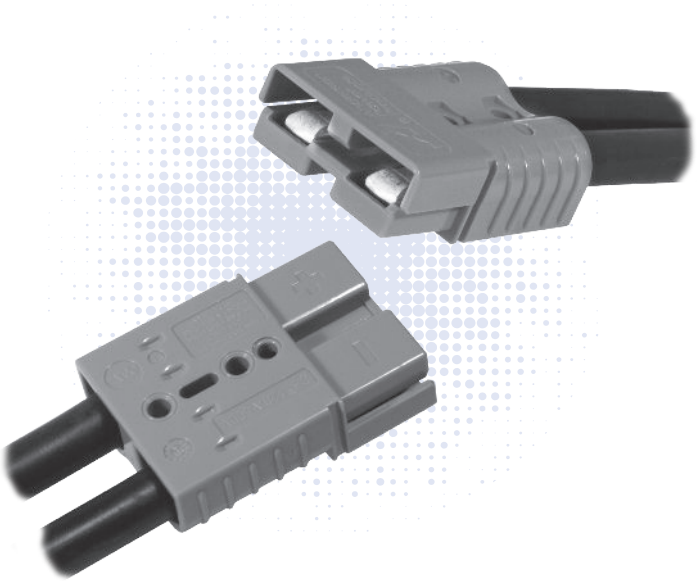
SB®120 Connectors - up to 240 Amps



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 (5.3 mm²) to #1 (42.4 mm²) are held in the second smallest SB® housing.

- **New 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 [35 mm²] as well as busbar contacts. Genderless design mates with itself. Mechanical keys are color coded.

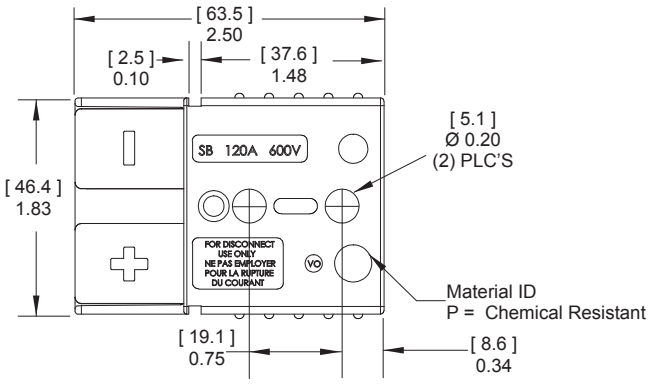
Description	----- Part Numbers -----	
Minimum Quantity	250	50 ....
Red	6810G3-BK	6810G3
Gray	6810G1-BK	6810G1
Blue	6810G2-BK	6810G2

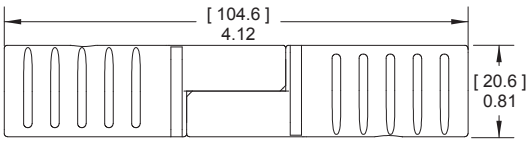
SB®120 Chemical Resistant (CR) Housings

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

Bottom View





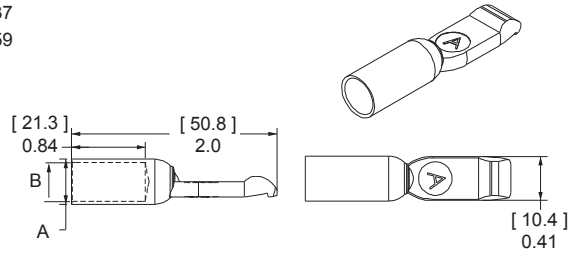
Mated Length

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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

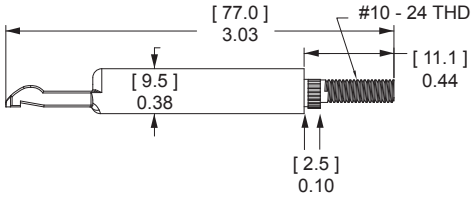


SB®120 Silver Plated Busbar Contacts

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	20	....
Busbar	#10-24	High	-	B01997P1	120BBS	
Lock Nut	#10-24	-	H1216P8	-	110G54	

See Busbar contact drawing on website for further detail.



| SB®120 CONNECTOR SPECIFICATIONS |

Electrical

	UL 1977	CSA
Current Rating Amperes [1]		
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	

Mechanical

	AWG	mm²
Wire Size Range		
Wire Contacts with Bushings	10 - 1	5.3 - 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	75	
N	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

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 APP 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 APP recommended tooling only. Alternate tools may adversely affect the performance of our connectors along with UL and CSA recognition.

c US File No. E26226 © CSA Certified File No. LR25154

| IEC INFORMATION |

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

Attributes — SB120

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 - 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

Protection

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

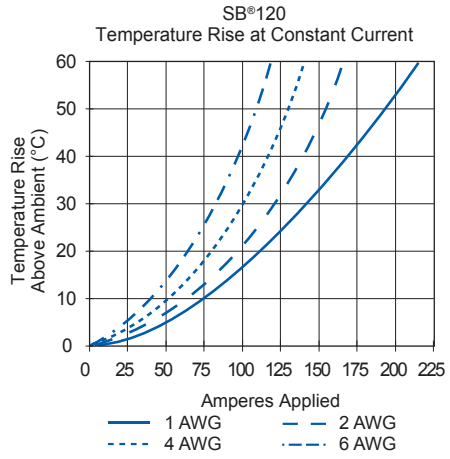
NOTE 3: Refer to the Constructional Data form for additional information on our website., www.andersonpower.com

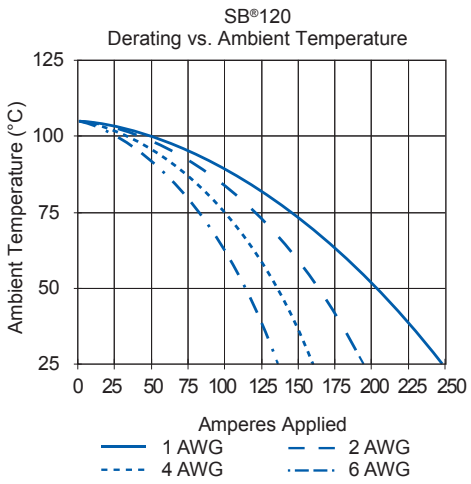
| SB®120 CONNECTOR TEMPERATURE CHARTS |

Temperature rise charts are based on a 25°C ambient temperature.

For Temperature Rise Above 60°C, Consult the Extended Temperature Rise Charts in the Appropriate Product Section on the Website.

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



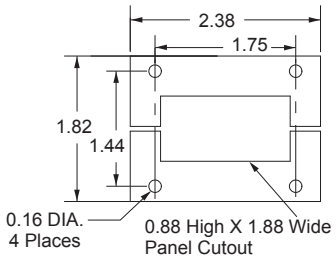


| SB® 120 ACCESSORIES |

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

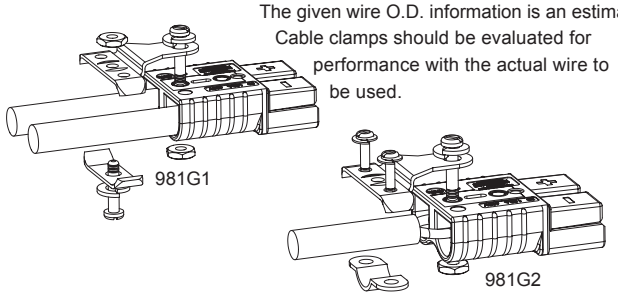


Cable Clamps

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.

	Cable Size		
Description	Min / Max Inches O.D.	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

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

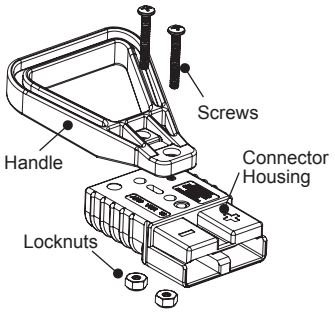


SECTION 3
SB® 120

"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.

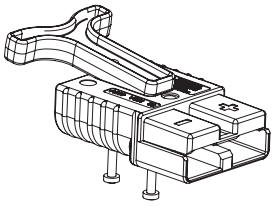
Description	- Part Number -
Minimum Quantity	200 .....
Gray "A" Handle & Hardware	997G1



"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.

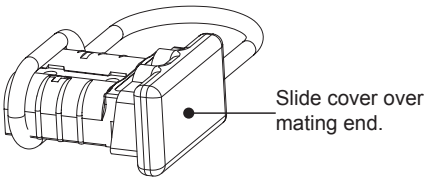
Description	---------- Part Numbers ----------	
Minimum Quantity	1,000	50 .....
Red "T" Handle + Hardware Bag	-	SB120-HDL-RED
Red "T" Handle Only	113899P1	-
#8 x 7/8" Screw (Order 2 Per Handle)	H1120P43	-



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

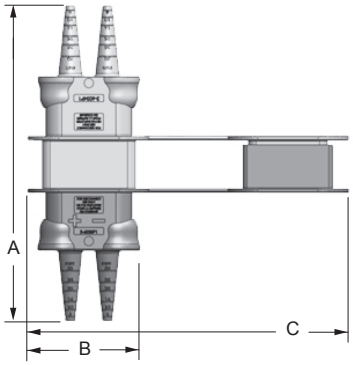


SB® Environmental Boots

SB® 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 Number ----------	
Minimum Quantity	250	25 ...
SB®120 Environmental Boot, Load	3-6035P1-BK	3-6035P1
SB®120 Environmental Boot, Source	3-6034P1-BK	3-6034P1

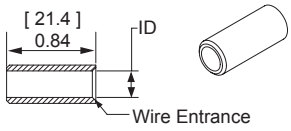
Dimensions					
- A -		- B -		- C -	
in	mm	in	mm	in	mm
7.9	201	2.8	71	8.0	203



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 - inches	mm
Minimum Quantity		2,000	1,000	100		
#2 AWG [33.6 mm²]	#4 AWG [21.2 mm²]	5919-BK	-	5919	0.28	7.11
#2 AWG [33.6 mm²]	#6 AWG [16 mm²]	-	5920-BK	5920	0.23	5.84
#2 AWG [33.6 mm²]	#10 - 8 AWG [5.3 - 8.4 mm²]	5921-BK		5921	0.18	4.57



SB®
- Tooling Information

Wire Size		Loose Piece Part Numbers	Loose Piece Contact Crimp Tools				
AWG	mm²	Silver Plating	Hand Tool	or Pneumatic Bench Tool	+ Die	+ Locator	Number of Crimps
SB®50							
#6	13.3	1307	1309G4	1387G1	1388G6	1389G6	Single
		5900					
#8	8.4	5952					
#10 / 12	5.3 / 3.3	5953			1388G7	1389G7	
		5915					
SB®120							
#1	42.4	1323G1	1368 Series	1387G1	1388G3	1389G4	Single
#2	33.6	1319			1388G4		
#4	21.2	1319G4					
#6	13.3	1319G6					
SB®175							
1/0	53.5	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
SB®350							
300mcm	152	910	1368 Series	N/A			Double
4/0	107.2	908		1387G2	1303G3	1304G31	
3/0	85	916			1303G12		
2/0	67.4	907					
1/0	53.5	917					

NOTE: See website for the most current information.