

# SB® 350 Connectors

Up to 500 Amps



The SB® 350 is the largest connector in the series with power capabilities up to 500 amps with a 350 mcm wire. Wires ranging from 1/0 to 350 mcm (53.5 to 185 mm<sup>2</sup>) fit into the one piece housing available in standard PC or a chemical resistant PBT/PC blend. Silver plated wire or busbar contacts minimize electrical resistance while offering supreme durability and reliability.

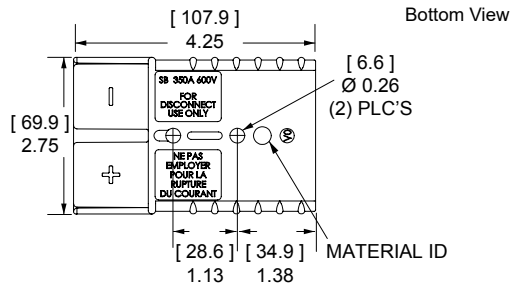
- **Up to 350 mcm (185 mm<sup>2</sup>) Wires**  
Allows UL rated currents up to 500 amps
- **Chemical Resistant Housing Option**  
Extends temperature range down to -40°C, while offering enhanced UV and chemical resistance
- **Same Housings Used for Wire and Busbar Contacts**  
Enables color-coded mechanically keyed wire to busbar connections

## SB® 350 ORDERING INFORMATION

### SB® 350 Standard Housings

The largest SB® housings work with wire contacts up to 350 mcm (150 mm<sup>2</sup>) as well as busbar contacts. Genderless design mates with itself. Mechanical keys are color-coded. *NOTE: SB® 350 Black and Blue Housings have the same keying features and can be intermated.*

Description	Part Numbers	
Minimum Quantity	50	25
Yellow	914-BK	914
Orange	932-BK	932
Red	913-BK	913
Gray	906-BK	906
Blue	912-BK	912
Green	931-BK	931
Black	2-7250G8	-

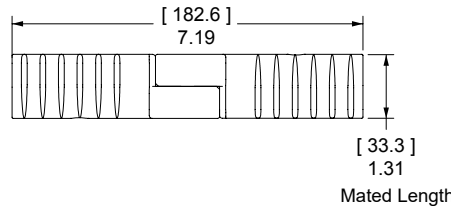


P = Chemical Resistant

### SB® 350 Chemical Resistant Housings

Same features as the Standard SB® 350 but molded in a chemical resistant PBT/ PC blend. Suitable for use to -40°C.

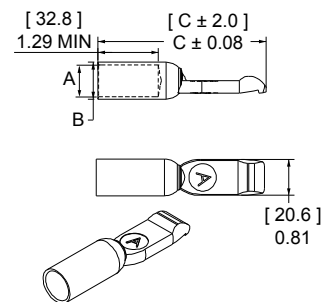
Description	Part Numbers	
Minimum Quantity	50	25
Red	P913-BK	P913
Gray	P906-BK	P906



### SB® 350 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	mm <sup>2</sup>	Mating Force	Loose Piece Part Numbers		Dimensions									
			- A -	- B -	- C -	inches	mm	inches	mm	inches	mm			
Minimum Quantity			200	150	50									
350 mcm	185	High	-	910-BK	910 *	0.75	19.05	0.87	22.10	3.04	77.2			
300 mcm	152	High	-	910-BK	910 *	0.75	19.05	0.87	22.10	3.04	77.2			
4/0	107.2	High	-	908-BK	908 *	0.64	16.26	0.75	19.05	3.03	77.0			
3/0	85	High	-	916-BK	916 *	0.58	14.73	0.70	17.78	3.00	76.2			
2/0	67.4	High	-	907-BK	907 *	0.49	12.45	0.64	16.26	2.96	75.2			
1/0	53.5	High	-	917-BK	917 *	0.44	11.18	0.51	12.95	2.91	73.9			



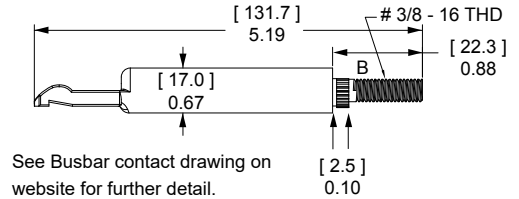
\* Sold as pairs. 2 parts shipped for every 1 part ordered.

## SB® 350 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 350BBS includes lock nuts. Locknuts must be ordered separately for B01998P1.

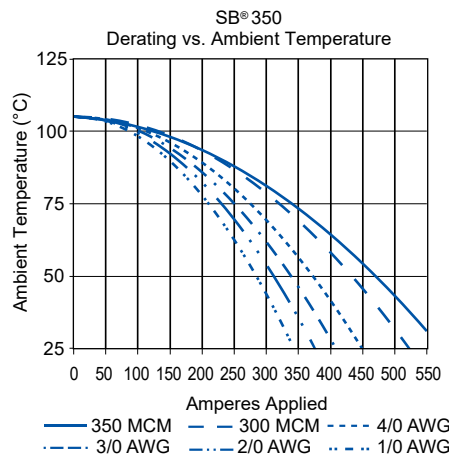
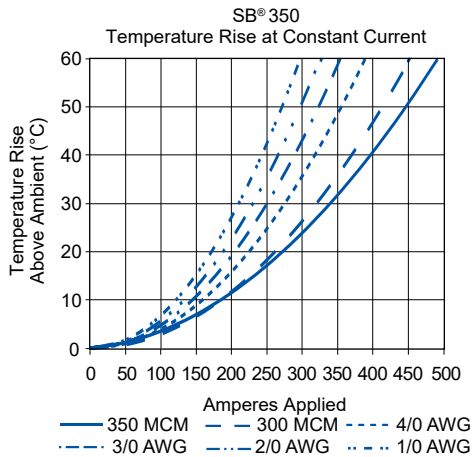
Type	Thread	Mating Force	Loose Piece Part Numbers	
<b>Minimum Quantity</b>				
Busbar	3/8-16	High	B01998P1	350BBS
Lock Nut	3/8-16	-	H1216P9	110G73

NOTE: Has not been tested by UL.



## SB® 350 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® 350 CONNECTOR SPECIFICATIONS

ELECTRICAL		
<b>Current Rating Amperes <sup>1</sup></b>	<b>UL 1977</b>	<b>CSA</b>
Wire-to-Wire (350 mcm)	500	325
<b>Voltage Rating AC/DC</b>		
UL 1977	600	
<b>Dielectric Withstanding Voltage</b>		
Volts AC	2,200	
<b>Avg. Mated Contact Resistance Milliohms <sup>1</sup></b>		
2 1/2" of 300 mcm Wire	0.050	
<b>Hot Plug Current Rating Amperes - Wire &amp; Busbar</b>		
250 cycles at 120V DC	100A	

MECHANICAL		
<b>Wire Size Range</b>	<b>AWG</b>	<b>mm<sup>2</sup></b>
Wire Contacts with Bushings	1/0 to 350 mcm	53.5 to 185
<b>Max. Wire Insulation Diameter</b>	<b>in.</b>	<b>mm</b>
	1.100	27.900
<b>Operating Temperature <sup>2</sup></b>	<b>°F</b>	<b>°C</b>
Standard	-4° to 221°	-20° to 105°
Chemical Resistant	-40 to 221°	-40° to 105°
<b>Mating Cycles No Load by Plating</b>	<b>Silver (Ag)</b>	
Wire and Busbar Contacts	10,000	
<b>Avg. Mating / Unmating Force</b>	<b>Lbf.</b>	<b>N</b>
2 Pole	30	133
<b>Min. Contact / Spring Retention Force</b>	<b>Lbf.</b>	<b>N</b>
	150	667

Specifications continued on next page

## 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 <sup>4</sup>

Base	Copper Alloy
Plating	Silver

### Contact Termination Methods

Crimp <sup>3</sup>	Wire Contacts
Hand Solder	Wire Contacts
Wrench / Socket	Busbar Contacts



NOTE 1: See IEC 60664-1 for working voltage.

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.

4 - Has not been tested by UL.

## IEC INFORMATION

Connector Series	Configurations	Creepage / Clearance per IEC 60950-1	Material Group
SB® 350	Unmated	5.66 mm	IIla
	Mated	5.66 mm	

## PROTECTION

### Touch Safety with Wire Contacts

IEC 60529 IP10 unmated



ATTRIBUTES	SB® 350
AMP Rating AC/DC	350
Voltage Rating AC/DC (Steady State)	500 V AC/DC (Operational)
Breaking Capacity - AMP Rating / Cycles	100 Amp / 10 cycles
Voltage Rating (Breaking Capacity)	125 VDC
Finger Safety - Mated Only	IEC 60529 - IP20
Wire Size Tested	120 mm <sup>2</sup>
Contact Series Tested	908
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

# SB® 350 ACCESSORIES

## Cable Clamps \*

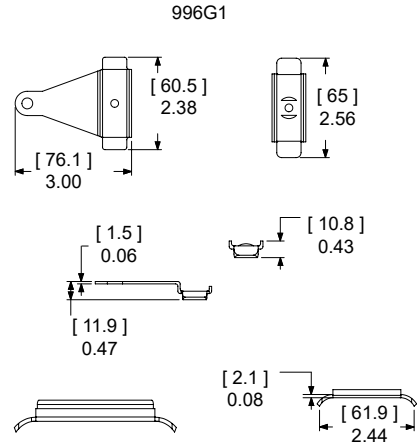
Durable metal cable clamps securely hold cables to prevent accidental strain or pulls from dislodging wire or contacts from the housing. Cable clamps are recommended for solder terminated wires.

Description	Cable Size		Part Number
	Min / Max Inches O.D.	Min / Max mm O.D.	
Minimum Quantity			10
Bolt On for Discrete Conductor	1.00 to 0.35	25.4 to 8.8	996G1

\* Torque value 50 (in - lbs) / 5.6 (Nm)

NOTE: For assembly of clamp to housing only

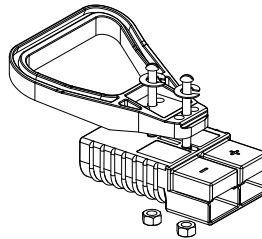
The given wire O.D. information is an estimate. Cable clamps should be evaluated for performance with the actual wire to be used.



## Handles \*

Handles are made out of durable PC plastic. Hardware to attach to connector body included in kits.

Description	Part Numbers	
Minimum Quantity	100	25
Gray Handle Kit	-	995G2
Red Handle Kit	-	995G4
Handle Only, Gray	3-5074P1	-
Handle Only, Red	3-5074P3	-
Handle Only, Black	3-5074P5	-
Hardware Bag	-	106G7



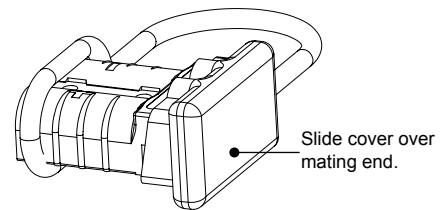
\* Torque value 50 (in - lbs) / 5.6 (Nm)

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.

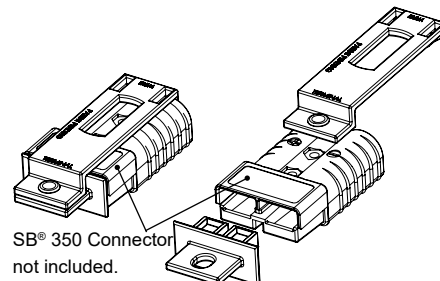
Description	Part Numbers	
Minimum Quantity	500	50
Dust Cover with Lanyard Strap, Red	113890P3	134G3



## SB® 350 Lockout

Works with standard lockout - tagout equipment to prevent access to the mating interface of the connector. Made from durable PC plastic.

Description	Part Number
Minimum Quantity	25
Red Lockout - Tagout Kit	SB350-LOCKOUT



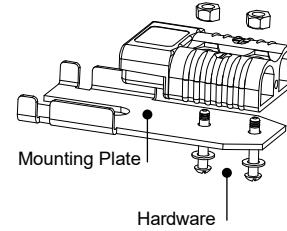
### Manual Release Bracket - Mounting Side \*

Works with the Locking Side to ease mating and unmating connectors.

Description	Part Numbers		
	66	25	10
Minimum Quantity	66	25	10
Bracket and Hardware Kit	-	-	922G1
Bracket Only	B00229P1	-	-
Hardware Bag	-	106G6	-

\* Torque value 50 (in - lbs) / 5.6 (Nm)

NOTE: For assembly of brackets to housing only



### Manual Release Bracket - Locking Side with Cable Clamp \*

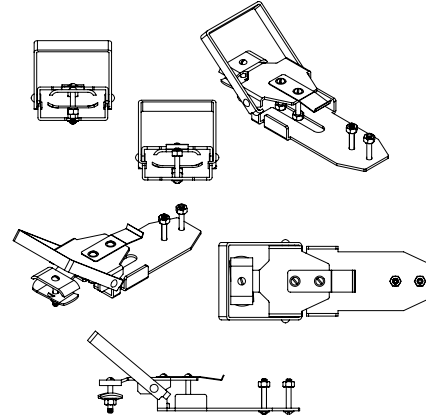
Works with the Mounting Side to ease mating and unmating connectors.

Description	Cable Size		Part Number
	Min / Max	Min / Max	
	Inches O.D.	mm O.D.	
Minimum Quantity			10
Bracket and Hardware Kit w/ Clamp Kit	0.94 to 0.61	23.7 to 15.5	919

\* Torque value 50 (in - lbs) / 5.6 (Nm)

NOTE: For assembly of bracket 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.



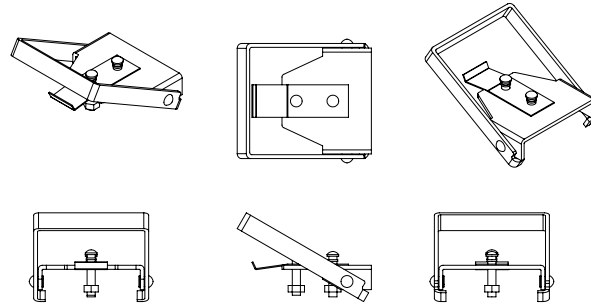
### Manual Release Bracket - Locking Side no Cable Clamp \*

Works with the Battery side to ease mating and unmating connectors.

Description	Part Number
Minimum Quantity	10
Bracket and Hardware Kit No Clamp Kit	919G1

\* Torque value 50 (in lbs) / 5.6 (N - M)

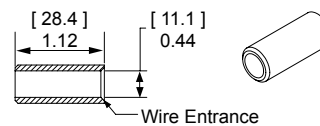
NOTE: For assembly of bracket to housing only



### Reducing Bushings: for Use with Contact Part Number 907

Use with contact part number 907-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	
AWG	mm	AWG	mm <sup>2</sup>		
Minimum Quantity				500	100
2/0	67.4	1/0	53.5	5918-BK	5918



## SB® Tooling Information

Wire Size		Loose Piece Part Number	Loose Piece Contact Crimp Tools									
AWG	mm <sup>2</sup>	Silver Plating	Hand Tool	OR	Pneumatic Tool	+	Die	+	Locator	Number of Crimps		
<b>SB® 50</b>												
6	13.3	1307	1309G4		1387G1		1388G6		1389G6	Single		
		5900										
8	8.4	5952										
10 to 12	5.3 to 3.3	5953										
		5915										
<b>SB® 120</b>												
1	42.4	1323G1	1368 Series		1387G1		1388G3		1389G4	Single		
2	33.6	1319										
4	21.2	1319G4										
6	13.3	1319G6					1388G4					
<b>SB® 175</b>												
1/0	53.5	1382	1368 Series		1387G2		1303G13		1304G32	Double		
1	42.4	1347										
2	33.6	1383										
4	21.1	1384					1388G4		1389G3			
6	13.3	1348								1387G1		
<b>SB® 350</b>												
350 mcm	185	910	1368 Series		N/A		1303G3		1304G31	Double		
300 mcm	152	910										
4/0	107.2	908										
3/0	85	916										
2/0	67.4	907									1387G2	1303G12
1/0	53.5	917										

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	mm <sup>2</sup>	Silver Plating	Hand Tool	OR	Pneumatic Tool	+	Die	+	Locator	Number of Crimps
2/0	53.5	1328G1	1368		1387G2		1303G12		1304G32	Double

NOTE: See website for the most current information.

### Your Best Connection™

2020-0055 DS-SB350 REV C7

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