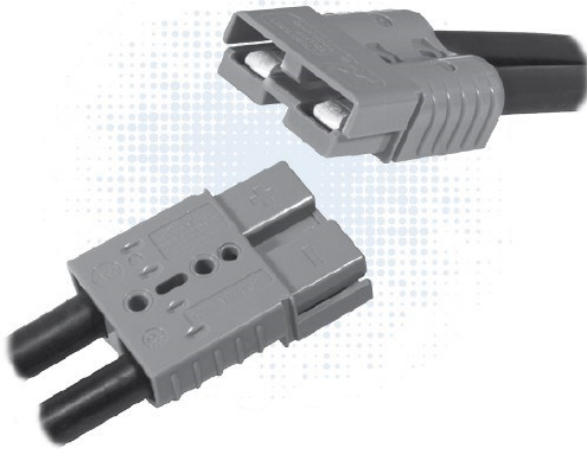


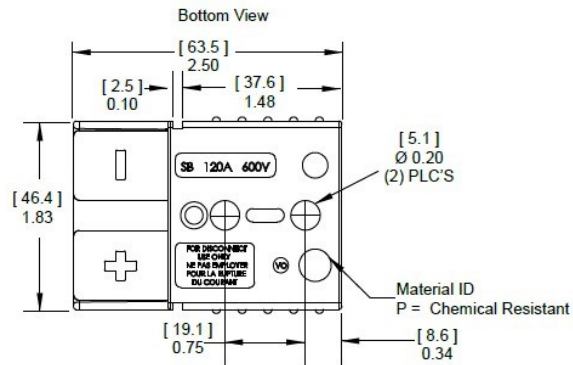
M AND120-G

SCHEDA TECNICA



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

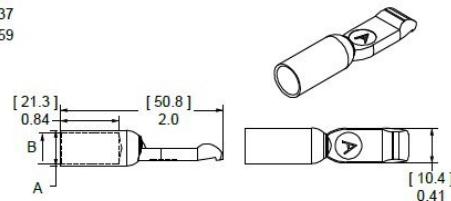


SB®120 Silver Plated Wire Contacts

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 ²	Mating Force
1	42.4	Low
2	33.6	High
4	21.1	High
6	13.3	High

Dimensions			
- A -		- B -	
inches	mm	inches	mm
0.47	11.94	0.39	9.91
0.44	11.18	0.34	8.64
0.44	11.18	0.29	7.37
0.44	11.18	0.22	5.59



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	

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

Mechanical		
Wire Size Range	AWG	mm²
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	

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

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



File No. E26226



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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 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.

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

