

**Materials**

- 1. Insulator: Nylon PA46, black
- 2. Shell: C3604 brass, nickel plated
- 3. Terminal: C5191 phosphor bronze, nickel plated

**Electrical Requirements**

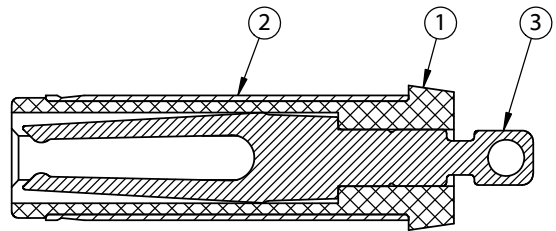
Dielectric strength: 1 min @ 500 Vac  
Insulation resistance: 100 MΩ @ 500 Vdc  
Contact resistance: 30 mΩ or less

**Mechanical Requirements**

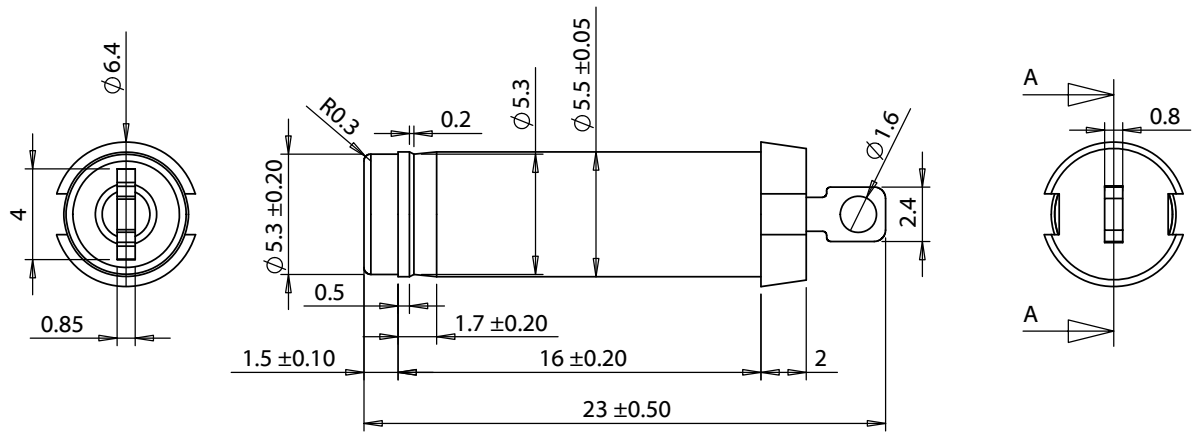
Insertion force: 0.3-3 kgf  
Withdrawal force: 0.3-3 kgf  
Life cycle: 5000 mating cycles while maintaining 0.3-2.0 kgf min.  
insertion force, 0.2-1.5 kgf min. withdrawal force and less than  
100 mΩ contact resistance.

**Environmental Requirements**

Heat test: 70 °C, relative humidity 70-85% for 96 hours while  
maintaining contact resistance: 100 mΩ maximum, insulation  
resistance: 50 MΩ @ 500 Vdc without looseness or deformation  
Humidity test: 40 °C, relative humidity 90-100% for 96 hours  
while maintaining dielectric strength: 1 min @ 500 Vac, insulation  
resistance: 100 MΩ @ 500 Vdc, contact resistance: 100 mΩ  
maximum  
Salt spray test: 35 ±2 °C, relative humidity 90-95%, 5% NaCl  
mist for 24 hrs. Wash parts after test. Maintain mechanical  
requirements and a contact resistance of less than 80 mΩ.



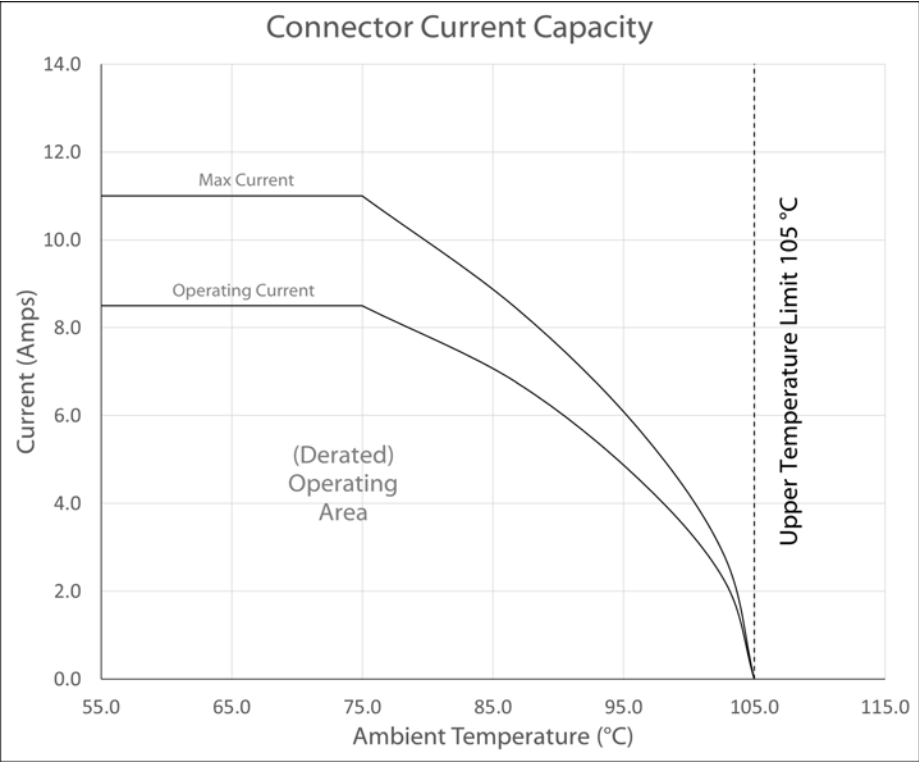
SECTION A-A



Revision:	Date:	Description:	Prepared:	Notes:	<div>TENSILITY</div> <div>tel 1.541.323.3228 800 877.670.7118</div> <div>fax 1.541.323.4202 web tensility.com</div>		
A	09/28/2016	Initial release	Verified:	RoHS compliant			
A1	01/18/2019	Updated temperature rise data	Dimensions are in millimeters.	Function test: no open, no short circuit, no intermittent	Size: Part number:		
			Tolerances:	Description:			
			X: ± 0.3 mm	Connector, dc plug, 5.5x2.1x23 mm, molding style,	Scale: 3:1		
			X.X: ± 0.1 mm	spring contacts, nickel plated, 105° C			
			X.XX: ± 0.05 mm		Sheet 1 of 2		

**Ratings**  
Maximum Operating Voltage: 48 Vdc  
Maximum Operating Current: 8.5 A

**Operating Temperature Range**  
-25° to 105 °C, relative humidity of 85% or less



Testing based on IEC 60512-5-2. Max current curve generated with isolated test article under controlled environmental conditions, and does not take into account external factors such as housings, mating cables, or other circuitry. Operating current curve (derated by 20% of maximum values) accounts for external factors, and manufacturing variation.


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Prepared:
Verified:
Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm

Notes:
RoHS compliant
Function test: no open, no short circuit, no intermittent
Description: Connector, dc plug, 5.5x2.1x23 mm, molding style, spring contacts, nickel plated, 105° C

# TENSILITY

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Size: A	Part number: 50-00540
Scale: 3:1	 Sheet 2 of 2