

Operating Temperature Range

-50~200°C, relative humidity of 85% or less

Materials

- ① Insulator: LCP + 30% glass fiber, UL 94 V-0, black
- ② Spring contact: C5191 phosphor bronze, 2 μm nickel plated
- ③ Shell: C3604 brass, 2 μm 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 kgf min.

insertion force, 0.2 kgf min. withdrawal force and less than 100 mΩ contact resistance.

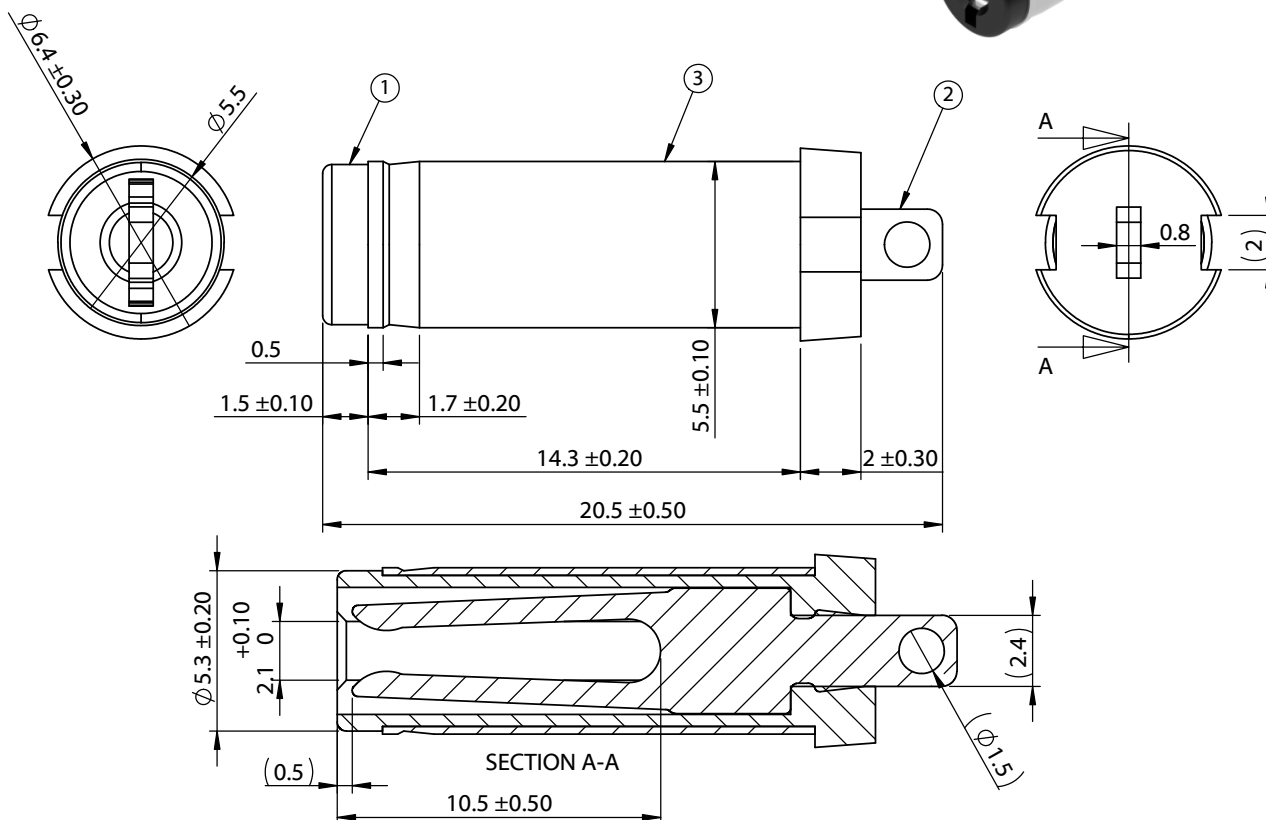
Environmental Requirements

Cold test: -25 ±3 °C for 48 hours without deformation

Heat test: 70 °C, relative humidity 70-85% for 96 hours without deformation

Humidity test: 40 °C, relative humidity 90-100% for 96 hours without deformation

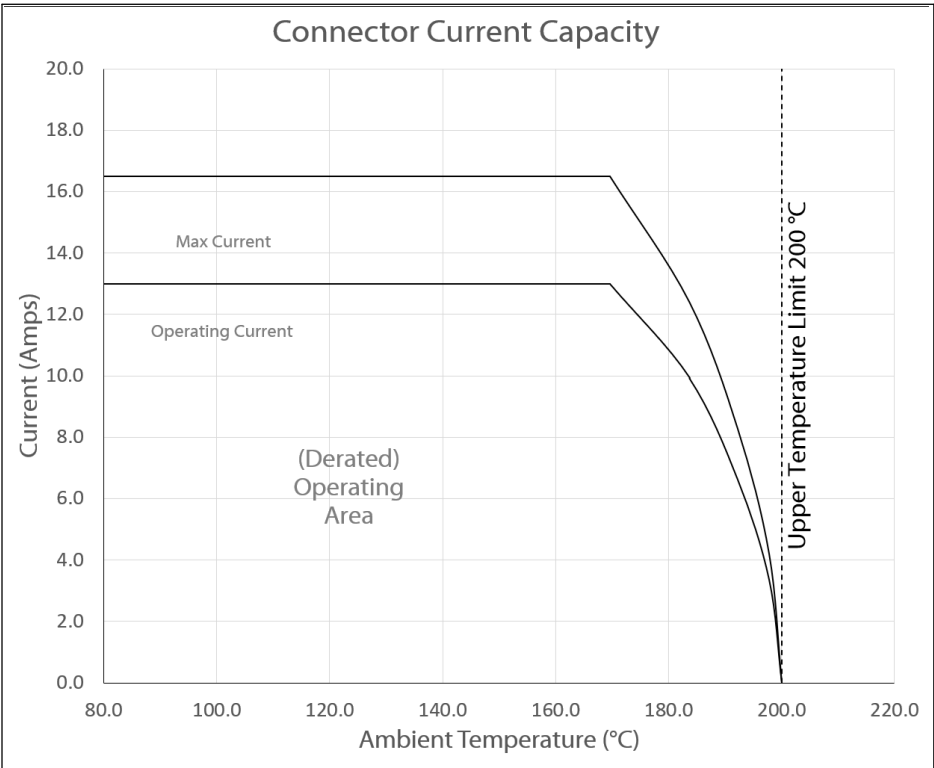
Salt spray test: 35 °C, relative humidity 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 mΩ.



Revision:	Date:	Description:	Prepared:	Notes:	<div style="text-align: center;"> <h1>TENSILITY</h1> <p> tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com </p> </div>	
A	11/13/23	Initial release	Verified:	RoHS compliant		
				Function test: no open, no short circuit, no intermittent	Size:	Part number:
			Dimensions are in millimeters.	Description:	A	50-01010
			Tolerances:	Connector, dc plug, 5.5x2.1xL20.5 mm, molding style, spring contacts	Scale: 4:1	Sheet 1 of 2
			X: ± 0.3 mm			
			X.X: ± 0.1 mm			
			X.XX: ± 0.05 mm			

Ratings
Max operating voltage: 48 Vdc
Max Oppering current: 13 A

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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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A	11/13/23	Initial release	Verified:				
			Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm	Description: Connector, dc plug, 5.5x2.1xL20.5 mm, molding style, spring contacts	Size:	Part number:	
					A	50-01010	
					Scale: 4:1		Sheet 2 of 2