

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

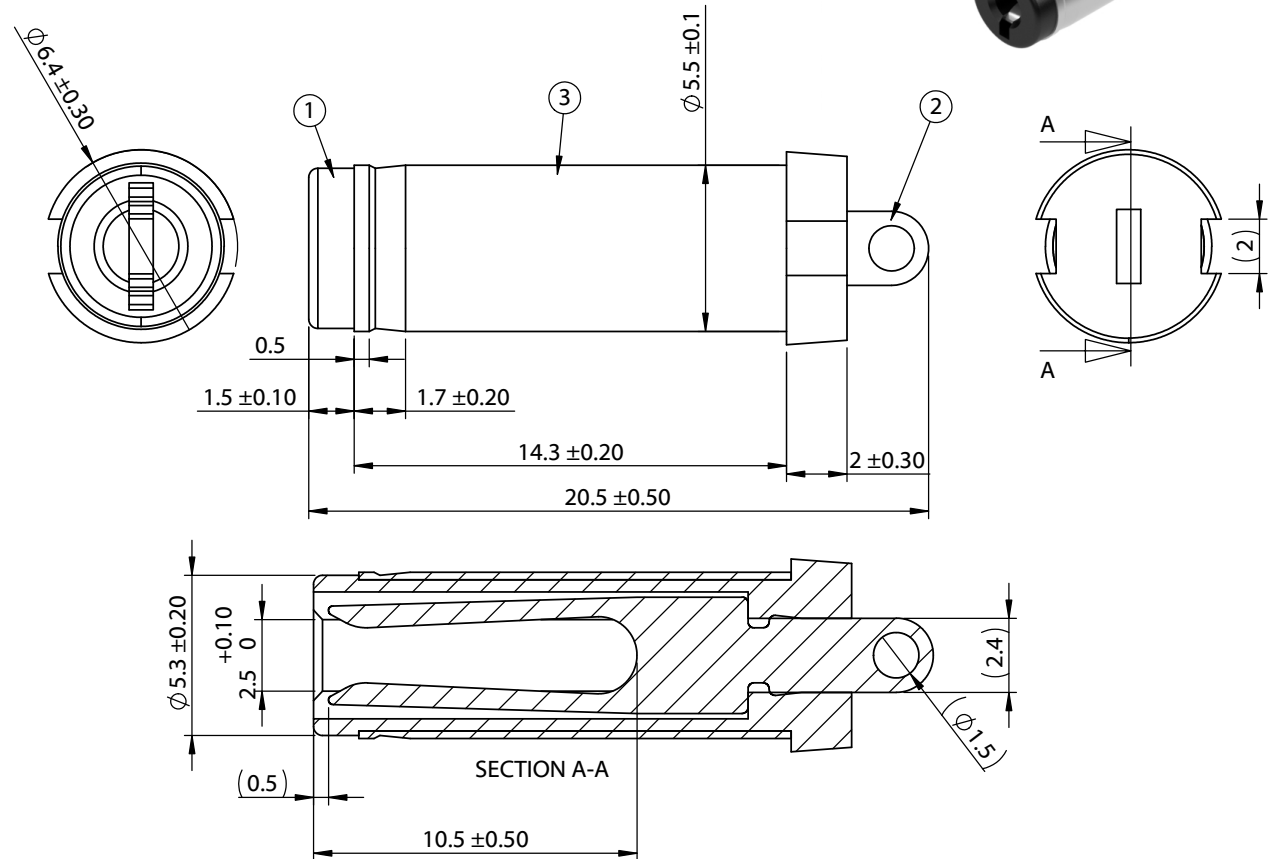
Dielectric strength: 1 min @ 500 Vac
 Insulation resistance: 100 MΩ @ 500 Vdc
 Contact resistance: 30 mΩ or less


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

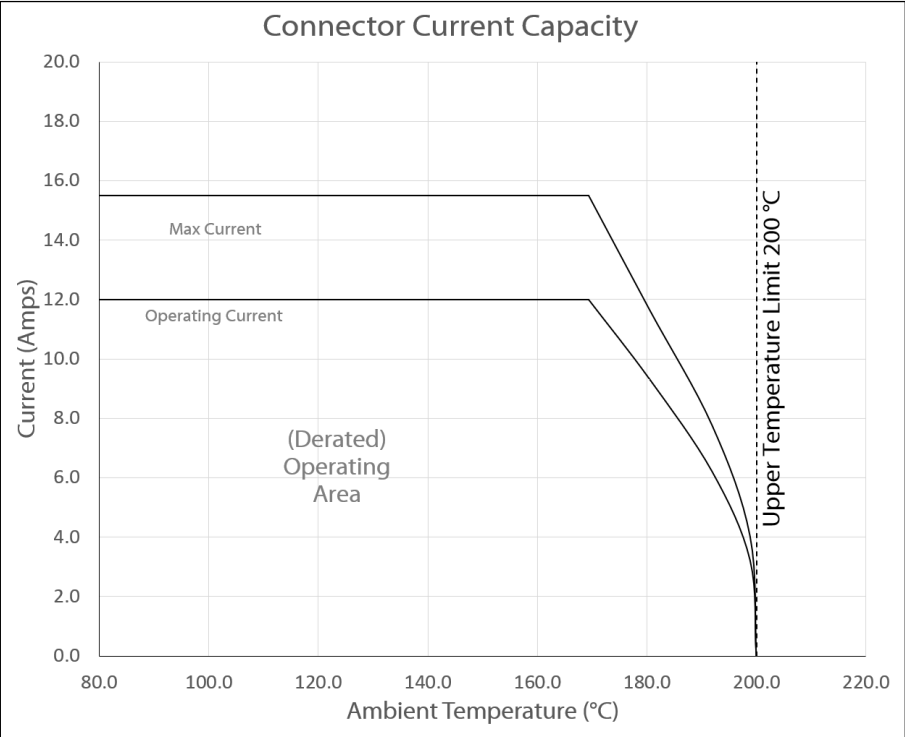
Cold test: -25 ±3 °C for 48 hours without deformation
 Heat test: 70 °C, relative humidity 70-85% for 96 hours
 without deformation
 Humidity test: 40 °C, relative humidity 90-100% for 96 hours
 without deformation
 Salt spray test: 35 °C, relative humidity 90-95%, 5% NaCl
 mist for 24 hrs. Wash parts 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</p> <p>fax 1.541.323.4202 web tensility.com</p> </div>		
A	11/14/23	Initial release	Verified:	RoHS compliant			
				Function test: no open, no short circuit, no intermittent	Size: A	Part number: 50-01011	
			Dimensions are in millimeters. Tolerances: X: ± 0.3 mm X.X: ± 0.1 mm X.XX: ± 0.05 mm	Description: Connector, dc plug, 5.5x2.5xL20.5 mm, molding style, spring contacts			
					Scale: 4:1		Sheet 1 of 2

Ratings
Max operating voltage: 48 Vdc
Max Operating current: 12 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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