

Materials

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

Electrical Requirements

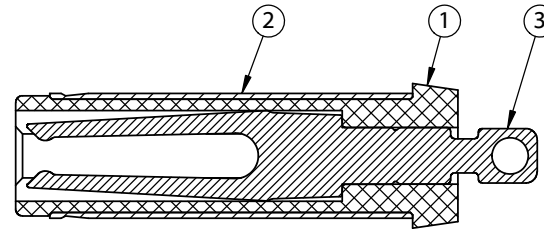
Dielectric strength: 1 min @ 500 Vac
 Insulation resistance: 100 MΩ @ 500 Vdc
 Contact resistance: 30 mΩ or less

Mechanical Requirements

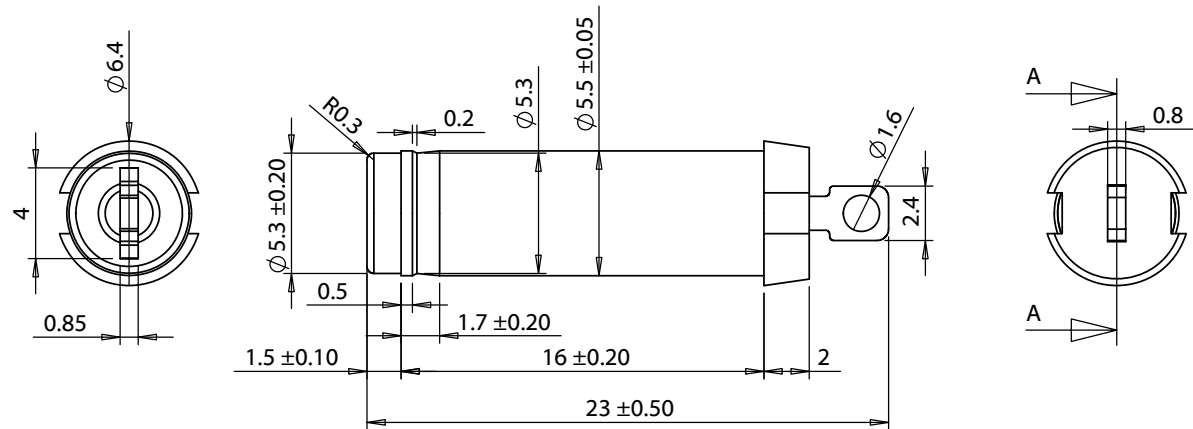
Insertion force: 0.3-3 kgf
 Withdrawal force: 0.3-3 kgf
 Life cycle: 5000 mating cycles while maintaining 0.3-2.0 kgf min. insertion force, 0.2-1.5 kgf min. withdrawal force and less than 100 mΩ contact resistance.

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



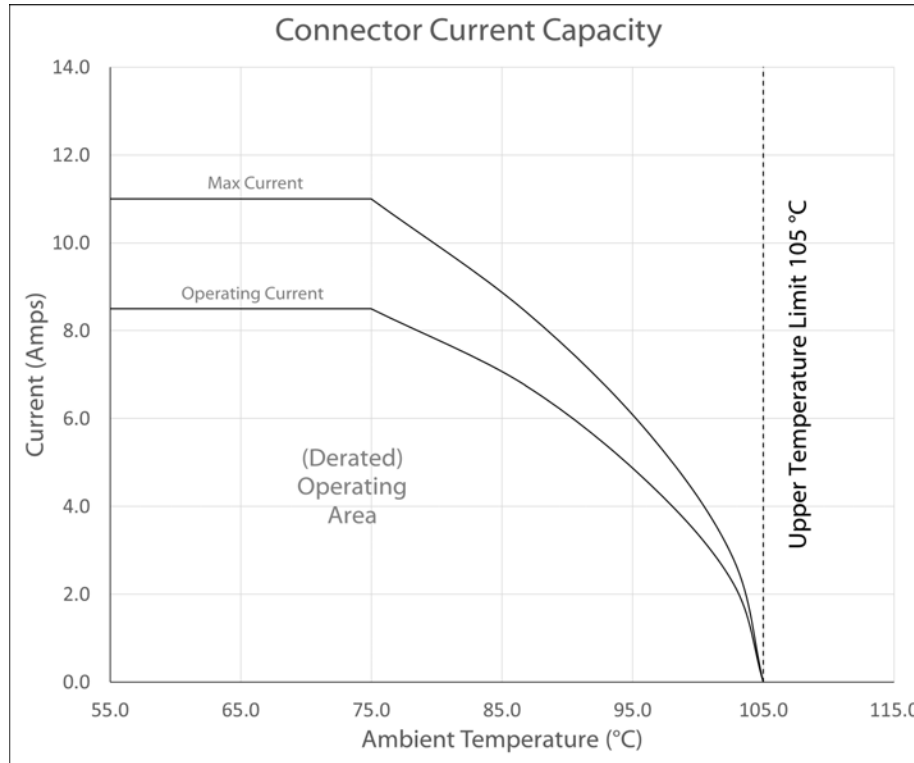
Revision:	Date:	Description:	Prepared:	Notes:	<h1>TENSILITY</h1> <p>tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com</p>
A	09/28/2016	Initial release	Verified:	RoHS compliant	
A1	01/18/2019	Updated temperature rise data	Dimensions are in millimeters. Tolerances: X: ± 0.3 mm X.X: ± 0.1 mm X.XX: ± 0.05 mm	Function test: no open, no short circuit, no intermittent	Size: Part number: A 50-00540
				Description: Connector, dc plug, 5.5x2.1x23 mm, molding style, spring contacts, nickel plated, 105° C	Scale: 3:1 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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