

Materials

1. Insulator, PBT + 15% glass fiber, black
2. Shell, C2700 brass, 2 μm nickel plated
3. Spring contact, C5191 phosphor bronze, 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

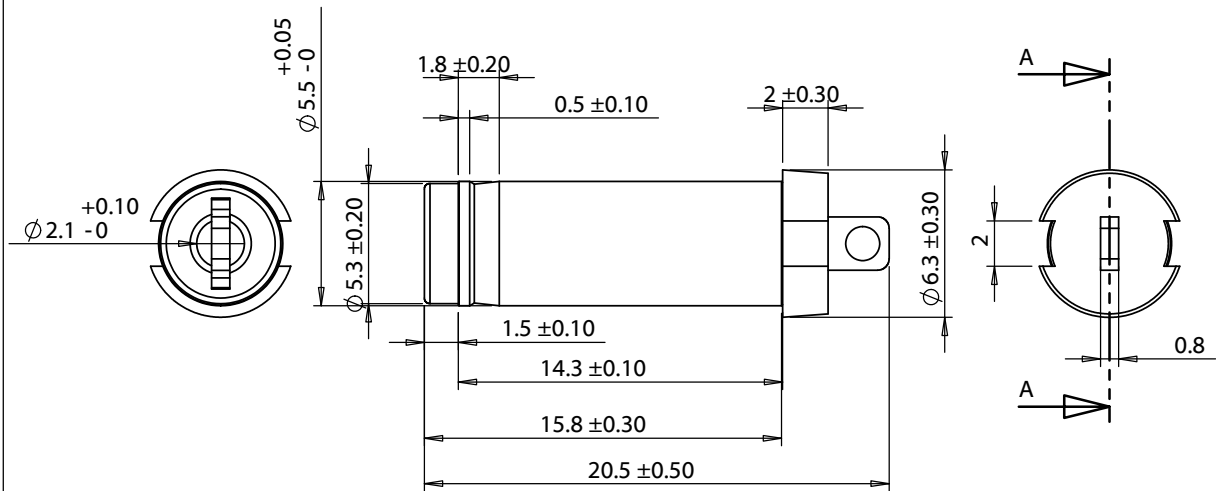
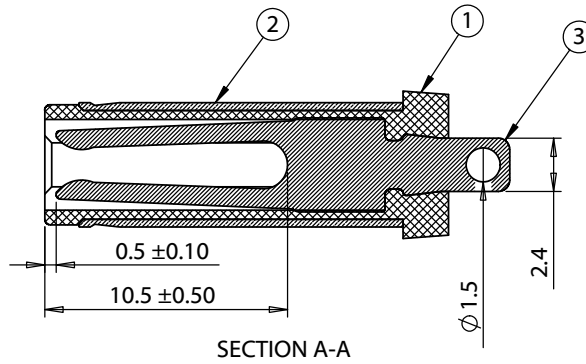
Insertion force: 0.3-3 kgf
 Withdrawal force: 0.3-3 kgf
 Durability: 5000 mating cycles while maintaining; 0.3-2 kgf insertion force, 0.2-1.5 kgf withdrawal force and a less than 100 mΩ contact resistance.

Environmental requirements

Damp test: 40 °C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 MΩ @ 500 Vdc minimum and a contact resistance of 100 mΩ or less.

Dry test: 70 °C, RH 70-85% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain insulation resistance of 50 MΩ @ 500 Vdc minimum and a contact resistance of 100 mΩ or less.

Salt spray test: 35 °C, RH 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:
A	11/28/2011	Initial release
A1	8/17/2012	Updated dimensions and materials
A2	11/9/2012	Added test data

Prepared:
AW
Digitally signed by AW
 Date: 2019.10.24
 16:35:08 -07'00'

Verified:
PS
Digitally signed by PS
 Date: 2019.10.24
 16:52:14 -07'00'

Dimensions are in millimeters.
 Tolerances:
 X: ± 0.3 mm
 X.X: ± 0.1 mm
 X.XX: ± 0.05 mm

Notes:
 RoHS compliant
 Function test: no open, no short circuit, no intermittent

Description:
 Connector, dc plug, 5.5x2.1xL20.5 mm, molding style, spring contacts

TENSILITY
 tel 1.541.323.3228 800 877.670.7118
 fax 1.541.323.4202 web tensility.com

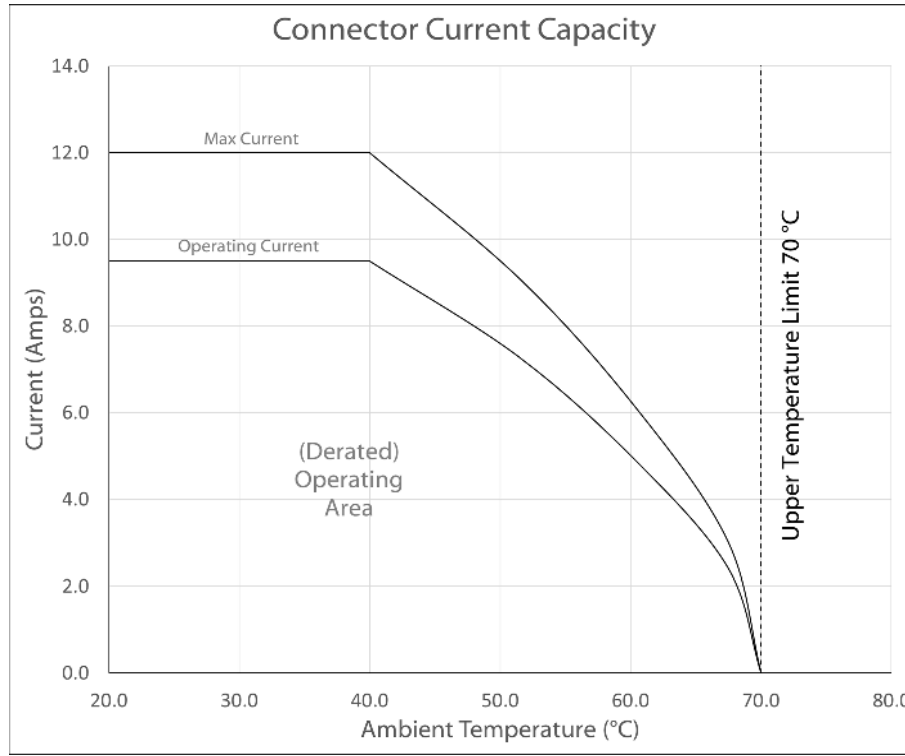
Size: A Part number: 50-00186
 Scale: 3:1 Sheet 1 of 2

Ratings

Maximum Operating Voltage: 48 Vdc
 Maximum Operating Current: 9.5 A

Operating Temperature Range

-25 to 70°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.

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	11/28/2011	Initial release	AW <small>Digitally signed by AW Date: 2019.10.24 16:35:25 -07'00'</small>	RoHS compliant	
A1	8/17/2012	Updated dimensions and materials	Verified: PS <small>Digitally signed by PS Date: 2019.10.24 16:52:31 -07'00'</small>	Function test: no open, no short circuit, no intermittent	
A2	11/9/2012	Added test data		Description: Connector, dc plug, 5.5x2.1xL20.5 mm, molding style, spring contacts	
					Size: A Part number: 50-00186 Scale: 3:1

