

**Materials**

1. Insulator: PBT + 15% glass fiber, UL 94 V-0, black
2. Terminal: C5191 phosphor bronze, 2 μm nickel plated
3. Shell: C3604 brass, 2 μm nickel plated

**Electrical Requirements**

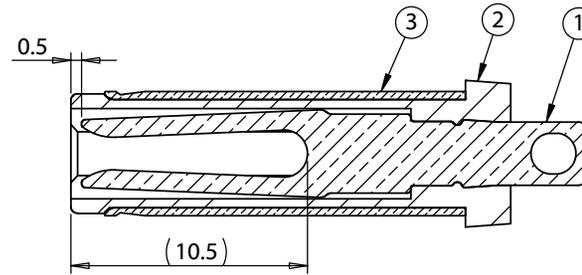
Dielectric strength: 1 min @ 500 Vac  
 Insulation resistance: 100 MΩ @ 500 Vdc  
 Contact resistance: 30 mΩ maximum

**Mechanical Requirements**

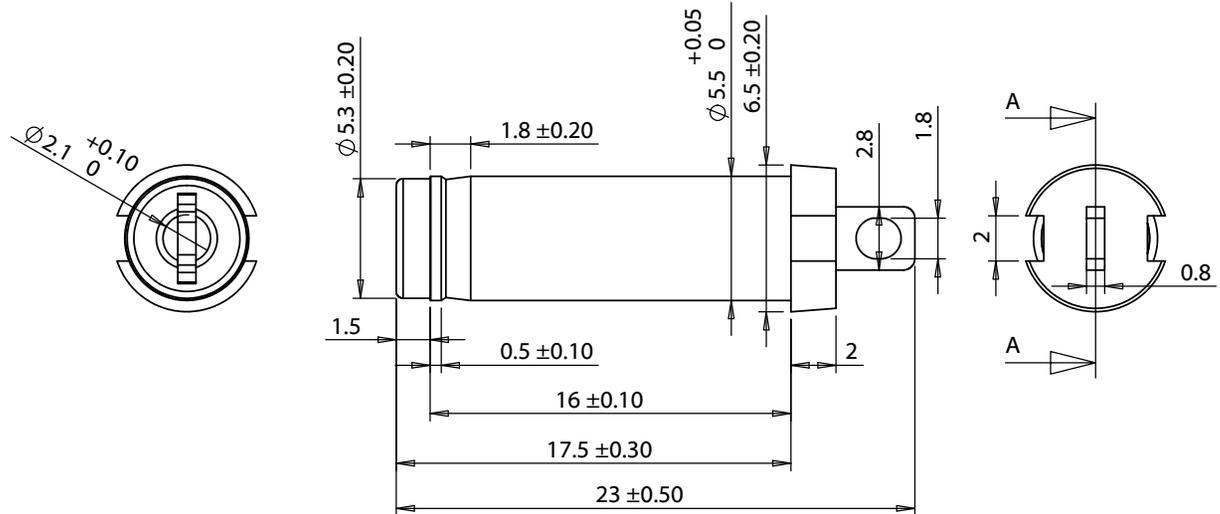
Insertion force: 0.3-3 kgf  
 Withdrawal force: 0.3-3 kgf  
 Life cycle: 5000 mating cycles while maintaining 0.3-2.0 kgf min. insertion force, 0.2-1.5 kgf min. withdrawal force and less than 100 mΩ contact resistance.

**Environmental Requirements**

Heat test: 70 °C, relative humidity 70-85% for 96 hours while maintaining contact resistance: 100 mΩ maximum, insulation resistance: 50 MΩ minimum, 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: 50 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:
A	09/02/2009	Initial release
A1	11/09/2012	Added test data
A2	12/29/2015	Modified tolerances
A3	10/3/2019	Increased connector ratings

Prepared:

Verified:

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, 5.5x2.1xL23 mm, molding style, spring contacts

**TENSILITY**

tel 1.541.323.3228 800 877.670.7118  
 fax 1.541.323.4202 web tensility.com

Size: Part number:  
 A 50-00024

Scale: 3:1

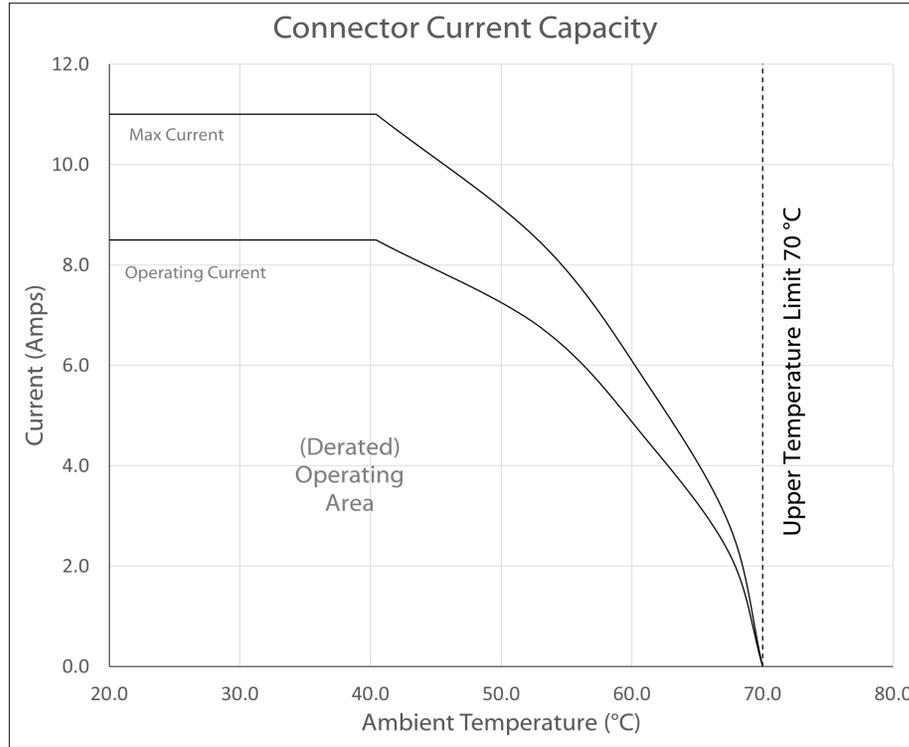
Sheet 1 of 2

**Ratings**

Maximum Operating Voltage: 48 Vdc  
 Maximum Operating Current: 8.5 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.

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