

## Materials

1. Shell, C3604 brass, 2 µm nickel plated
2. Spring contact, BeCu, 2 µm nickel plated
3. Pin, C3604 brass, 2 µm nickel plated
4. Insulator, PBT + 15% GF, black

## Electrical requirements

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

## Mechanical requirements

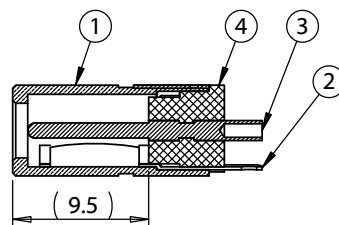
Insertion force: 0.3-2.5 kgf  
Withdrawal force: 0.3-2.5 kgf  
Durability: 5000 mating cycles while maintaining; min 0.3 kgf insertion force, min 0.2 kgf withdrawal force and less than 100 mΩ contact resistance.

## Environmental requirements

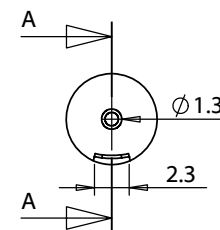
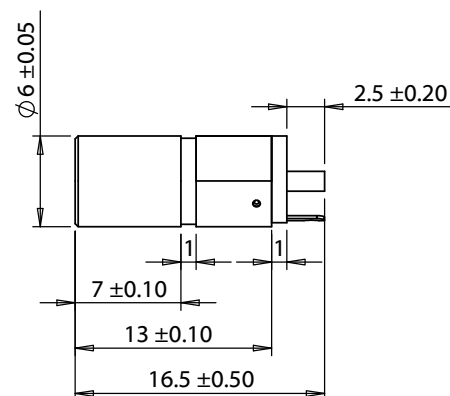
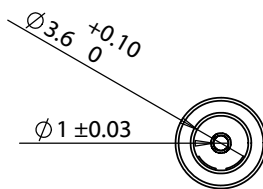
Damp test: 40 °C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 MΩ @ 500 Vdc minimum and a contact resistance of 100 mΩ or less.

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.



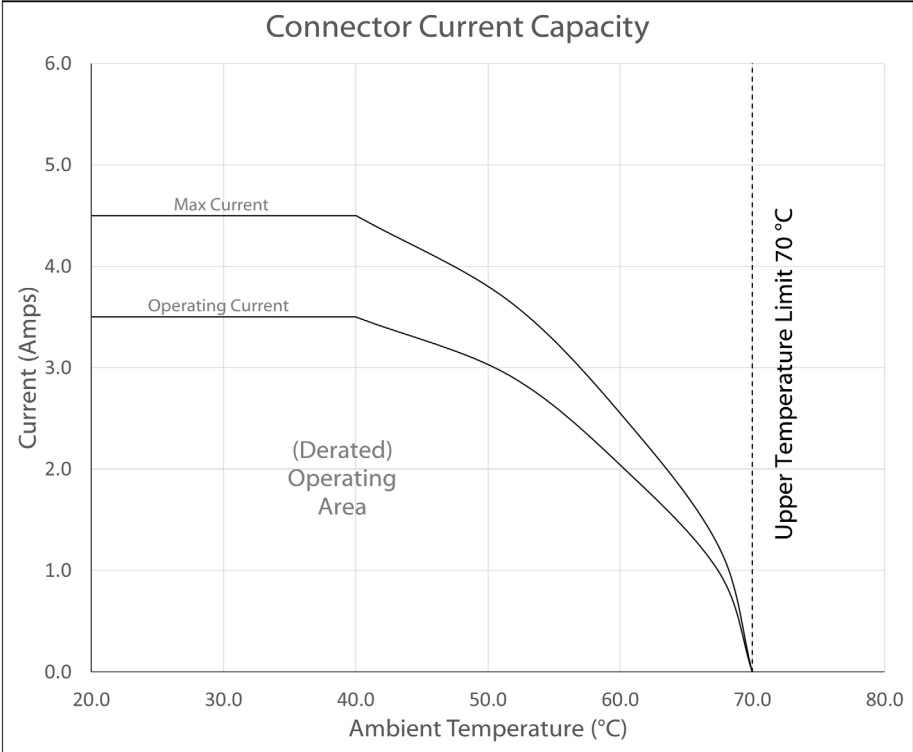
SECTION A-A



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	10/19/2009	Initial release	Verified:	RoHS compliant Function test: no open, no short circuit, no intermittent			
A1	12/08/2011	Updated measurements	Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm	Description: Connector, dc jack, 3.5x1.1xL16.5 mm, molding style	Size:	Part number:	
A2	03/14/2013	Updated spec format			A	50-00045	
A3	01/23/2018	Changed insulator material			Scale: 2:1		Sheet 1 of 2

**Ratings**  
Maximum Operating Voltage: 48 Vdc  
Maximum Operating Current: 3.5 A

**Operating Temperature Range**  
-25° to 70°, 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:	<div>TENSILITY</div> <div>tel 1.541.323.3228 800 877.670.7118</div> <div>fax 1.541.323.4202 web tensility.com</div>		
A	10/19/2009	Initial release	Verified:	RoHS compliant			
A1	12/08/2011	Updated measurements	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 50-00045		
A2	03/14/2013	Updated spec format		Description: Connector, dc jack, 3.5x1.1xL16.5 mm, molding style			
A3	01/23/2018	Changed insulator material			Scale: 2:1		Sheet 2 of 2