

**Materials**

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

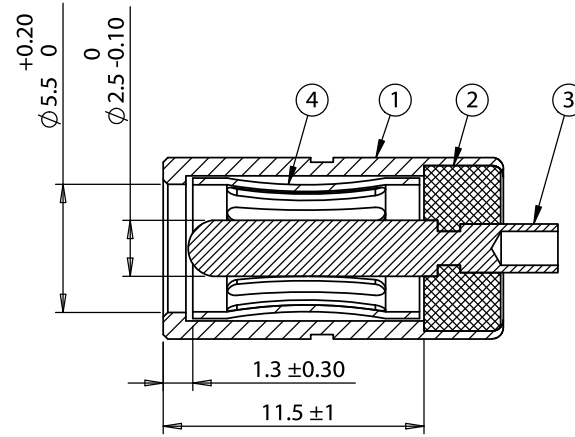
Insertion force: 0.3-3 kgf  
Withdrawal force: 0.3-3 kgf  
Durability: 5000 mating cycles while maintaining; 0.3 kgf min. insertion force, 0.2 kgf min. withdrawal force and a less than 100 mΩ contact resistance.

**Environmental requirements**

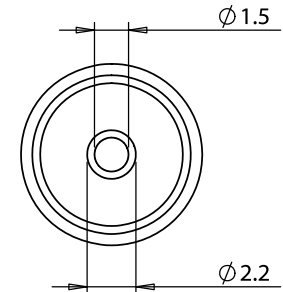
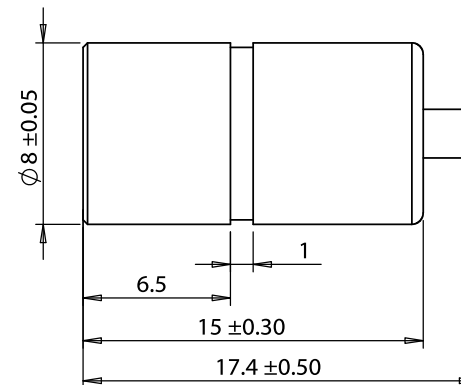
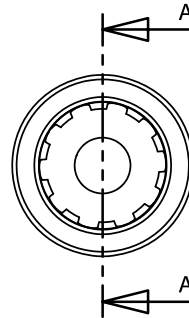
Damp test: 40 °C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 MΩ @ 500 Vdc minimum and a contact resistance of 100 mΩ or less.

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.



SECTION A-A



| Revision: | Date:      | Description:     |
|-----------|------------|------------------|
| A         | 09/02/2009 | Intiial release  |
| A1        | 11/09/2012 | Added test data  |
| A2        | 05/24/2018 | Changed material |
|           |            |                  |
|           |            |                  |

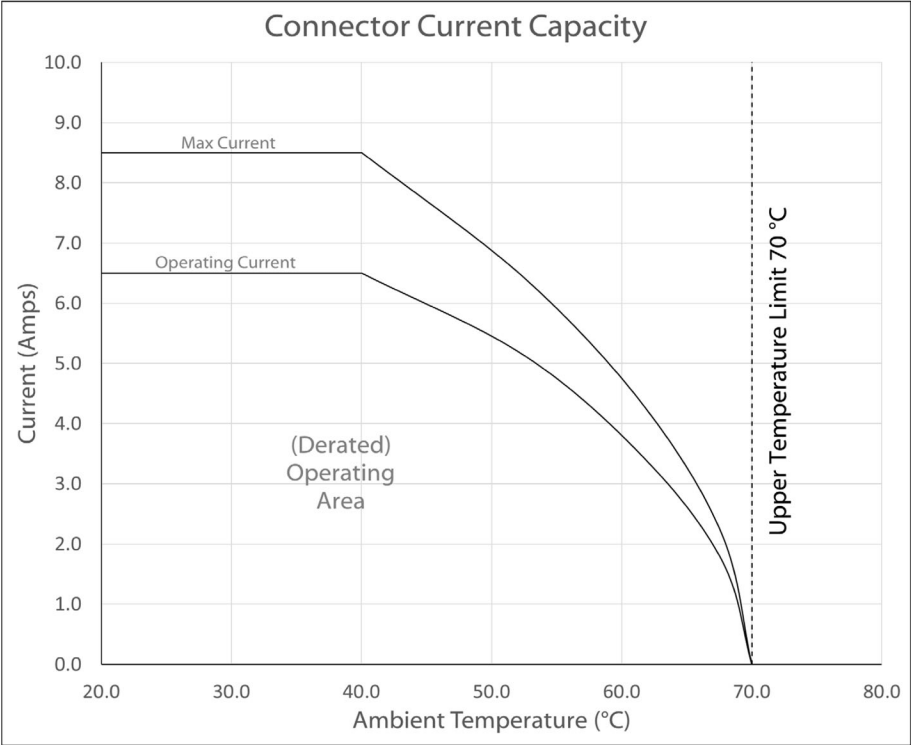
|                                                                                                     |
|-----------------------------------------------------------------------------------------------------|
| Prepared:<br>JP<br><small>Digitally signed by JP<br/>Date: 2018.05.25<br/>10:16:10 -07'00'</small>  |
| Verified:<br>AG<br><small>Digitally signed by AG<br/>Date: 2018.05.25 10:33:22<br/>-07'00'</small>  |
| Dimensions are in<br>millimeters.<br>Tolerances:<br>X: ± 0.5 mm<br>X.X: ± 0.3 mm<br>X.XX: ± 0.05 mm |

|                                                                                               |
|-----------------------------------------------------------------------------------------------|
| Notes:<br><br>RoHS compliant<br><br>Function test: no open, no short circuit, no intermittent |
| Description:<br>Connector, dc jack, 5.5x2.5xL17.4 mm, molding style                           |

|                                                                                                                 |                                 |              |
|-----------------------------------------------------------------------------------------------------------------|---------------------------------|--------------|
| <b>TENSILITY</b><br><small>tel 1.541.323.3228 800 877.670.7118<br/>fax 1.541.323.4202 web tensility.com</small> |                                 |              |
| Size:<br>A                                                                                                      | Part number:<br><b>50-00027</b> |              |
| Scale: 3:1                                                                                                      |                                 | Sheet 1 of 2 |

**Ratings**  
Operating Voltage: 48 Vdc  
Max Current: 6.5 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:<br>JP                                                                                  | 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         | 09/02/2009 | Intiial release  | Verified:<br>AG                                                                                  | RoHS compliant                                            |                                                                                                                     |              |              |
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| A2        | 05/24/2018 | Changed material |                                                                                                  | Description:                                              | A                                                                                                                   | 50-00027     |              |
|           |            |                  |                                                                                                  | Connector, dc jack, 5.5x2.5xL17.4 mm, molding style       | Scale: 2:1                                                                                                          |              | Sheet 2 of 2 |