#### Materials

- 1. Insulation block, POM, yellow
- 2. Insulator, PBT + 15% glass fiber, white
- 3. Shell, C3604 brass, 2 µm nickel plated
- 4. Spring contact, C5191 phosphor bronze, 2  $\mu m$  nickel plated

# **Electrical requirements**

Dielectric strength: 1 min @ 500 Vac Insulation resistance: 100 M $\Omega$  @ 500 Vdc Contact resistance: 30 m $\Omega$  or less

Rated voltage: 20 Vdc Rated current: 4 A

### **Mechanical requirements**

Insertion force: 0.5-2 kgf Withdrawal force: 0.3-1.5 kgf

Durability: 5000 mating cycles while maintaining; 0.4-2 kgf insertion force, 0.2-1.5 kgf withdrawal force and a less than  $100 \text{ m}\Omega$  contact resistance.

# **Environmental requirements**

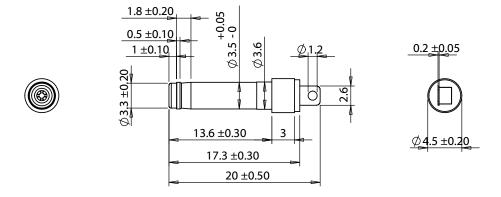
Damp test: 40 °C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 M $\Omega$  @ 500 Vdc minimum and a contact resistance of 100 m $\Omega$  or less.

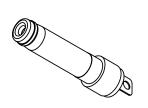
Dry test: 70 °C, RH 70-85% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain insulation resistance of 50 M $\Omega$  @ 500 Vdc minimum and a contact resistance of 100 m $\Omega$  or less.

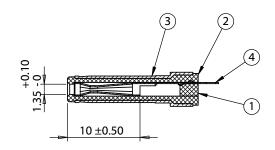
Salt spray test: 35 °C, RH 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 m $\Omega$ .

### Operating range

-25 to 70 °C, relative humidity of 85% or less







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| Revision<br>A | Date 11/7/2012 | Description Initial release | Notes RoHS compliant Function test: no open, no short circuit, no INT |   |  |           | 20802 Sockeye Place #130 Bend, OR 97701 USA tel 541.323.3228 fax 541.323.4202 800 877.670.7118 www.tensility.com |         |              |  |
|---------------|----------------|-----------------------------|---|---|--|-----------|--|---------|--------------|--|
|               |                |                             |   |   |  |           |  |         |              |  |
|               |                |                             | TOLERANCES:   | DESCRIPTION:<br>Connector, dc plug, 3.5x1.35xL20mm, brass,<br>nickel plated, molding type, white insulators |  | SIZE<br>A | E Part number 50-00315   |         |              |  |
|               |                |                             | X.XX: ± 0.05 mm   |   |  | SCALE     | E: 2:1   | WEIGHT: | SHEET 1 OF 1 |  |

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