

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
 Rated voltage: 20 Vdc
 Rated current: 7 A

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

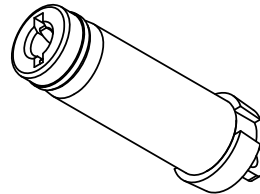
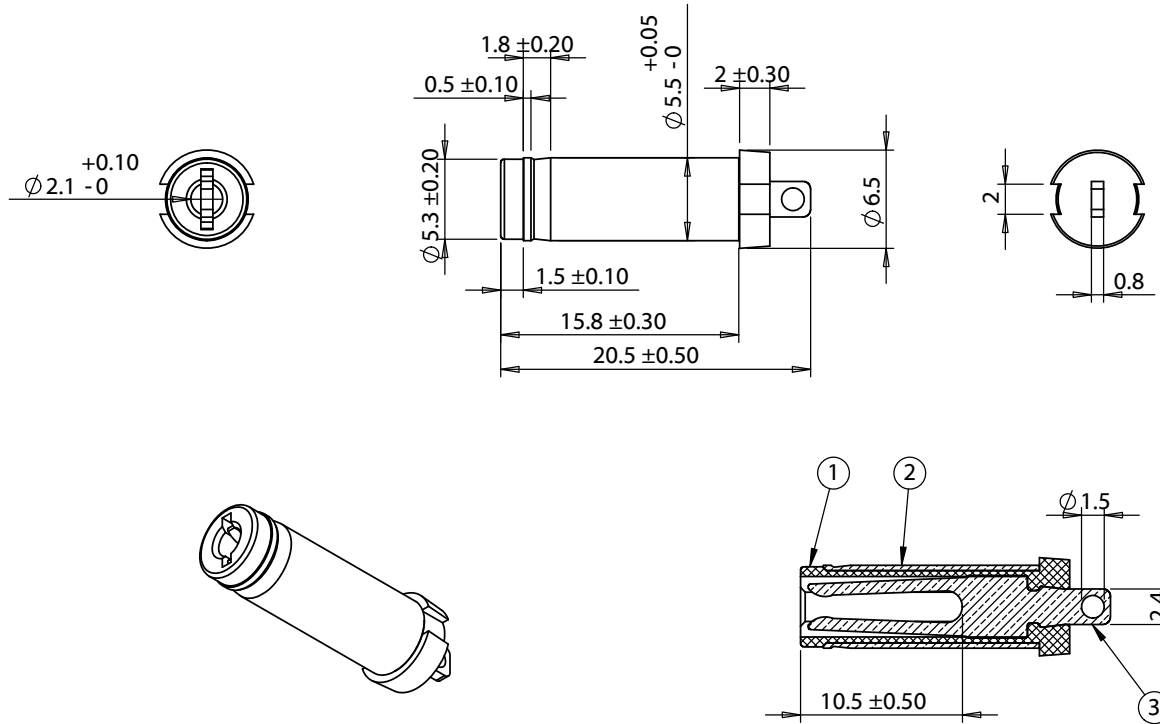
Damp test: 40 °C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 MΩ @ 500 Vdc minimum and a contact resistance of 100 mΩ or less.

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.

Operating range

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



| Revision | Date | Description |
|----------|------------|----------------------------------|
| A | 11/28/2011 | Initial release |
| A1 | 8/17/2012 | updated dimensions and materials |
| A2 | 11/9/2012 | Added test data |

Notes

RoHS compliant

Function test: no open, no short circuit, no INT

TENSILITY

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DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:
 X: ± 0.5 mm
 X.X: ± 0.3 mm
 X.XX: ± 0.05 mm

DESCRIPTION:
 Connector, dc plug, 5.5x2.1xL20.5 mm,
 molding style, spring contacts, for right angle
 applications

| | | | |
|------------|-----------------|--------------|--|
| SIZE | Part number | | |
| A | 50-00186 | | |
| SCALE: 2:1 | WEIGHT: | SHEET 1 OF 1 | |