

Materials

- 1. Insulator, PBT + 15% glass fiber, black
- 2. Shell, C2700 brass, 2 μ m nickel plated
- 3. Spring contact, C5191 phosphor bronze, 2 μ m nickel plated

Electrical requirements

Dielectric strength: 1 min @ 500 Vac
 Insulation resistance: 100 M Ω @ 500 Vdc
 Contact resistance: 30 m Ω 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 m Ω contact resistance.

Environmental requirements

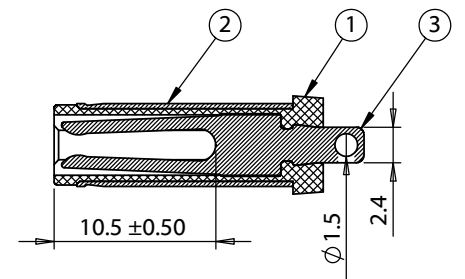
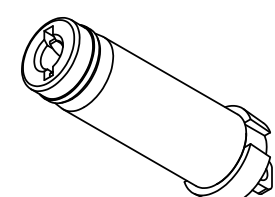
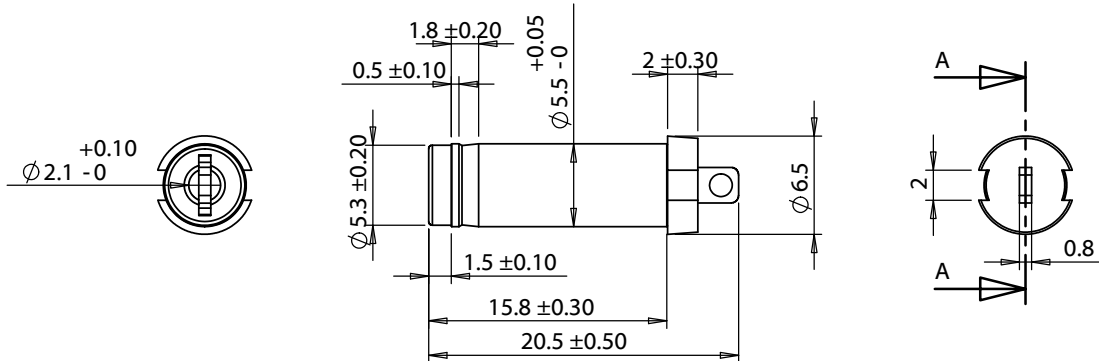
Damp test: 40 $^{\circ}$ C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 M Ω @ 500 Vdc minimum and a contact resistance of 100 m Ω or less.

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


Salt spray test: 35 $^{\circ}$ 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 Ω .

Operating range

-25 to 70 $^{\circ}$ C, relative humidity of 85% or less



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	11/28/2011	Initial release		RoHS and REACH compliant	
A1	8/17/2012	Updated dimensions and materials	Verified:	Function test: no open, no short circuit, no intermittent	Size: Part number: A 50-00186
A2	11/9/2012	Added test data	Dimensions are in millimeters. Tolerances: X: \pm 0.5 mm X.X: \pm 0.3 mm X.XX: \pm 0.05 mm	Description: Connector, dc plug, 5.5x2.1xL20.5 mm, molding style, spring contacts	
					Scale: 2:1
					
					Sheet 1 of 1