### Materials

- 1. Shell, C3604 brass, 2 µm nickel plated
- 2. Insulator, ABS, black
- 3. Pin, 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: 8 A

## 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 m $\Omega$  contact resistance.

# **Environmental requirements**

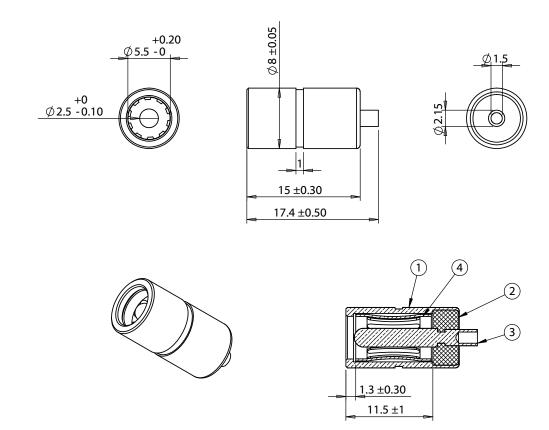
Damp test: 40 °C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 M $\Omega$  @ 500 Vdc minimum and a contact resistance of 100 m $\Omega$  or less.

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



Revision	Date 9/2/2009	Description Initial release	RoHS compliant	TENSILITY					
A1	11/9/2012	Added test data	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			
			DIMENSIONS ARE IN MILLIMETERS  TOLERANCES:  X: ± 0.5 mm  X.X: ± 0.3 mm  X.XX: ± 0.05 mm	DESCRIPTION: Connector, dc jack, 5.5x2.5xL17.4 mm, molding style	А	Part number 50-00027  ALE: 2:1 WEIGHT: SHEET 1 OF		SHEET 1 OF 1	

5 4 2 1