Materials

- 1. Shell, C3604 brass, 2 μm nickel plated
- 2. Insulator, PBT + 15% glass fiber, black
- 3. Center contact, C5191 phosphor bronze, 2 µm nickel

Electrical requirements

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

Rated voltage: 24 Vdc Rated current: 5 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 m Ω 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 Ω @ 500 Vdc minimum and a contact resistance of 100 m Ω or less.

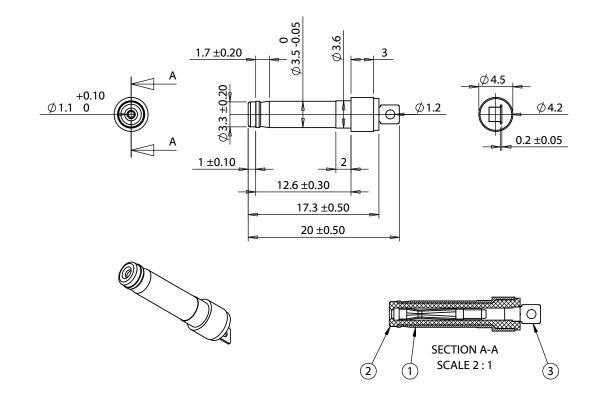
Dry test: 70 °C, RH 70-85% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain insulation resistance of 50 $M\Omega$ @ 500 Vdc minimum and a contact resistance of 100 $m\Omega$ or less.

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 Ω .

Operating range

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

5



Revision:	Date:	Description:	Prepared:	Notes:					
A	1/29/2009	Initial release		RoHS and REACH compliant		F	NSII .	ITY	
A1	8/16/2012	Added temperture range	Verified:	Function test: no open, no short circuit, no intermittent	tel 1.541.323.3228 800 877.670.7118				
A2	10/29/2012	Added mechanical and electrical specs	Dimensions are in millimeters.			fax 1.541.323.4202 web tensility.com			
A3	3/13/2013	Updated spec format	Tolerances: X: ± 0.5 mm	Description: Connector, dc plug, 3.5x1.1xL20 mm, molding style, spring contacts	Size: Part number: A 50-0001				
			X.X: ± 0.3 mm X.XX: ± 0.05 mm		Scale:	5:1		Sheet 1 of 1	