# Ratings

Voltage: 24 Vdc Current: 7 A

## **Operating Temperature Range**

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

## Materials

1. Insulator: PBT + 15% GF, black

2. Shell: C3604 brass, 2 µm nickel plated

3. Pin: C2680 brass, 2 µm nickel plated

4 Nut: C3604 brass, 2 µm nickel plated

# **Electrical Requirements**

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

# **Mechanical Requirements**

Insertion force: 0.3-3 kgf Withdrawal force: 0.3-3 kgf

Life cycle: 5000 mating cycles while maintaining 0.3-2 kgf min. insertion force, 0.2-1.5 kgf min. withdrawal force and less than  $100 \text{ m}\Omega$  contact resistance.

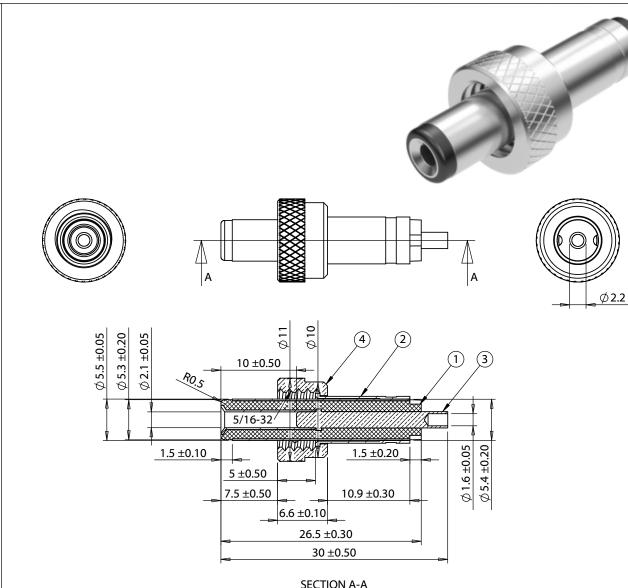
## **Environmental Requirements**

Heat test: 70 °C, relative humidity 70-85% for 96 hours without deformation while maintaining contact resitance after test 100 mohms or less, and insulation resistance 50 Mohms/500 Vdc minimum

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Humidity test: 40 °C, relative humidity 90-100% for 96 hours without deformation while maintaining dielectric strength 500 Vac/1 minute, insulation resistance 50 Mohms/500 Vdc minimum, and contact resistance 100 mohms or less

Salt spray test:  $35\pm2$  °C, relative humidity 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 m $\Omega$ .

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Revision:	Date:	Description:	Prepared:	Notes:					
A	5/19/2009	Initial release		RoHS and REACH compliant		TENSILITY			
A1	11/11/2015	Modified insulator material	Verified:	Function test: no open, no short circuit, no intermittent  Description: Connector, dc plug, 5.5x2.1xBL7.5xL30 locking style, brass nickel plated, threaded nut 5/16-32		tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com			
A2	11/20/2017	Updated specifications	Dimensions are in						
			millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm						
			X.XX: ± 0.05 mm			Scale:	2:1		Sheet 1 of 1

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