## **Operating Temperature Range**

-10° to 60° C

#### Materials

- 1. Insulator: PBT, black
- 2. Pin: copper alloy, nickel plated
- 3. Shell: brass, nickel plated
- 4. Spring contact: stainless steel, nickel plated
- 5. Spring contact collar: copper alloy, nickel plated
- 6. Solder tab: brass, nickel plated
- 7. Washer p/n 56-00001: cold rolled steel, nickel plated
- 8. Nut p/n 56-00000: brass, nickel plated

#### **Electrical Requirements**

Dielectric strength: 1 min @ 500 Vac Insulation resistance: 100 M $\Omega$  @ 500 Vdc Contact resistance: 50 m $\Omega$  or less

### Mechanical Requirements

Insertion force: 0.3-3 kgf Withdrawal force: 0.2-3 kgf Terminal strength: a static load of 150 gf shall be applied

to the terminal for 15 seconds in any direction.

Life cycle: 5000 mating cycles while maintaining less than 100 m $\Omega$  contact resistance, 50M $\Omega$  insulation resistance minimum, and dielectric strength of 500 Vac for 1 minute withstand voltage.

# Soldering

Solderability: 75% minimum coverage when terminals dipped 2mm in 245  $\pm 5$  °C solder bath for 3  $\pm 0.5$  seconds

- Solder bath durability: no deformation when immersed in 255  $\pm 5~^{\rm C}$  bath for 5 seconds or less
- Solder iron durability: no deformation when exposed to 350  $\pm 10$  °C for 3  $\pm 0.5$  seconds

### **Environmental Requirements**

Date:

8/05/2016

1/03/2017

8/25/2017

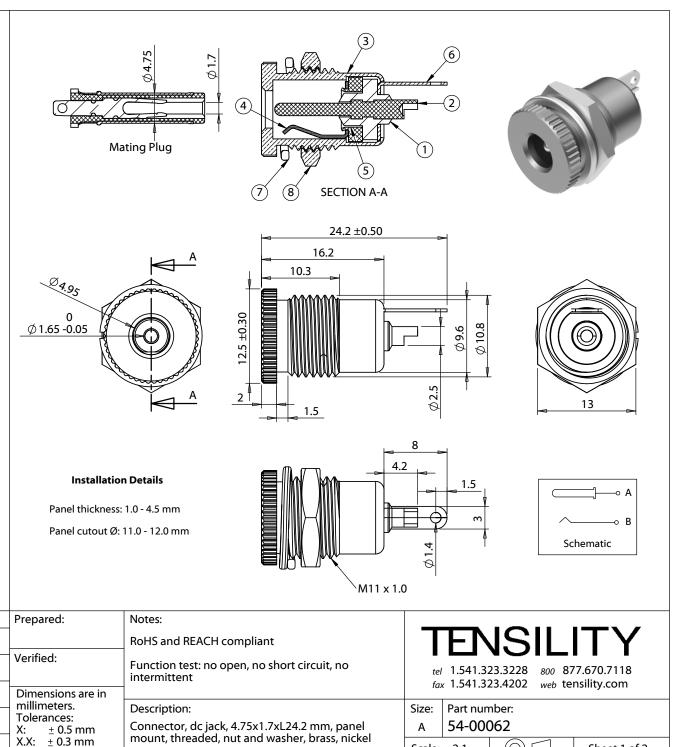
Revision:

А

A1

A2

Cold test:  $-25 \pm 3$  °C for 48 hours without deformation Heat test: 70 ±2 °C, for 48 hours without deformation Humidity test: 40 ±2 °C, relative humidity 90-95% for 48 hours without deformation



Scale: 2:1

2

 $\bigcirc$ 

Sheet 1 of 2

1

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Description:

Initial release

Updated notes

Updated materials list

3

X.XX: ± 0.05 mm

#### Ratings Maximum Operting Voltage: 48 Vdc **Connector Current Capacity** Maximum Operating Current: 6.5 A 10.0 9.0 Max Current 8.0 ů Upper Temperature Limit 60 7.0 **Operating Current** Current (Amps) 6.0 5.0 4.0 (Derated) Operating 3.0 Area 2.0 1.0 0.0 35.0 40.0 45.0 50.0 15.0 20.0 25.0 30.0 55.0 60.0 65.0 Ambient Temperature (°C) Testing based on IEC 60512-5-2. Max current curve generated with isolated test article under controlled environmental conditions, and does not take into account external factors such as housings, mating cables, or othercircuitry. Operating current curve (derated by 20% of maximum values) accounts for external factors, and manufacturing variation. Revision: Date: Description: Prepared: Notes: TENSILITY 8/05/2016 А Initial release **RoHS and REACH compliant** Verified: Function test: no open, no short circuit, no 1/03/2017 Updated materials list A1 tel 1.541.323.3228 800 877.670.7118 intermittent fax 1.541.323.4202 web tensility.com A2 8/25/2017 Updated notes Dimensions are in millimeters. Description: Part number: Size: Tolerances: 54-00062 Connector, dc jack, 4.75x1.7xL24.2 mm, panel А ± 0.5 mm X: mount, threaded, nut and washer, brass, nickel X.X: ± 0.3 mm $(\bigcirc)$ Sheet 2 of 2 Scale: 2:1 X.XX: ± 0.05 mm

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