### Ratings

Operating temperature range: -10° to 60° C Flammability: UL 94 V-0

# 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 MΩ @ 500 Vdc Contact resistance: 50 m $\Omega$  or less

# Mechanical Requirements

Insertion force: 0.3-3 kaf 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.

### Solderina

- 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 ±5 °C bath for 5 seconds or less
- Solder iron durability: no deformation when exposed to 350 ±10 °C for 3 ±0.5 seconds

Description:

Initial release

Updated notes

Updated materials list

Date:

8/05/2016

1/04/2017

8/25/2017

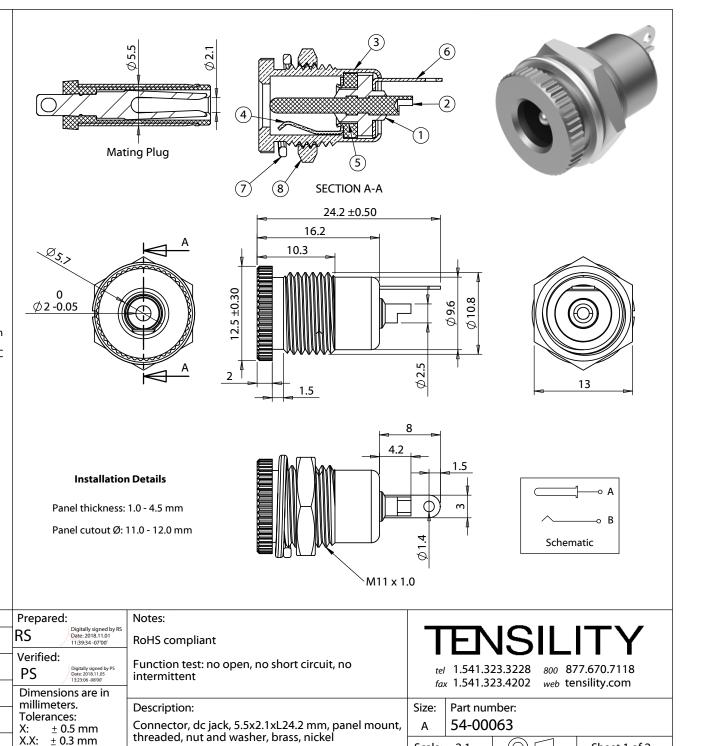
Revision:

А

A1

A2

**Environmental Requirements** Cold test: -25 ±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

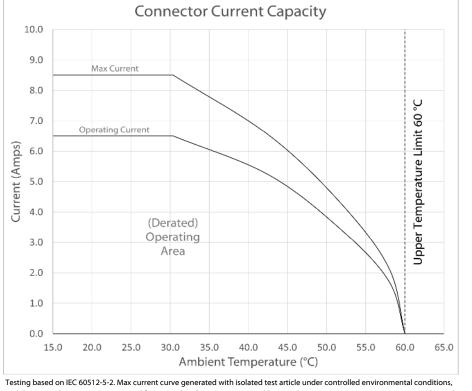
Sheet 1 of 2

5

3

X.XX: ± 0.05 mm

# Ratings Connector Maximum Operating Voltage: 48 Vdc 10.0 Maximum Operating Current: 6.5 A 9.0 Max Current Max Current



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:  |   |   |         |              |  |
|-----------|-----------|------------------------|--|---|---|---|---------|--------------|--|
| А         | 8/05/2016 | Initial release        | RS Digitally signed by RS<br>Date: 2018.11.01<br>11:39:54-07'00'         | RoHS compliant  |   |   | Fľ      | NSILITY      |  |
| A1        | 1/04/2017 | Updated materials list | Verified:<br>PS Digitally signed by PS Date: 2018.11.05 13:23:18 -06'00' | S       Digitally signed by 55<br>bate 2011.05 112218       Function test: no open, no short circuit, no<br>intermittent         Primessions are in<br>nillimeters.<br>olerances:<br>: ± 0.5 mm<br>.X: ± 0.3 mm       Description:<br>Connector, dc jack, 5.5x2.1xL24.2 mm, panel mount,<br>threaded, nut and washer, brass, nickel |   | tel 1.541.323.3228 800 877.670.7118<br>fax 1.541.323.4202 web tensility.com |         |              |  |
| A2        | 8/25/2017 | Updated notes          | Dimensions are in  |   |   |   |         |              |  |
|           |           |                        | millimeters.   |   |   | Size:   | Part nu | Part number: |  |
|           |           |                        | X: ± 0.5 mm  |   |   | A   | 54-00   | 063          |  |
|           |           |                        | X.X: ± 0.3 mm<br>X.XX: ± 0.05 mm   |   |   | Scale   | 2:1     | Sheet 2 of 2 |  |
| 5 4       |           |                        | 4  | 3   | 2 |   |         | ]            |  |