## Ratings

Voltage: 24 Vdc
Current: 7 A

## Operating Temperature Range

$-25^{\circ}$ to $70^{\circ} \mathrm{C}$, relative humidity of $85 \%$ or less

## Materials

1. Insulator: PBT $+15 \%$ GF, black
2. Shell: C3604 brass, $2 \mu \mathrm{~m}$ nickel plated
3. Pin: C2680 brass, $2 \mu \mathrm{~m}$ nickel plated

4 Nut: C3604 brass, $2 \mu \mathrm{~m}$ nickel plated

## Electrical Requirements

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

## Mechanical Requirements

Insertion force: $0.3-3 \mathrm{kgf}$
Withdrawal force: 0.3-3 kgf
Life cycle: 5000 mating cycles while maintaining $0.3-2 \mathrm{kgf} \min$. insertion force, $0.2-1.5 \mathrm{kgf} \mathrm{min}$. withdrawal force and less than $100 \mathrm{~m} \Omega$ contact resistance.

## Environmental Requirements

Heat test: $70^{\circ} \mathrm{C}$, relative humidity $70-85 \%$ for 96 hours without deformation while maintaining contact resitance after test 100 mohms or less, and insulation resistance 50 Mohms $/ 500 \mathrm{Vdc}$ minimum
Humidity test: $40^{\circ} \mathrm{C}$, relative humidity $90-100 \%$ for 96 hours without deformation while maintaining dielectric strength $500 \mathrm{Vac} / 1$ minute, insulation resistance $50 \mathrm{Mohms} / 500 \mathrm{Vd}$ minimum, and contact resistance 100 mohms or less Salt spray test: $35 \pm 2^{\circ} \mathrm{C}$, relative humidity $90-95 \%, 5 \% \mathrm{NaCl}$
mist for 24 hrs. Wash parts after test. Maintain mechanical mist for 24 hrs . Wash parts after test. Maintain mechanical


SECTION A-A

| Revision: | Date: | Description: | Prepared: AG | Notes: <br> RoHS and REACH compliant <br> Function test: no open, no short circuit, no intermittent | tel 1.541.323.3228 <br> $800 \quad 877.670 .7118$ fax 1.541.323.4202 web tensility.com |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 5/19/2009 | Initial release |  |  |  |  |  |
| A1 | 11/11/2015 | Modified insulator material | Verified: PS |  |  |  |  |
| A2 | 11/20/2017 | Updated specifications | Dimensions are in millimeters. <br> Tolerances: $\begin{array}{ll} X: & \pm 0.5 \mathrm{~mm} \\ X . X: & \pm 0.3 \mathrm{~mm} \end{array}$ $\mathrm{X} . \mathrm{XX}: \pm 0.05 \mathrm{~mm}$ |  |  |  |  |
|  |  |  |  | Description: <br> Connector, dc plug, $5.5 \times 2.1 \times B L 7.5 \times L 30$ locking style, brass nickel plated, threaded nut 5/16-32 | Size: Part number: <br> A <br> $50-00010$  |  |  |
|  |  |  |  |  | Scale: 2:1 | ( $\square$ | Sheet 1 of 1 |
| 54 |  |  |  |  | - 1 |  |  |

