## Operating temperature range

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

## Materials

1. Insulator, PBT $+15 \%$ glass fiber, black
2. Pin, C-5191 P-Bronze, $2 \mu \mathrm{~m}$ nickel plated
3. Shell, C3604 brass, $2 \mu \mathrm{~m}$ nickel plated

## Electrical requirements

Dielectric strength: 1 min @ 500 Vac
Insulation resistance: $100 \mathrm{M} \Omega$ @ 500 Vdc
Contact resistance: $30 \mathrm{~m} \Omega$ or less
Rated voltage: 20 Vdc
Rated current: 7 A

## Mechanical requirements

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

## Environmental requirements

Damp test: $40^{\circ} \mathrm{C}$, Relative Humidity 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 $50 \mathrm{M} \Omega$ @ 500 Vdc minimum and a contact resistance of $100 \mathrm{~m} \Omega$ or less.

Dry test: $70^{\circ} \mathrm{C}$, Relative Humidity 70-85\% for 96 hrs . Cool to ambient and recover for 2 hours. Maintain insulation resistance of $50 \mathrm{M} \Omega$ @ 500 Vdc minimum and a contact resistance of $100 \mathrm{~m} \Omega$ 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 requirements and a contact resistance of less than $80 \mathrm{~m} \Omega$.

| REVISION | DATE | DESCRIPTION |
| :--- | :--- | :--- |
| A | $10 / 21 / 2009$ | Initial release |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

NOTES
RoHS and REACH compliant
Function test: no open, no short circuit, no intermittent
$\qquad$
DIMENSIONS ARE IN
MILLIMETERS
TOLERANCES:
Up to 1.0: $\pm 0.1 \mathrm{~mm}$
1.0 to $10.0: \pm 0.2 \mathrm{~mm}$

Over 10.0: $\pm 0.3 \mathrm{~mm}$

## DESCRIPTION:

Connector, dc plug, $5.5 \times 2.1 \times \mathrm{L} 24.5 \mathrm{~mm}$, molding style, spring contacts, twist lock

## TENSILITY

20802 Sockeye Place \#130
Bend, OR 97701 USA
tel 541.323.3228 fax 541.323.4202 800 877.670.7118 www.tensility.com

## SIZE PART NUMBER <br> A <br> 50-00070

SCALE: 5:1 WEIGHT:

