## Materials

1. Insulation block, POM, yellow
2. Insulator, PBT $+15 \%$ glass fiber, white
3. Shell, C3604 brass, $2 \mu \mathrm{~m}$ nickel plated
4. Spring contact, C5191 phosphor bronze, $2 \mu \mathrm{~m}$ 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: 4 A

## Mechanical requirements

Insertion force: $0.5-2 \mathrm{kgf}$
Withdrawal force: $0.3-1.5 \mathrm{kgf}$
Durability: 5000 mating cycles while maintaining; 0.4-2 kgf insertion force, 0.2-1.5 kgf withdrawal force and a less than $100 \mathrm{~m} \Omega$ contact resistance

## Environmental requirements

Damp test: $40^{\circ} \mathrm{C}, \mathrm{RH} 90-100 \%$ 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: $70^{\circ} \mathrm{C}, \mathrm{RH} 70-85 \%$ 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: $35^{\circ} \mathrm{C}, \mathrm{RH} 90-95 \%, 5 \% \mathrm{NaCl}$ mist for 24 hrs . Wash parts after test. Maintain mechanical requirements and a contact resistance of less than $80 \mathrm{~m} \Omega$.

## Operating range <br> -25 to $70^{\circ} \mathrm{C}$, relative humidity of $85 \%$ or less

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| Revision | Date | Description |  |  |  |
| A | $11 / 7 / 2012$ | Initial release |  |  |  |
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| Notes <br> RoHS compliant <br> Function test: no open, no short circuit, no INT |  | TENSILITY <br> 20802 Sockeye Place \#130 <br> Bend, OR 97701 USA <br> tel 541.323.3228 fax 541.323.4202 <br> 800877.670 .7118 www.tensility.com |  |  |
| :---: | :---: | :---: | :---: | :---: |
| DIMENSIONS ARE IN MILLIMETERS <br> TOLERANCES: <br> $\begin{array}{ll}\text { X: } & \pm 0.5 \mathrm{~mm} \\ \text { X.X: } \\ \text { X. } \mathrm{XX}: ~ & \pm 0.3 \mathrm{~mm} \\ & +0.05 \mathrm{~mm}\end{array}$ | DESCRIPTION: <br> Connector, dc plug, $3.5 \times 1.35 \times L 20 \mathrm{~mm}$, brass, nickel plated, molding type, white insulators | SIZE Part <br> A $\mathbf{5 0}$ | $0315$ |  |
|  |  | SCALE: 2:1 | WEIGHT: | SHEET 1 OF 1 |

