## Materials

1. Brass, nickel plating, $1 \mu$ minimum
2. Nylon PA46, black

## Electrical requirements

Dielectric strength: 1 min @ 250 Vac
Insulation resistance: $100 \mathrm{M} \Omega$ @ 500 Vdc
Contact resistance: $50 \mathrm{~m} \Omega$ or less

## Mechanical requirements

Insertion force: $0.3 \sim 4 \mathrm{kgf}$
Withdrawl force: $0.3 \sim 4 \mathrm{kgf}$
Durability: 5000 mating cycles while maintaining insertion force of $0.3 \sim 4 \mathrm{~kg}$; withdrawl force of $0.3 \sim 4 \mathrm{kgf}$; contact resistance of $50 \mathrm{~m} \Omega$ or less.

## Environmental tests

Damp test: $40^{\circ} \mathrm{C}$, 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 $50 \mathrm{M} \Omega @ 500 \mathrm{Vdc}$ minimum.

Dry test: $70^{\circ} \mathrm{C}, \mathrm{RH} 70-85 \%$ for 96 hrs . Cool to ambient and recover for 2 hours. Maintain contact resistance of 100 $\mathrm{m} \Omega$ or less with no looseness or deformation.

Salt spray test: $35 \pm 2{ }^{\circ} \mathrm{C}, \mathrm{RH} 90-95 \%, 5 \% \mathrm{NaCl}$ mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than $100 \mathrm{~m} \Omega$.

## Operating rang

-25 to $70^{\circ} \mathrm{C}$

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| REVISION | DATE | DESCRIPTION |
| A | 7/9/2015 | Initial release |
| A1 | 10/27/2015 | Added PCB dimensioning and wiring information |
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PCB Layout

