

Materials

1. Shell, C3604 brass, 2 µm nickel plated
2. Spring contact, BeCu, 2 µm nickel plated
3. Pin, C3604 brass, 2 µm nickel plated
4. Insulator, PBT + 15% GF, black

Electrical requirements

Dielectric strength: 1 min @ 500 Vac
 Insulation resistance: 100 MΩ @ 500 Vdc
 Contact resistance: 30 mΩ or less

Mechanical requirements

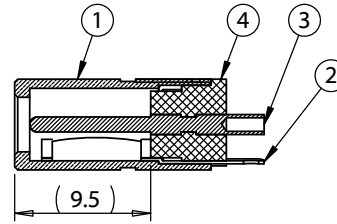
Insertion force: 0.3-2.5 kgf
 Withdrawal force: 0.3-2.5 kgf
 Durability: 5000 mating cycles while maintaining; min 0.3 kgf insertion force, min 0.2 kgf withdrawal force and less than 100 mΩ contact resistance.

Environmental requirements

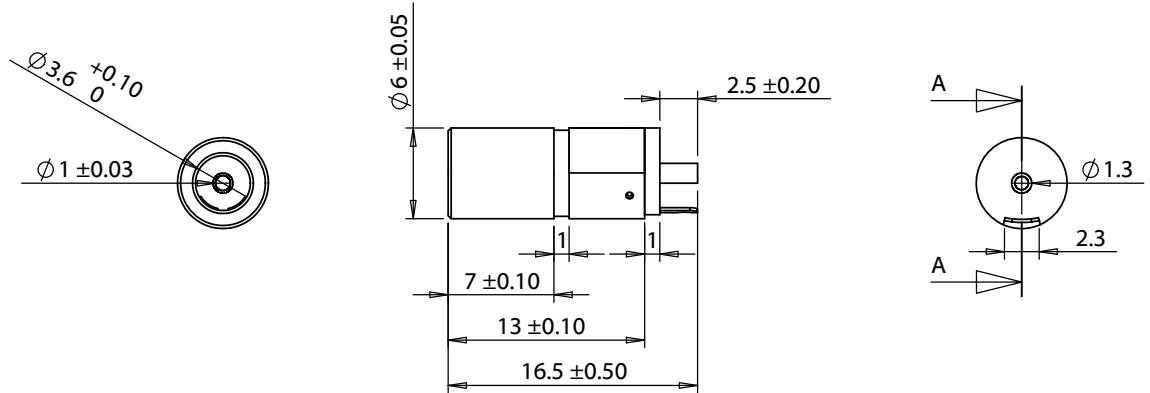
Damp test: 40 °C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 MΩ @ 500 Vdc minimum and a contact resistance of 100 mΩ or less.

Dry test: 70 °C, RH 70-85% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain insulation resistance of 50 MΩ @ 500 Vdc minimum and a contact resistance of 100 mΩ or less.

Salt spray test: 35 °C, RH 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 mΩ.



SECTION A-A



Revision:	Date:	Description:
A	10/19/2009	Initial release
A1	12/08/2011	Updated measurements
A2	03/14/2013	Updated spec format
A3	01/23/2018	Changed insulator material

Prepared: JW
Digitally signed by JW
 Date: 2019.06.10
 16:08:59 -07'00'

Verified: GL
Digitally signed by GL
 Date: 2019.06.10
 16:12:00 -07'00'

Dimensions are in millimeters.
 Tolerances:
 X: ± 0.5 mm
 X.X: ± 0.3 mm
 X.XX: ± 0.05 mm

Notes:
 RoHS compliant
 Function test: no open, no short circuit, no intermittent

Description:
 Connector, dc jack, 3.5x1.1xL16.5 mm, molding style

TENSILITY

tel 1.541.323.3228 800 877.670.7118
 fax 1.541.323.4202 web tensility.com

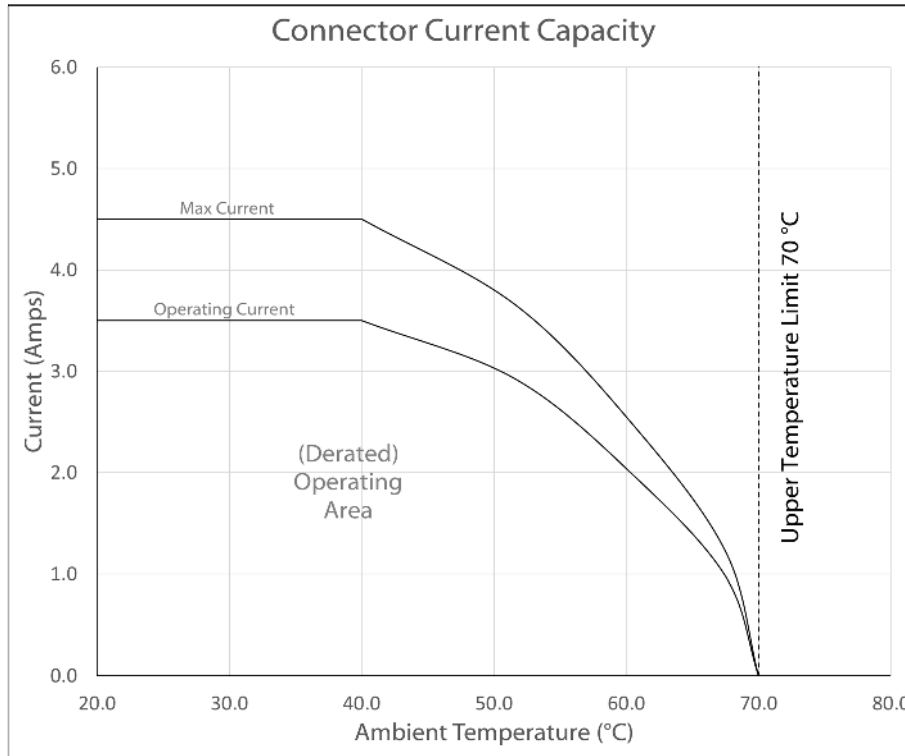
Size:	Part number:
A	50-00045
Scale: 2:1	Sheet 1 of 2

Ratings

Maximum Operating Voltage: 48 Vdc
 Maximum Operating Current: 3.5 A

Operating Temperature Range

-25° to 70°, relative humidity of 85% or less



Testing based on IEC 60512-5-2. Max current curve generated with isolated test article under controlled environmental conditions, and does not take into account external factors such as housings, mating cables, or other circuitry. Operating current curve (derated by 20% of maximum values) accounts for external factors, and manufacturing variation.

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Prepared: JW
Digitally signed by JW
 Date: 2019.06.10
 16:09:23 -0700'

Verified: GL
Digitally signed by GL
 Date: 2019.06.10
 16:12:17 -0700'

Dimensions are in millimeters.
 Tolerances:
 X: ± 0.3 mm
 X.X: ± 0.1 mm
 X.XX: ± 0.05 mm

Notes:
 RoHS compliant

Function test: no open, no short circuit, no intermittent

Description:
 Connector, dc jack, 3.5x1.1xL16.5 mm, molding style

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Size: A	Part number: 50-00045
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