

Materials

- 1. Insulator, PBT + 15% GF, black
- 2. Pin, C3604 brass, 2 µm nickel plated
- 3. Shell, C3604 brass, 2 µm nickel plated
- 4. Spring contact, C5191 phosphor bronze, 2 µm nickel plated

Electrical requirements

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

Mechanical requirements

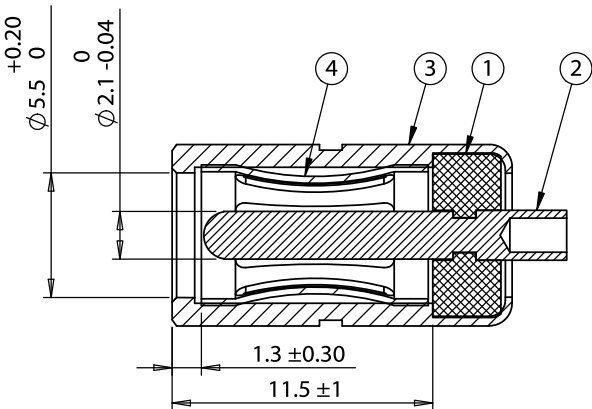
Insertion force: 0.3-3 kgf
Withdrawal force: 0.3-3 kgf
Durability: 5000 mating cycles while maintaining; 0.3 kgf min. insertion force, 0.2 kgf min. withdrawal force and a less than 100 mΩ contact resistance.

Environmental requirements

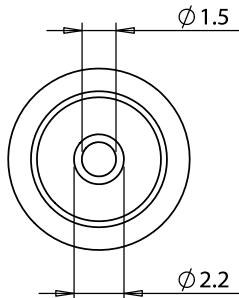
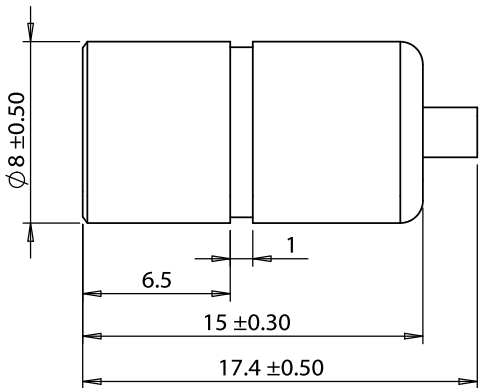
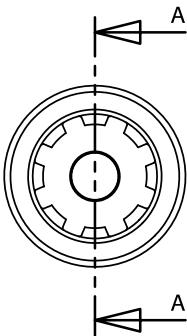
Damp test: 40 °C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 MΩ @ 500 Vdc minimum and a contact resistance of 100 mΩ or less.

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
SCALE 3 : 1



Revision:	Date:	Description:
A	09/02/2009	Intiial release
A1	11/09/2012	Added test data
A2	10/29/2015	Modified electrical requirements
A3	04/19/2016	Modified tolerances
A4	05/22/2018	Changed material and added test data

Prepared: JP
Verified: AG
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, 5.5x2.1xL17.4 mm, molding style

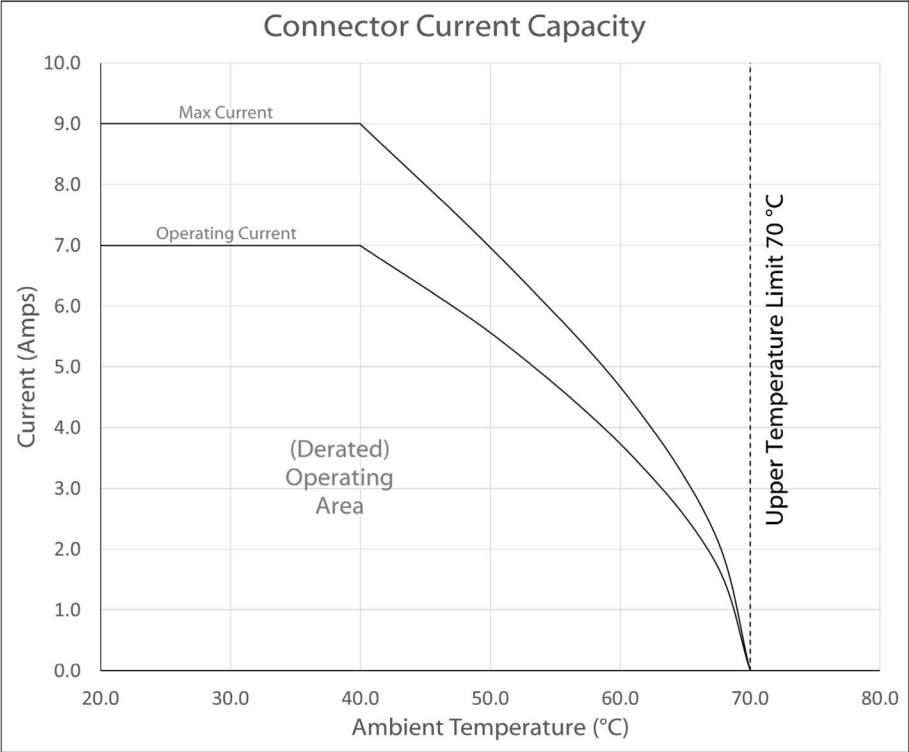
TENSILITY

tel 1.541.323.3228 800 877.670.7118
fax 1.541.323.4202 web tensility.com

Size: A	Part number: 50-00025
Scale: 4:1	Sheet 1 of 2

Ratings
Operating Voltage: 48 Vdc
Max Current: 7 A

Operating Temperature Range
-25° to 70 °C, 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.

Revision:	Date:	Description:
A	09/02/2009	Intiial release
A1	11/09/2012	Added test data
A2	10/29/2015	Modified electrical requirements
A3	04/19/2016	Modified tolerances
A4	05/22/2018	Changed material and added test data

Prepared: JP	Digitally signed by JP Date: 2018.05.25 10:13:37 -07'00'
Verified: AG	Digitally signed by AG Date: 2018.05.25 10:23:46 -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, 5.5x2.1xL17.4 mm, molding style

TENSILITY

tel 1.541.323.3228 800 877.670.7118
fax 1.541.323.4202 web tensility.com

Size: A	Part number: 50-00025
Scale: 4:1	 Sheet 2 of 2