### Materials

- 1. Shell, C3604 brass, 2 µm nickel plated
- 2. Insulator, PBT+ 15% GF, UL 94 HB, black
- 3. Pin, 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 M $\Omega$  @ 500 Vdc Contact resistance: 30 m $\Omega$  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  $100 \text{ m}\Omega$  contact resistance.

#### **Environmental requirements**

Revision: Date:

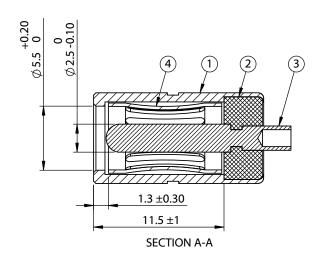
Damp test: 40 °C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 M $\Omega$  @ 500 Vdc minimum and a contact resistance of 100 m $\Omega$  or less.

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

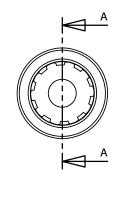
Salt spray test: 35 °C, RH 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 m $\Omega$ .

Description:

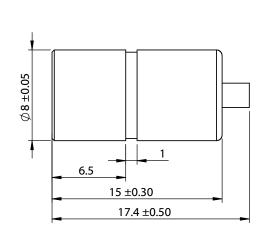
5

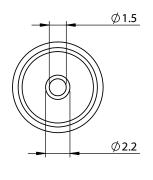






Digitally Notes:





110110111		- cocp	signed by MP	110103.		
Α	09/02/2009	Intiial release	Date: 2023,03.13 10.4445 -0700'	RoHS and REACH compliant		E
A1	11/09/2012	Added test data	Verified: JD Digitally signed by JD Date: 2023.03.13 14:5434-0700	Function test: no open, no short circuit, no intermittent	tei	
A2	05/24/2018	Changed material	Dimensions are in			x 1.54
			millimeters.	Description:	Size:	Part
			Tolerances:  X: ± 0.5 mm	Connector, dc jack, 5.5x2.5xL17.4 mm, molding	Α	50-0
			X.X: ± 0.3 mm X.XX: ± 0.05 mm	style	Scale:	3:1

Prepared: \_ \_ \_

541.323.3228 *800* 877.670.7118 641.323.4202 *web* tensility.com

t number: -00027

Sheet 1 of 2

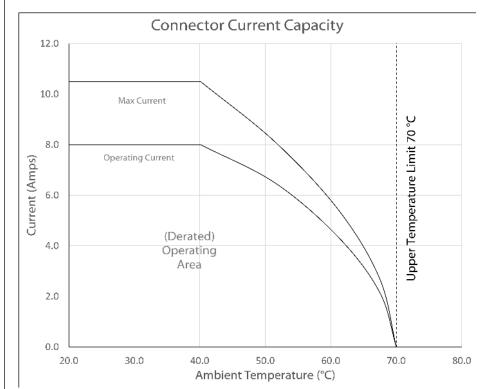
3

# Ratings

Operating Voltage: 48 Vdc Max Current: 8 A

Operating Temperature Range -25 to 70°C, relative humidity of 85% or less

5



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:	Prepared: MP Date: April 13 Digitally Signed by MP Date: 2023,03.13	Notes:					
Α	09/02/2009	Intiial release	10:45:03 -07'00'	RoHS and REACH compliant		TENSILITY			
A1	11/09/2012	Added test data	Verified: JD   Digitally signed by JD   Date: 2023.03.13   14.5443 -0700'	Function test: no open, no short circuit, no intermittent	tel 1.541.323.3228 800 877.670.7118				
A2	05/24/2018	Changed material	Dimensions are in millimeters.			fax 1.541.323.4202 web tensility.com			
		_		Description:	Size:	Part number:			
			Tolerances: X: ± 0.5 mm	Connector, dc jack, 5.5x2.5xL17.4 mm, molding	Α	А 50-00027			
			X.X: ± 0.3 mm X.XX: ± 0.05 mm	style	Scale:	2:1	Sheet 2 of 2		

3

2