Materials

- 1. Insulator: Nylon PA46, black
- 2. Center terminal: C5191 brass, 2 µm nickel plated
- 3. Shell: C2700 brass, 2 µm nickel plated
- 4. Ground terminal: C2680 brass, 2 µm nickel plated

Electrical Requirements

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

Mechanical Requirements

Insertion force: 0.3-3 kgf Withdrawal force: 0.3-3 kgf

Life cycle: 5000 mating cycles while maintaining 0.3 kgf min. insertion force, 0.2 kgf min. withdrawal force and less than $100 \text{ m}\Omega$ contact resistance.

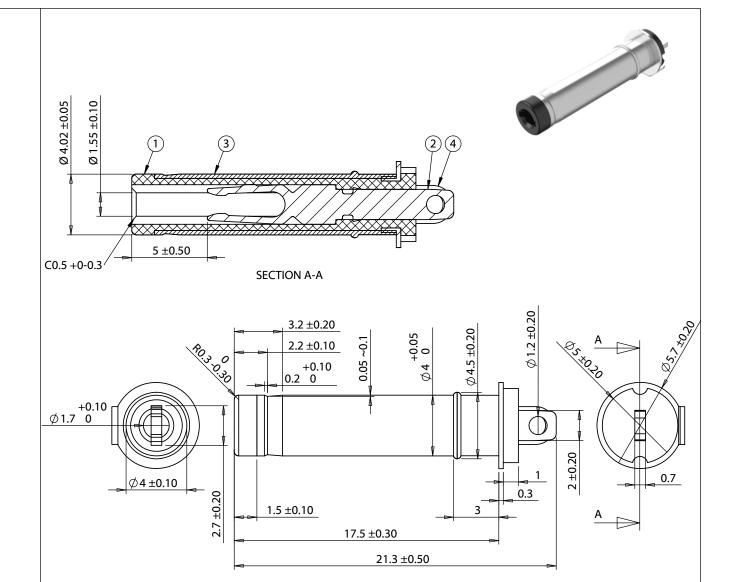
Environmental Requirements Heat test: 70 °C, relative humidity 70-85% for 96 hours

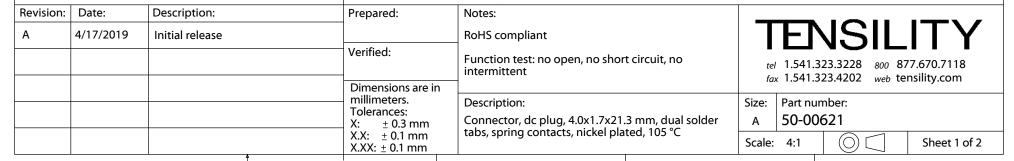
while maintaining contact resistance: $100 \text{ m}\Omega$ or less, insulation resistance: 50 M Ω @ 500 Vdc, without looseness or deformation

Humidity test: 40 °C, relative humidity 90-100% for 96 hours while maintaining dielectric strength: 1 min @ 500 Vac. insulation resistance: 50 M Ω @ 500 Vdc, contact resistance:

 $100\ m\Omega$ or less

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



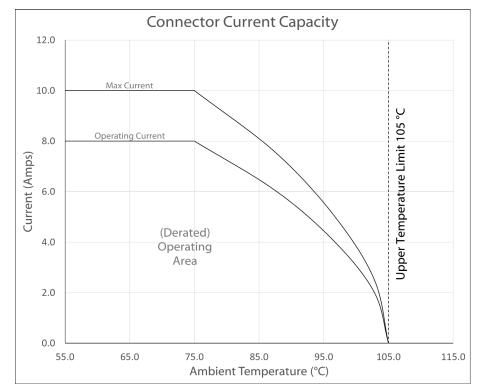


3 2 5

Ratings

Maximum Operating Voltage: 48 Vdc Maximum Operating Current: 8.0 A

Operating Temperature Range -25° to 105 °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:	Prepared:	Notes:				
Α	4/17/2019	Initial release		RoHS compliant		ENSILITY		
			Dimensions are in millimeters.	Function test: no open, no short circuit, no intermittent		tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com		
				Description:	Size: Part number:			
				Connector, dc plug, 4.0x1.7x21.3 mm, dual solder tabs, spring contacts, nickel plated, 105 °C	A 50-00621			
					Scale:	: 4:1 Sheet 2 of 2		

5