Materials

- 1. Insulator, PBT + 15% glass fiber, white
- 2. Shell, C2700 brass, 2 µm nickel plated
- 3. Spring contact, C5191 phosphor bronze, 2 μm nickel plated

Electrical requirements

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

Mechanical requirements

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

Durability: 5000 mating cycles while maintaining; 0.3-2 kgf insertion force, 0.2-1.5 kgf withdrawal force and a less than 100 m Ω contact resistance.

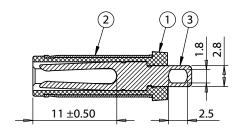
Environmental requirements

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 M Ω @ 500 Vdc minimum and a contact resistance of 100 m Ω or less.

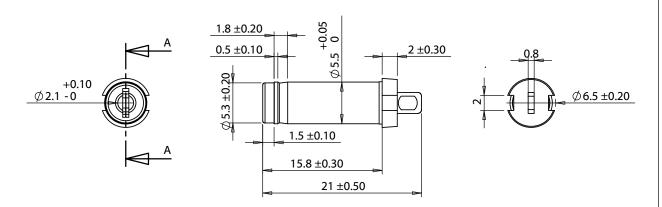
Dry test: 70 °C, RH 70-85% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain insulation resistance of 50 M Ω @ 500 Vdc minimum and a contact resistance of 100 m Ω or less.

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 $80 \text{ m}\Omega$.





SECTION A-A SCALE 2 : 1



Revision:	Date:	Description:	Prepared:	Notes:					_
Α	11/07/2012	Initial release		RoHS compliant Function test: no open, no short circuit, no intermittent				NSILIT'	Y
			Verified:			tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com			
			Dimensions are in millimeters. Tolerances:	Description: Connector, dc plug, 5.5x2.1xL21mm, brass, nickel-plated, molding type, white insulators		Size: Part number:			
			X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm			A 50-00313 Scale: 5:1 Sheet 1 of 2			of 2
		<u></u>			_	•			

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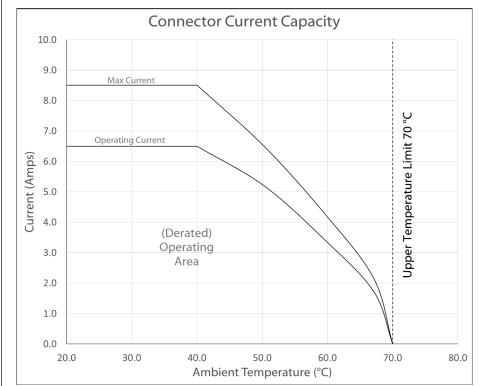
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2

Ratings

Maximum Operating Voltage: 48 Vdc Maximum Operating Current: 6.5 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:	Prepared:	Notes:		
Α	11/07/2012	Initial release		RoHS compliant Function test: no open, no short circuit, no intermittent		ENSILITY
			Verified: Dimensions are in millimeters. Tolerances: X: ± 0.3 mm			tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com
				Description: Connector, dc plug, 5.5x2.1xL21mm, brass, nickel-	Size: Part number: A 50-00313	
			X.X: ± 0.1 mm X.XX: ± 0.05 mm	plated, molding type, white insulators		5:1 Sheet 2 of 2

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