Materials

- 1. Insulator: PBT + 15% GF, black
- 2. Shell: C3604 brass, 2 µm nickel plated
- 3. Pin: C2680 brass, 2 µm nickel plated
- 4 Nut: C3604 brass, 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

Life cycle: 5000 mating cycles while maintaining 0.3-2 kgf min. insertion force, 0.2-1.5 kgf min. withdrawal force and less than $100 \text{ m}\Omega$ contact resistance.

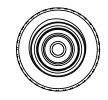
Environmental Requirements

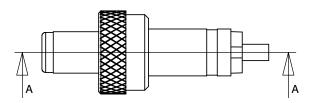
Heat test: 70 °C, relative humidity 70-85% for 96 hours without deformation while maintaining contact resitance after test 100 mohms or less, and insulation resistance 50 Mohms/500 Vdc minimum

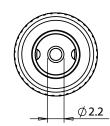
Humidity test: 40 °C, relative humidity 90-100% for 96 hours without deformation while maintaining dielectric strength 500 Vac/1 minute, insulation resistance 50 Mohms/500 Vdc minimum, and contact resistance 100 mohms or less

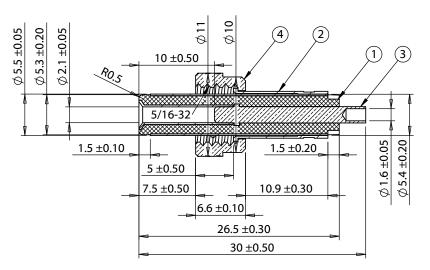
Salt spray test: 35 ± 2 °C, relative humidity 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 m Ω .











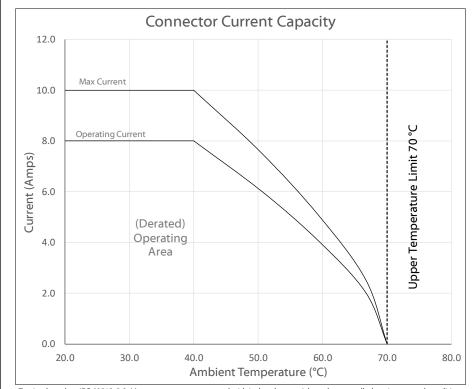
SECTION A-A

Revision:	Date:	Description:	Prepared:	Notes:			
Α	5/19/2009	Initial release		RoHS compliant		ENSILITY	
A1	11/11/2015	Modified insulator material	Verified:	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		
A2	11/20/2017	Updated specifications	Dimensions are in				
			millimeters. Tolerances: X: ± 0.5 mm	Description: Connector, dc plug, 5.5x2.1xBL7.5xL30 locking style, brass nickel plated, threaded nut 5/16-32	Size:	Part number: 50-00010	
			X.X: ± 0.3 mm X.XX: ± 0.05 mm	brass nickei piated, threaded nut 5/16-32	Scale:	2:1 Sheet 1 of 2	

5 3 2

Ratings Maximum Operating Voltage: 48 V Maximum Operating Current: 8.0 A

Operating Temperature Range -25~70 °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	05/19/2009	Initial release		RoHS compliant		ENSILITY		
A1	11/11/2015	Modified insulator material	Verified:	Function test: no open, no short circuit, no intermittent	tel 1.541.323.3228 800 877.670.7118			
A2	11/20/2017	Updated specifications	Dimensions are in			fax 1.541.323.4202 web tensility.com		
			millimeters. Tolerances:	Description:	Size:	Part number:		
			X: ± 0.3 mm X.X: ± 0.1 mm X.XX: ± 0.05 mm	Connector, dc plug, 5.5x2.1xBL7.5xL30 locking style, brass nickel plated, threaded nut 5/16-32	Α	50-00010		
					Scale:	2:1 Sheet 2 of 2		

5