

Materials

1. Insulator: LCP + 30% glass fiber, UL 94 V-0, gray
2. Pin: C3604 brass, 1 μ m nickel plated minimum
3. Shell: C3604 brass, 1 μ m nickel plated minimum
4. Terminal: C5191 phosphor bronze, 1 μ m nickel plated minimum

Electrical Requirements

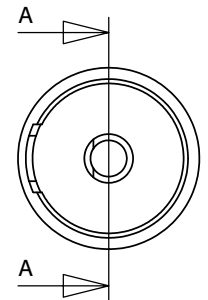
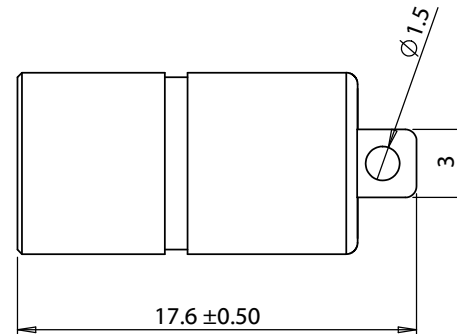
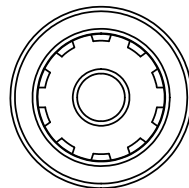
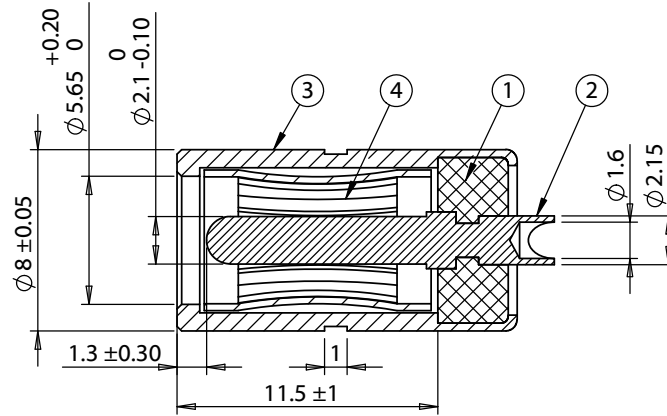
Dielectric strength: 1 min @ 500 Vac
Insulation resistance: 100 M Ω @ 500 Vdc
Contact resistance: 30 m Ω or less

Mechanical Requirements

Insertion force: 0.3-3 kgf
Withdrawal force: 0.3-3 kgf
Life cycle: 5000 mating cycles while maintaining 0.3-2.0 kgf min. insertion force, 0.2-1.5 kgf min. withdrawal force and less than 100 m Ω contact resistance.

Environmental Requirements

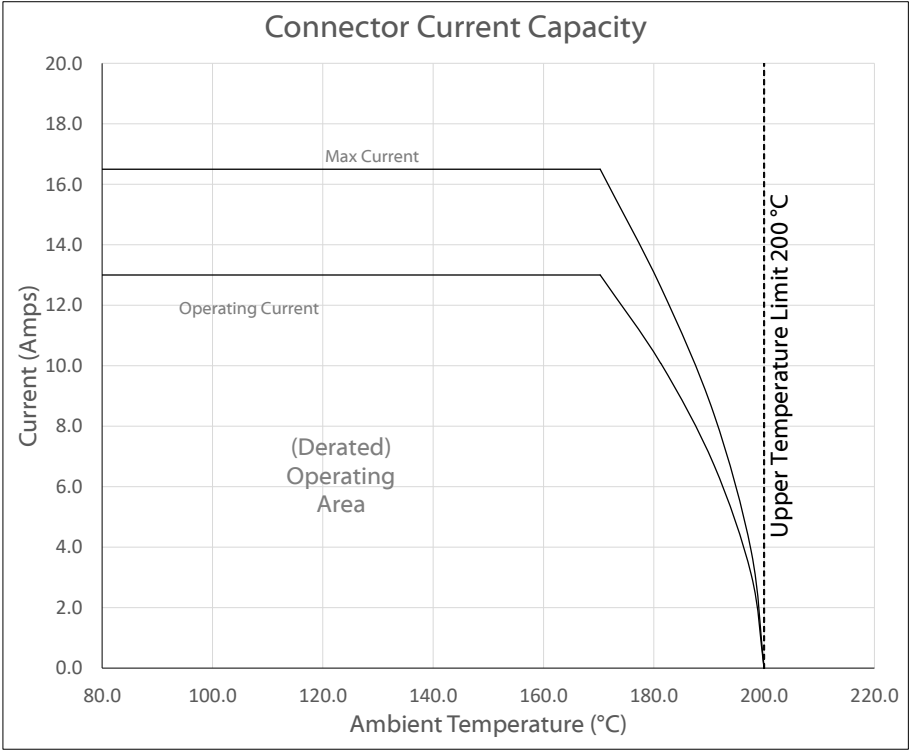
Heat test: 70 °C, relative humidity 70-85% for 96 hours while maintaining contact resistance: 100 m Ω maximum, insulation resistance: 50 M Ω @ 500 Vac, without looseness or deformation
Humidity test: 40 °C, relative humidity 90-100% for 96 hours while maintaining dielectric strength: 1 min. @ 500 Vac, insulation resistance: 50 M Ω @ 500 Vdc, contact resistance: 100 m Ω maximum
Salt spray test: 35 \pm 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 .



Revision:	Date:	Description:	Prepared:	Notes:	<h1>TENSILITY</h1> <p>tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com</p>		
A	6/23/2023	Initial release	Verified:	RoHS compliant Function test: no open, no short circuit, no intermittent			
			Dimensions are in millimeters. Tolerances: X: \pm 0.3 mm X.X: \pm 0.1 mm X.XX: \pm 0.05 mm	Description: Connector, dc jack, 5.5x2.1x17.6 mm, molding style, spring contacts, nickel plated, 200° C	Size: A	Part number: 50-01012	
					Scale: 3:1		Sheet 1 of 2

Ratings
Maximum Operating Voltage: 48 Vdc
Maximum Operating Current: 13 A

Operating Temperature Range
-50° to 200 °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, based on a 30°C temperature rise. Test 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.

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A	6/23/2023	Initial release	Verified:	RoHS compliant			
			Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm	Function test: no open, no short circuit, no intermittent	Size:	Part number:	
				Description:	A	50-01012	
				Connector, dc jack, 5.5x2.1x17.6 mm, molding style, spring contacts, nickel plated, 200° C	Scale: 3:1		Sheet 2 of 2