# Ratings

Operating temperature range: -10° to 60° C Flammability: UL 94 V-0

## Materials

- 1. Insulator: PBT, black
- 2. Pin: copper alloy, nickel plated 3. Shell: brass, nickel plated
- 4. Spring contact: stainless steel, nickel plated
- 6. Solder tab: brass, nickel plated
- 7. Washer p/n 56-00001: cold rolled steel, nickel plated
- 8. Nut p/n 56-00000: brass, nickel plated

# **Electrical Requirements**

Dielectric strength: 1 min @ 500 Vac Insulation resistance: 100 MΩ @ 500 Vdc Contact resistance:  $50 \text{ m}\Omega$  or less

## **Mechanical Requirements**

Insertion force: 0.3-3 kgf Withdrawal force: 0.2-3 kgf

Terminal strength: a static load of 150 gf shall be applied to the terminal for 15 seconds in any direction.

Life cycle: 5000 mating cycles while maintaining less than 100 m $\Omega$ contact resistance,  $50M\Omega$  insulation resistance minimum, and dielectric strength of 500 Vac for 1 minute withstand voltage.

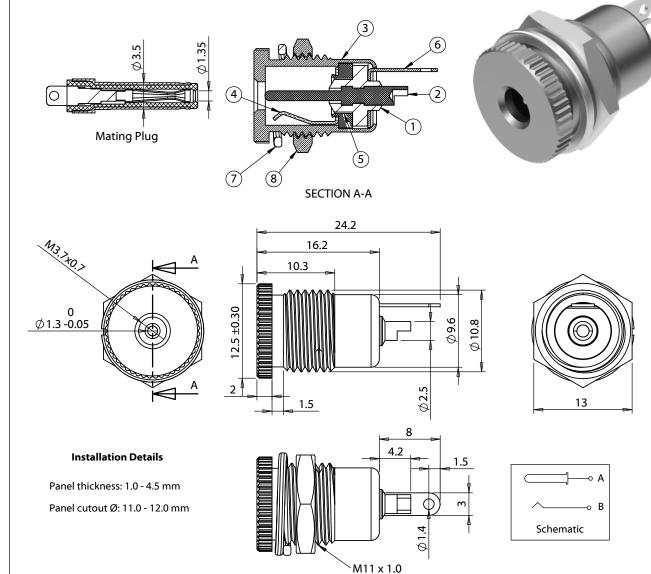
## **Soldering**

Solderability: 75% minimum coverage when terminals dipped 2mm in 245  $\pm$ 5 °C solder bath for 3  $\pm$ 0.5 seconds

Solder bath durability: no deformation when immersed in 255  $\pm$ 5 °C bath for 5 seconds or less

Solder iron durability: no deformation when exposed to 350  $\pm$ 10 °C for 3 ±0.5 seconds

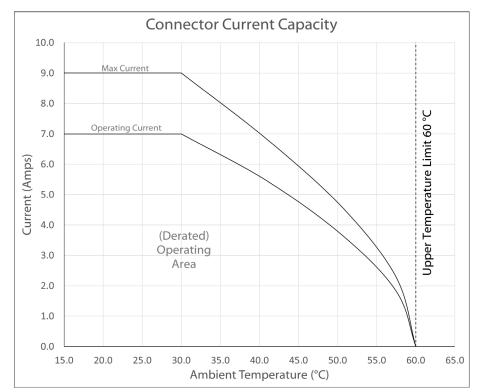
**Environmental Requirements** Cold test: -25 ±3 °C for 48 hours without deformation Heat test: 70 ±2 °C, for 48 hours without deformation Humidity test:  $40 \pm 2$  °C, relative humidity 90-95% for 48 hours without deformation



Revision:	Date:	Description:	Prepared:	Notes:				
Α	8/05/2016	Initial release		RoHS compliant		Eľ	NSIL	ITY
A1	1/03/2017	Updated materials list	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	8/25/2017	Updated notes	Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm					
				Description: Connector, dc jack, 3.5x1.35xL24.2 mm, panel mount, threaded, nut and washer, brass, nickel	Size: A Scale:	. 54 00061		

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Ratings Maximum Operating Voltage: 48 Vdc Maximum Operating Current: 7.0 A



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.

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A2	8/25/2017	Updated notes	Dimensions are in			fax 1.541.323.4202 web tensility.com		
			millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm	Description:	Size:	Part number: 54-00061		
				Connector, dc jack, 3.5x1.35xL24.2 mm, panel mount, threaded, nut and washer, brass, nickel	Α			
					Scale:	2:1 Sheet 2 of 2		