

Ratings:

Voltage: 48 V
 Current: 20 A, (not mated under load)
 Connector current ratings based on individual contact temperature rise (<30 °C)

Materials

- ① Insulator: PA10T + 30% GF, UL94 V-0, black
- ② Center pin: H59-B2 brass, Gold flashing
- ③ Outer shell: C5210 Phosphor bronze, Nickel plated
- ④ Face plate: SUS 304 Stainless steel

Electrical Requirements

Dielectric strength: 1 min @ 500 Vac
 Insulation resistance: 100 MΩ min @500VDC
 Contact resistance: 50 mΩ or less

Mechanical Requirements

Insertion force: 0.3 ~ 3 kgf
 Withdrawal force: 0.3 ~ 3 kgf
 Life cycle: 5000 mating cycles

Environmental Requirements

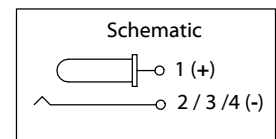
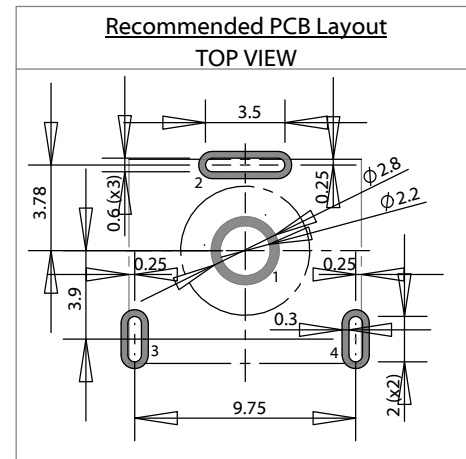
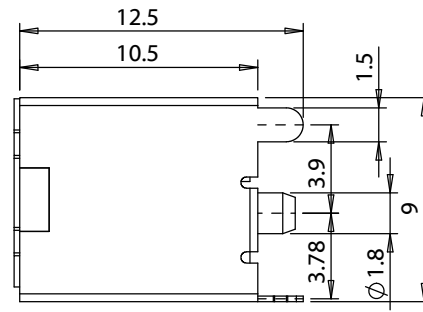
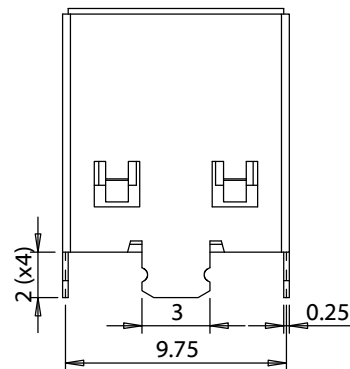
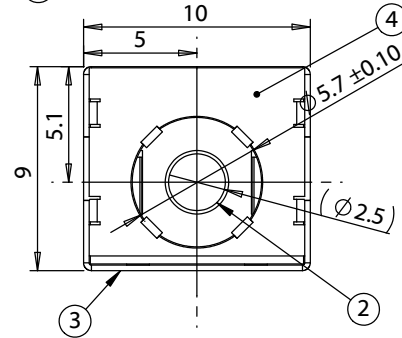
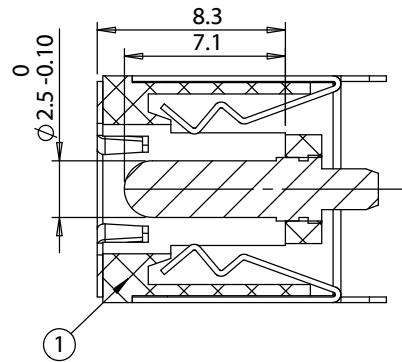
Cold test: -25 ± 3 °C for 48 hours without deformation
 Heat test: 70 °C, relative humidity 70 - 85 % for 96 hours while maintaining contact resistance: 100 mΩ or less, insulation resistance: 50 MΩ @ 500 Vdc, without looseness or deformation
 Humidity test: 30 °C, relative humidity 60 % for 168 hours without deformation
 Salt spray test: 35 °C, relative humidity 90 - 95 %, 5 % NaCl mist for 48 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 mΩ.

Operating Temperature Range

-40°C ~ 200 °C, relative humidity of 85 % or less

Mates with connector

50-01041



Revision:	Date:	Description:	Prepared:	Notes: RoHS compliant Halogen free	<h1>TENSILITY</h1> <p>tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com</p>
A	10/08/2025	Initial release	Verified:		
			Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.2 mm	Description: Connector, dc jack, 5.5x2.5xL12.5 mm, thru hole, gold plated	Size: A Part number: 54-00430 Scale: 3:1
					Sheet 1 of 1

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