

Ratings

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

Materials

- ① Insulator: PBT + 15% GF, UL94 V-0, black
- ② Shell: C3604 Brass, Nickel plated
- ③ Pin: C18400 copper chromium, Gold flashing

Electrical Requirements

Dielectric strength: 1 min @ 550 Vac
 Insulation resistance: 100 MΩ @ 500 Vdc
 Contact resistance: 20 mΩ or less

Mechanical Requirements

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

Environmental Requirements

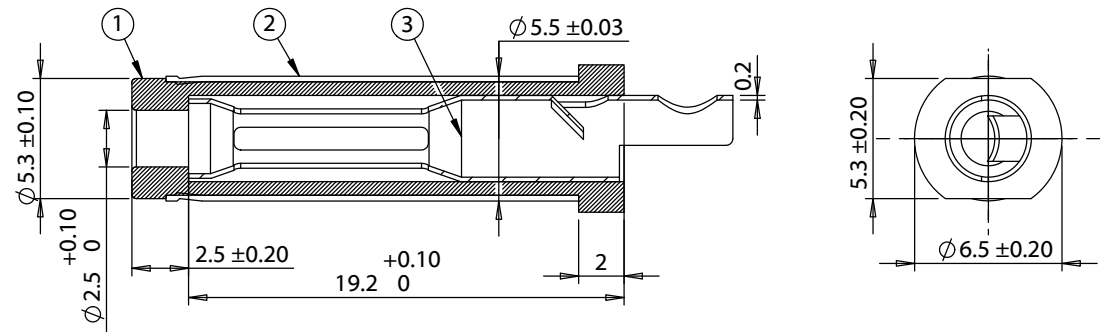
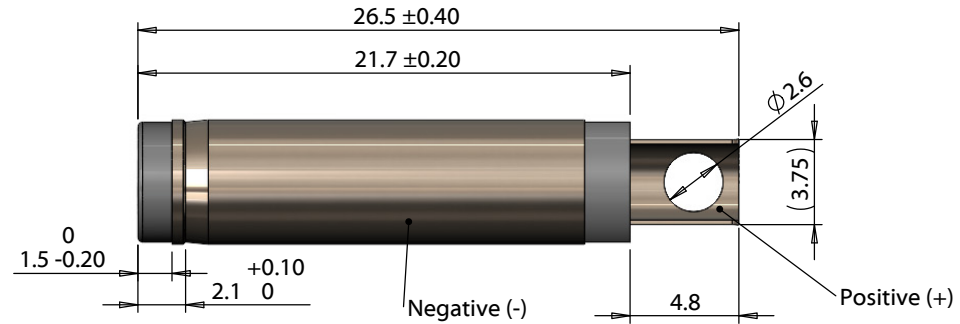
Cold test: -25 ± 3 °C for 48 hours without deformation
 Heat test: 70 °C, relative humidity 70 - 85% for 96 hours while maintaining contact resistance: 100 mΩ or less, insulation resistance: 50 MΩ @ 500 Vdc, without looseness or deformation
 Humidity test: 30 °C, relative humidity 60% for 168 hours without 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 ~ 150 °C, relative humidity of 85% or less

Mates with connector

54-00430



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	10/13/2025	Initial release	Verified:	RoHS compliant Halogen free	
			Dimensions are in millimeters. Tolerances: X: ± 0.50 mm X.X: ± 0.30 mm X.XX: ± 0.20 mm	Description: Connector, dc plug, 5.5x2.5xL26.5 mm, brass nickel plated, black, molding style	Size: A Part number: 50-01041
					Scale: 3:1 Sheet 1 of 1

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