

Materials

1. Insulator: Nylon (UL94V-0), black
2. Center terminal: C3604 brass, 1 µm min nickel plated
3. Shell: C3604 brass, 1 µm min nickel plated
4. Spring terminal: C5191 phosphor bronze, 1 µm min nickel plated

Electrical Requirements

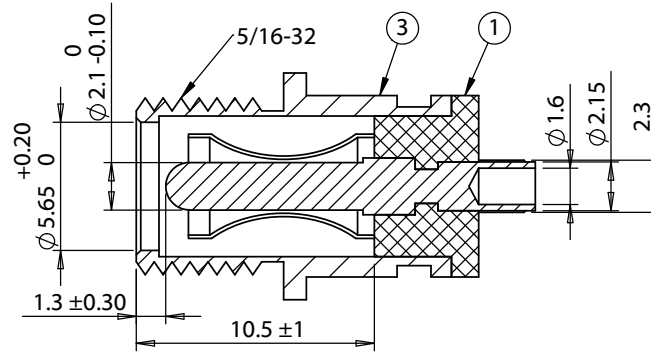
Dielectric strength: 1 min @ 500 Vac
 Insulation resistance: 100 MΩ @ 500 Vdc
 Contact resistance: 30 mΩ or less

Mechanical Requirements

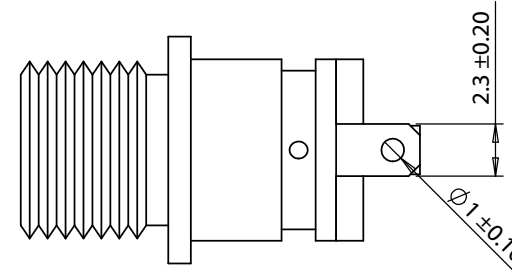
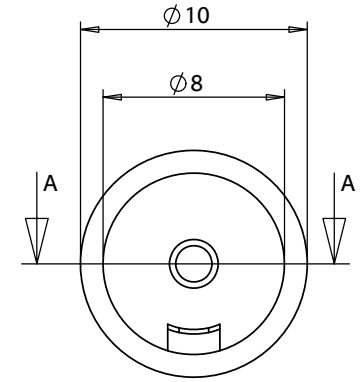
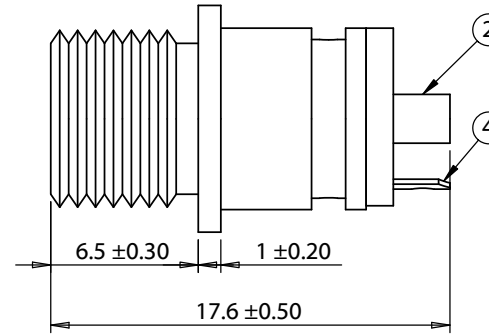
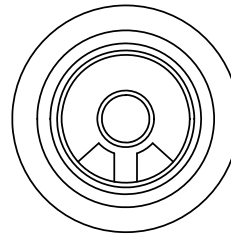
Insertion force: 0.3-3 kgf
 Withdrawal force: 0.3-3 kgf
 Life cycle: 5000 mating cycles while maintaining 0.3-2.0 kgf min. insertion force, 0.2-1.5 kgf min. withdrawal force and less than 100 mΩ contact resistance.

Environmental Requirements

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: 40 °C, relative humidity 90-100% for 96 hours while maintaining dielectric strength: 1 min @ 500 Vac, insulation resistance: 50 MΩ @ 500 Vdc, contact resistance: 100 mΩ or less, without deformation
 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 mΩ.



SECTION A-A



| Revision: | Date: | Description: |
|-----------|-----------|-----------------|
| A | 5/17/2019 | Initial release |
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| | | |
| | | |

Prepared: **GL**
Digitally signed by GL
 Date: 2019.05.29
 11:22:15 -07'00'

Verified: **AW**
Digitally signed by AW
 Date: 2019.05.29
 11:45:29 -07'00'

Dimensions are in millimeters.
 Tolerances:
 X: ± 0.3 mm
 X.X: ± 0.2 mm
 X.XX: ± 0.2 mm

Notes:
 RoHS compliant

Function test: no open, no short circuit, no intermittent

Description:
 Connector, dc jack, 5.5x2.1x17.6mm, brass, nickel plated, molding type, threaded 5/16-32

TENSILITY

tel 1.541.323.3228 800 877.670.7118
 fax 1.541.323.4202 web tensility.com

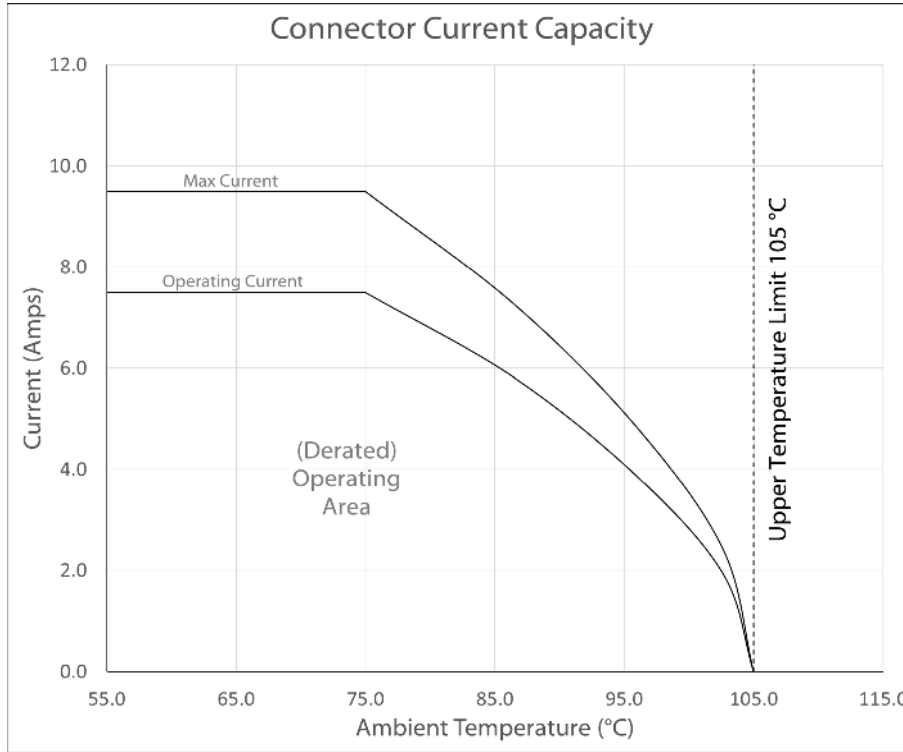
| | |
|------------|--------------|
| Size: | Part number: |
| A | 50-00616 |
| Scale: 3:1 | Sheet 1 of 2 |

Ratings

Maximum Operating Voltage: 48 Vdc
 Maximum Operating Current: 7.5 A

Operating Temperature Range

-25° to 105 °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: | <h1>TENSILITY</h1> <p>tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com</p> |
| A | 5/17/2019 | Initial release | GL <small>Digitally signed by GL Date: 2019.05.29 11:22:32 -07'00'</small> | RoHS compliant | |
| | | | Verified: AW <small>Digitally signed by AW Date: 2019.05.29 11:45:41 -07'00'</small> | Function test: no open, no short circuit, no intermittent | Size: Part number: A 50-00616 |
| | | | Dimensions are in millimeters. Tolerances: X: ± 0.3 mm X.X: ± 0.1 mm X.XX: ± 0.05 mm | Description: Connector, dc jack, 5.5x2.1x17.6mm, brass, nickel plated, molding type, threaded 5/16-32 | |

