

Ratings

Voltage: 24 Vdc

Current: 7 A

Operating Temperature Range

-25° to 70° C, relative humidity of 85% or less

Materials

1. Insulator: PBT +15% GF, black
2. Center pin: C2680 brass, 2 µm nickel plated
3. Shell: C3604 brass, 2 µm nickel plated
4. Nut: C3604 brass, 2 µm 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

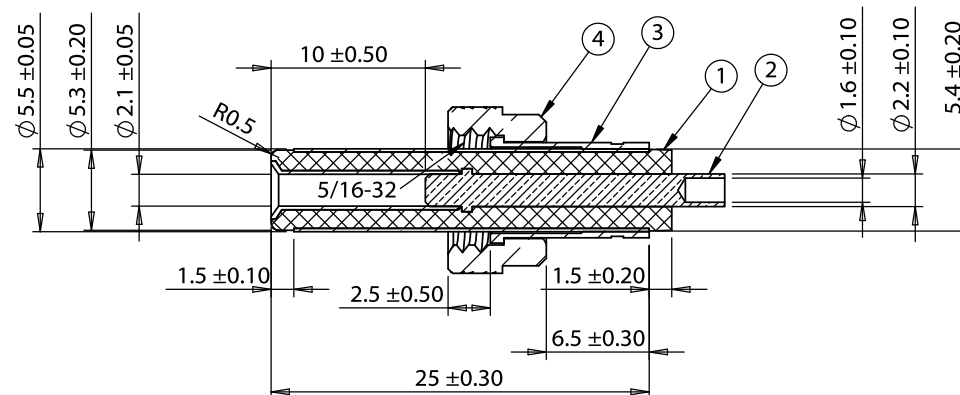
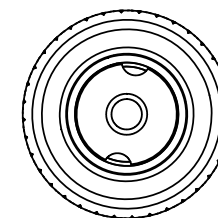
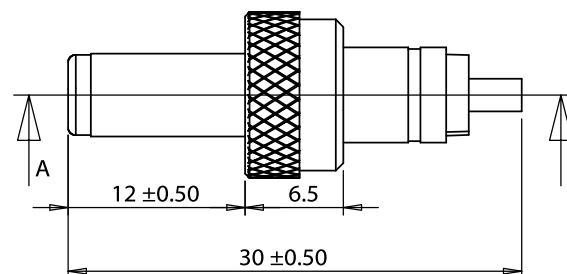
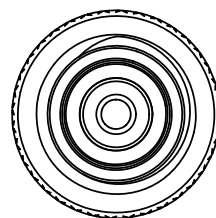
Life cycle: 5000 mating cycles while maintaining 0.3-2 kgf insertion force, 0.2-1.5 kgf withdrawal force and less than 100 mΩ contact resistance.

Environmental Requirements

Heat test: 70 °C, relative humidity 70-85% for 96 hours without deformation while maintaining contact resistance after test 100 mohms or less, and insulation resistance 50 Mohms/500 Vdc minimum

Humidity test: 40 °C, relative humidity 90-100% for 96 hours without deformation while maintaining dielectric strength 500 Vac/1 minute, insulation resistance 50 Mohms/500 Vdc minimum, and contact resistance 100 mohms or less

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:	Prepared:	Notes:	TENSILITY tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com		
A	6/30/2010	Initial release	AG	RoHS compliant			
A1	11/20/2017	Updated specifications	Verified:	Function test: no open, no short circuit, no intermittent	Size:	Part number:	
			PS	Description:	A	50-00103	
			Dimensions are in millimeters.	Connector, dc plug, 5.5x2.1xBL12xL30 locking style, brass nickel plated, threaded nut 5/16-32	Scale: 2:1		Sheet 1 of 1
			Tolerances:				
			X: ± 0.5 mm				
			X.X: ± 0.3 mm				
			X.XX: ± 0.05 mm				