

# MODEL 4100

## SERVICE INSTRUCTIONS

**Mercotac® connectors contain a small amount of liquid mercury and should be disposed of properly through recycling.** Mercotac Inc. offers a recycling service for this purpose. When shipping spent units to Mercotac Inc., insert products into a plastic bag and package items being returned for UPS Ground shipment. Please state on paperwork "For Recycling", and identify shipments with company name and Phone / FAX numbers. (Do not send through USPS.)



1. Mercotac® connectors can be used both horizontally and vertically. However the "UP" arrow on the body of the connector should not point below horizontal. The connectors are reversible so they need not be installed upside down. It is preferable to store units upright (arrow up). <Fig 1>

2. The connector can be held or mounted by the body or plastic bushing, but was not designed to carry mechanical loads. One end should be allowed to float attached only by the connecting wires. In horizontal applications mount the connector with the body rotating to reduce mechanical loads on the bearing and internal components. **Never rigid mount both ends of the connector. This will cause connector failure.** Limit mounting eccentricity to .005" (.13mm).

3. **Do not solder to the connector or bend tabs excessively as such misuse may cause connector failure and voids the warranty.**

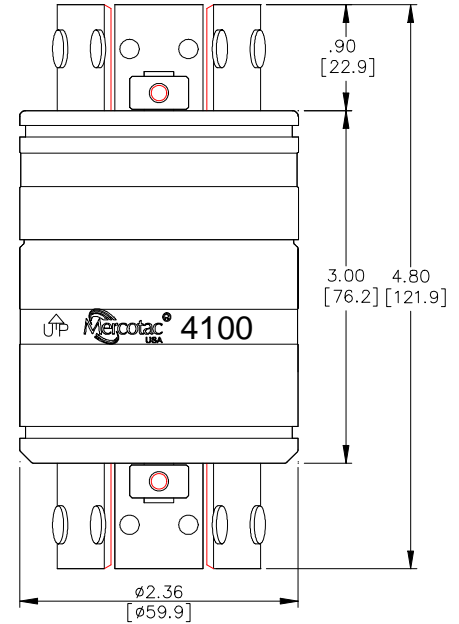
4. Use stranded wires of ample length and flexibility, such as welding cable, to avoid mechanical loads. Avoid taut wires that pull on the connector. The wires should have enough free play to allow the connector end to rotate approximately ¼ turn. Wires, which allow too much free play, could wrap around the connector.

5. Provide current protection (fuse) on wires attached to connector. Over-current conditions can cause failure of connector. **CAUTION:** The aluminum body may be electrically "hot" after failure. Disable power source before handling a suspected failed connector.

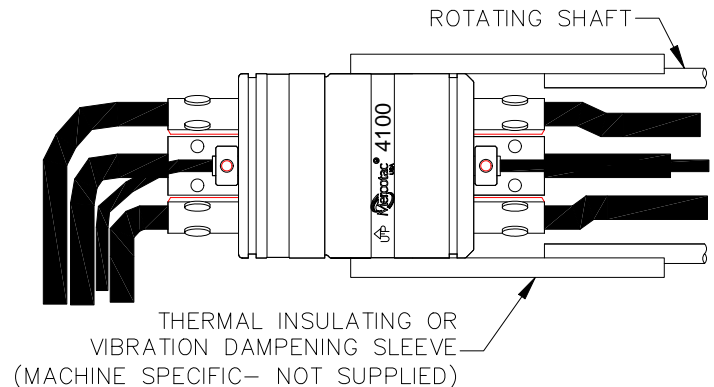
6. Vibration and mechanical shock will reduce service life or cause connector failure. Some installations may require a shock isolating mounting, such as rubber tubing. <Fig 2>

7. The connector contains plastic materials, which are sensitive to heat. Over-heating will cause reduced life or connector failure. Provide thermal insulation where necessary to prevent temperature of the unit from exceeding 160°F (70°C). <Fig 2>

8. **In food packaging applications:** Mercotac® connectors contain liquid mercury and other fluids. **Isolate connector from the food processing area by using a protective housing.** Short circuit failure at or in connection with a Mercotac® connector rarely but occasionally may result in leakage. The use of a protective housing may be advisable in these applications (Machine specific- not supplied by Mercotac, Inc.).



**Fig 1 Dimensions: Inches [mm]**



**Fig 2**

### TECHNICAL SPECIFICATIONS:

NUMBER OF CONDUCTORS:	4
VOLTAGE RANGE, AC/DC:	0-500 V
CURRENT RATING, CONTACTS:	3 @ 100 AMPS
CENTER GROUND WRE:	60 AMPS
MAXIMUM BODY TEMPERATURE:	70°C (160°F)
MINIMUM OPERATING TEMP.:	-29°C (-20°F)
MAXIMUM ROTATING SPEED:	100 RPM
TYPICAL ROTATING TORQUE:	2,500 gm•cm

**WARRANTY:** Units are guaranteed for one year from date of purchase against defective materials and workmanship. Replacement will be made except for defects caused by abnormal use or mishandling. All statements and technical information contained herein, or presented by the manufacturer or his representative are rendered in good faith. User must assume responsibility to determine suitability of the product for intended use. The manufacturer shall not be liable for any injury, loss or damage, direct or consequential arising out of the use, or attempt to use the product.