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. **Never rigid mount both ends of the connector. This will cause connector failure.** Limit mounting eccentricity to .005" (.13mm). <Fig 2>

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 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. Generally wires are strong enough to restrain the stationary end of the connector. A floating torque arm attached to the stationary bushing may be used if the wires are not adequate. <Fig 3>

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. The push on terminals (right angle & straight) supplied with the modular connector series use an improved double wall barrel design vs. typical single wall barrel. The extra strength in the barrel improves electrical conductivity and wire grip. Some crimp tools do not have enough leverage to securely crimp this terminal which could cause poor connections. The shape of the crimp die also affects the quality of the crimp, especially for the smaller wire sizes. A recommended crimp tool manufactured by Thomas & Betts is their model #WT112M. The right angle terminals can be configured on the 830 and 630 models as shown. <Fig 4>

7. 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 5>

8. 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 140°F (60°C). <Fig 6>

9. **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. <Fig 7>

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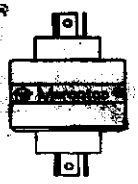


Fig 1

MODEL	BUSHING MOUNTING A	BUSHING MOUNTING B	BODY MOUNTING A	BODY MOUNTING B
230	.500(12.7)	.40(10.2)	.998(25.30)	.80(20.3)
330	.825(18.87)		1.248(31.70)	
430			1.575(40.00)	
530				
630	1.125(28.57)	.40(10.2)	1.772(45.01)	
430	1.250(31.75)	.80(20.3)		

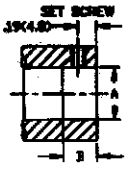


Fig 2 Mounting Dimensions

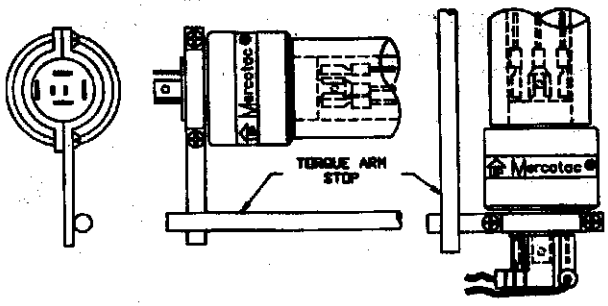


Fig 3 Floating Torque Arm Examples

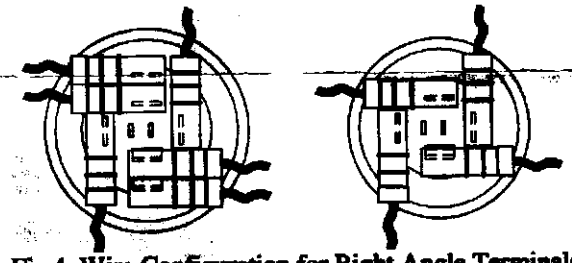


Fig 4 Wire Configuration for Right Angle Terminals

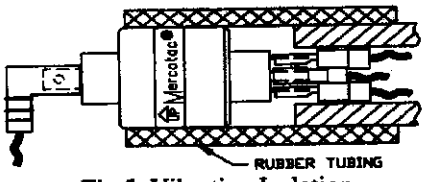


Fig 5 Vibration Isolation

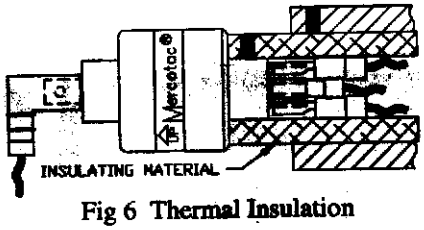


Fig 6 Thermal Insulation

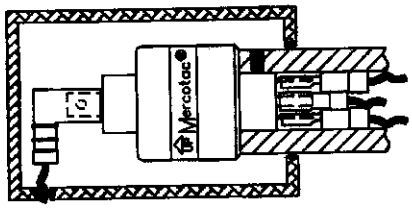
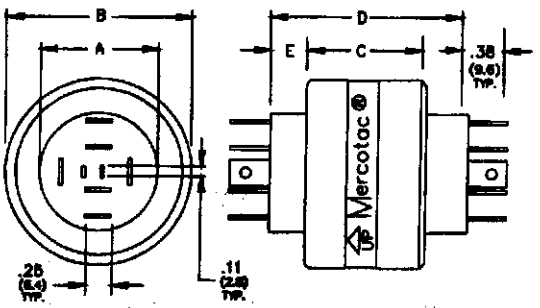


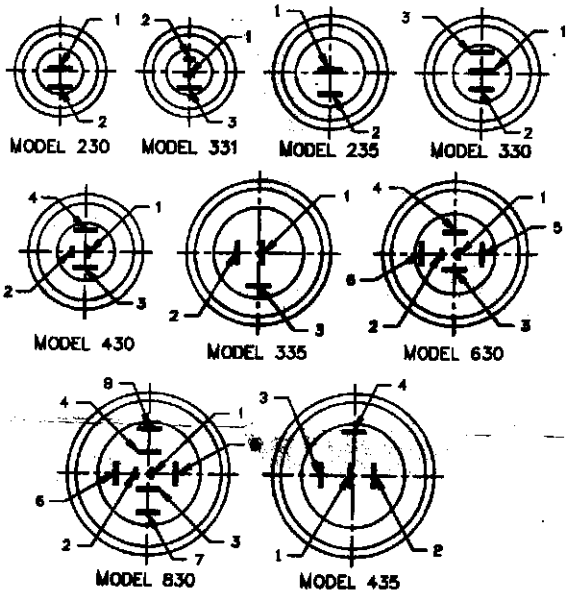
Fig 7 Protective Housing

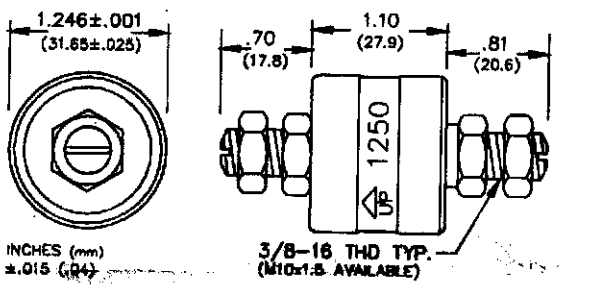
MODULAR SERIES



MODEL	A	B	C	D	E
230	.498(12.65)	.996(25.30)	1.10(27.9)	1.82(46.2)	.34(8.6)
331					
235	.746(18.95)	1.246(31.65)		2.67(67.8)	.78(19.8)
330	.623(15.82)			1.87(47.5)	.37(9.4)
430					
335	.982(24.94)	1.573(39.95)	1.14(29.0)	2.72(69.1)	.78(19.8)
630	.873(22.17)			1.84(46.7)	.34(8.6)
830	1.123(28.52)	1.770(44.96)			
435	1.248(31.70)			2.72(69.1)	.78(19.8)
±in(mm)	.002 (.05)		.01 (.25)	REF	.01(.25)

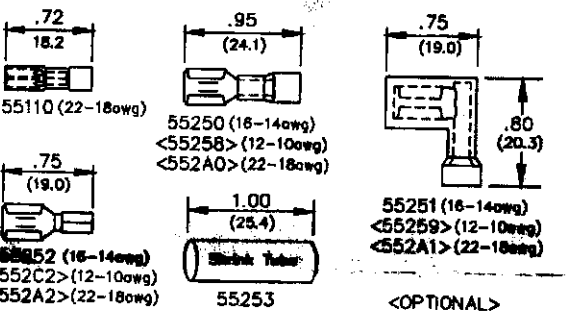
CONTACT TAB ORIENTATION





MODEL 1250

AVAILABLE DISCONNECTS



TECHNICAL SPECIFICATIONS

SPECIFICATIONS	MODEL NUMBER									
	1250	230	330	331	430	630	830	235	335	435
CONDUCTORS	1	2	3	3	4	6	8	2	3	4
VOLTAGE RANGE (V) AC/DC	0 - 250							0 - 500		
CURRENT RATING (A) SMALL TABS	2 SMALL TABS @ 4									
CURRENT RATING (A) LARGE TABS	250	2@30	3@30	1@30	2@30	4@30	6@30	2@30	3@30	4@30
MAXIMUM FREQUENCY RESPONSE (MHz)	200	100								
MERCURY CONTACT RESISTANCE	< 1 milliohm									
MAXIMUM ROTATING SPEED (RPM)	1200	1800	1200	1800	1200	300	200	1200	500	300
MAXIMUM BODY TEMPERATURE °C (°F)	60 (140)									
MINIMUM OPERATING TEMP. °C (°F)	-29 (-20)									
CIRCUIT SEPARATION (megOhm)	> 25							> 50		
TYP. ROTATIONAL TORQUE (NmX10-4)	250	200	300	200	400	700	1000	400	700	850

ACCESSORIES

SMALL TERM., INS.(18-22awg)	55110	STD (4)								
LARGE TERM., INS.(18-22awg)	552A0	OPTIONAL								
LARGE TERM., INS.(14-16awg)	55250	(2)	OPT.*	(1)	(2)	OPTIONAL*		(2)	(3)	(4)
LARGE TERM., INS.(10-12awg)	55258	OPTIONAL*								
LARGE TERM., UNINS.(18-22awg)	552A2	OPTIONAL								
LARGE TERM., UNINS.(14-16awg)	55252	OPT.	(3)	OPTIONAL		(4)	(6)	OPTIONAL		
LARGE TERM., UNINS.(10-12awg)	552C2	OPTIONAL								
SHRINK TUBE FOR UNINS. DISC.	55253	OPT.	(3)	OPTIONAL		(4)	(6)	OPTIONAL		
LG.ANGLE TERM.,INS.(18-22awg)	552A1	OPTIONAL								
LG.ANGLE TERM.,INS.(14-16awg)	55251	(2)	(3)	(1)	(2)	(4)	(6)	(2)	(3)	(4)
LG.ANGLE TERM.,INS.(10-12awg)	55259	OPTIONAL								
HEX NUT, 3/8-16 BRASS	12580	(4)								
RUBBER BOOT KIT FOR PROTECTION:	57125	57230	57430	57230	57430	57630	57830	57235	57335	57435

* Note: These optional terminals may require additional clearance and slight bending of tabs.