

# SPECIFICATIONS

## 1.0 MECHANICAL SPECIFICATIONS

- 1.1 DIMENSIONS IN PARENTHESIS [ ] DENOTE MILLIMETERS.
- 1.2 CASE MATERIAL: STAINLESS STEEL.
- 1.3 SEAL TYPE: ELASTOMER COATING
- 1.4 MASS: 9 OUNCES (25 GRAMS) MAX.
- 1.5 MOUNTING: BUSHING TYPE
- 1.6 MOUNTING HARDWARE: BEZEL NUT, LOCKING RING, LOCKWASHER AND HEX NUT INCLUDED.
- 1.7 OPERATING FORCE: 0 TO 2 LBS. (0 TO 8.9 NEWTONS) APPLIED AT POINT SHOWN. LIMITS BY MECHANICAL STOP MAXIMUM FORCE BEFORE DAMAGE: 25 LBS. (111 NEWTONS).
- 1.8 MAXIMUM WIRE SIZE TO BE INSERTED & SOLDERED IN PIN IS 25 AWG.
- 1.9 SET SCREW TORQUE: A. 2-56 = 1.2 IN-LB  
B. 4-40 = 4.0 IN-LB
- 1.10 KNOB ASSY SHIPPED LOOSE. KIT INCLUDES KNOB, SET SCREW, LOCKWASHER AND WRENCH.

## 2.0 ELECTRICAL SPECIFICATIONS

- 2.1 ABSOLUTE MAXIMUM EXCITATION: 5.0 VDC OR AC RMS ACROSS EACH ELEMENT (0.065 WATT/ELEMENT).
- 2.2 RESISTANCE OF EACH ELEMENT: 406 ±15% OHMS.
- 2.3 NULL OFFSET: ±0.17V MAX FOR ±5V APPLIED MAX.
- 2.4 NULL TEMP. COEFFICIENT: ±0.04% OF FULL SCALE OUTPUT PER DEGREE C° MAX.
- 2.5 NULL HYSTeresis: 0.7% OF FULL SCALE MAX AFTER 5 SECONDS FOLLOWING RELEASE OF FORCE.
- 2.6 SENSITIVITY: PROPORTIONAL TO SUPPLY VOLTAGE  
5.55 VOLTS/LB ±20% AT ±5.0 VDC VOLTAGE.
- 2.7 SENSITIVITY TEMP COEFFICIENT: 0.3% PER DEGREE CELSIUS MAXIMUM.
- 2.8 RESOLUTION: INFINITE.
- 2.9 LINEARITY: ±5% OF FULL SCALE OUTPUT. (INDEPENDENT LINEARITY)
- 2.10 OUTPUT IMPEDANCE: 200 OHMS NOMINAL.

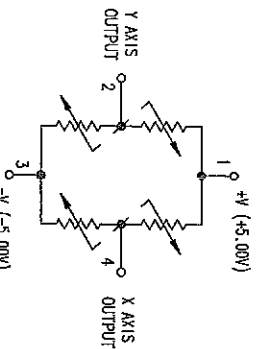
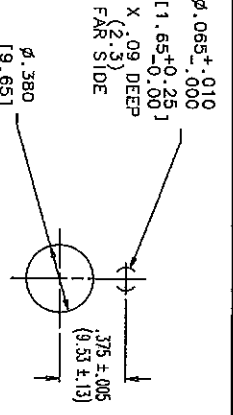
## 3.0 ENVIRONMENTAL SPECIFICATIONS

- 3.1 OPERATING TEMPERATURE RANGE  
FUNCTIONAL: -55°C TO +70°C  
IDEAL: 0°C TO +50°C
- 3.2 STORAGE TEMPERATURE RANGE: -55°C TO +85°C
- 3.3 SHOCK: +15 G, 11ms, HALF SINE
- 3.4 VIBRATION: 10 G PEAK, 10 TO 500 Hz
- 3.5 INSULATION RESISTANCE: 1 MEG OHM AT 50 VDC.
- 3.6 MTBF: 200,000 HOURS

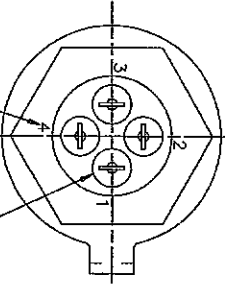
### IDENTIFICATION LABEL DETAIL

462-X

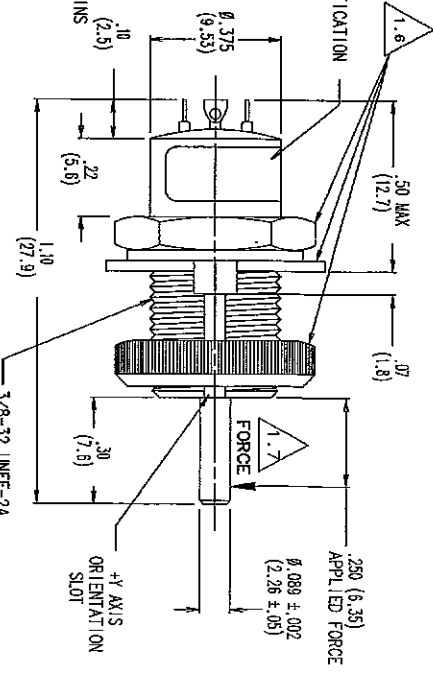
ZONE	REV	DESCRIPTION	DATE	APPROVED
L		REDRAWN PER ECO 9992	8-28-87	DAB



### CIRCUIT DIAGRAM



NUMBERS ARE FOR REFERENCE ONLY DO NOT APPEAR ON PART



### VENDOR ITEM CONTROL DRAWING

PROPRIETARY TO ULTRA ELECTRONICS - MEASUREMENT SYSTEMS INC UNAUTHORIZED COPYING IS NOT ALLOWED.		DATE: 6-14-83		DRAWN: F KUPIDLOWK1	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES REMOVE ALL BURRS AND BREAK SHARP EDGES .005 TO .010 SURFACE - 63 ANGLE: 42°		CHECKED:		ENGINEER:	
MATERIAL: 462-X		APPROVED:		SCALE: 4:1	
NEXT ASSY: 462		C ROUNDS: 1-31-84		SHEET: 1 OF 2	
APPLICATIONS:		SUBMINIATURE JOYSTICK FORCE OPERATED, MODEL 462		REV: L	
		MEASUREMENT SYSTEMS INC			

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