



## 1630

### SPECIFICATIONS

- Disposable Intra Uterine Pressure Sensor
- Disposable Blood Pressure Sensor
- AAMI Specifications
- Low Cost Disposable
- Dielectric Gel Barrier
- Fully Tested & Calibrated

### FEATURES

- Low Cost, Medical Applications
- Small Size and Reliable Performance
- Gel Isolation for Liquids
- Operates from 10°C to 40°C
- Compatible for Automated Assembly
- 2% Accuracy for Replacements
- 5.0  $\mu\text{V}/\text{V}/\text{mmHg}$  Sensitivity
- Customization for OEM Applications

### APPLICATIONS

- Intrauterine Monitoring
- Intensive Care Units
- Infusion Pumps
- Kidney Dialysis Machines
- Vacuum Assisted Birth
- Surgical Procedures

The 1630 is a fully piezoresistive silicon pressure sensor for use in intrauterine pressure monitoring. The sensor is designed to be used with automated assembly equipment and can be dropped directly into a customer's disposable intrauterine housing. The sensor is designed to meet the requirements as described in the Association for the Advancement of Medical Instrumentation (AAMI) specification for Blood Pressure Transducers.

The pressure sensor consists of a pressure sensing element mounted on a ceramic substrate. Thick film resistors on the ceramic substrate are laser trimmed for compensation and calibration. A plastic cap is attached to the ceramic substrate to provide an easy method of attachment to the customer's assembly and protection for the sensing element. A dielectric gel is placed over the sensor to provide fluid isolation. The products are shipped on a tape and reel.

The products are shipped on a tape and reel. Performance characteristics and packaging can be easily tailored on a special order basis to meet the requirements of specific customers.

## STANDARD RANGES

Range	mmHg
-50 to 300	•

## PERFORMANCE SPECIFICATIONS

Supply Voltage: 5.0 V<sub>DC</sub>

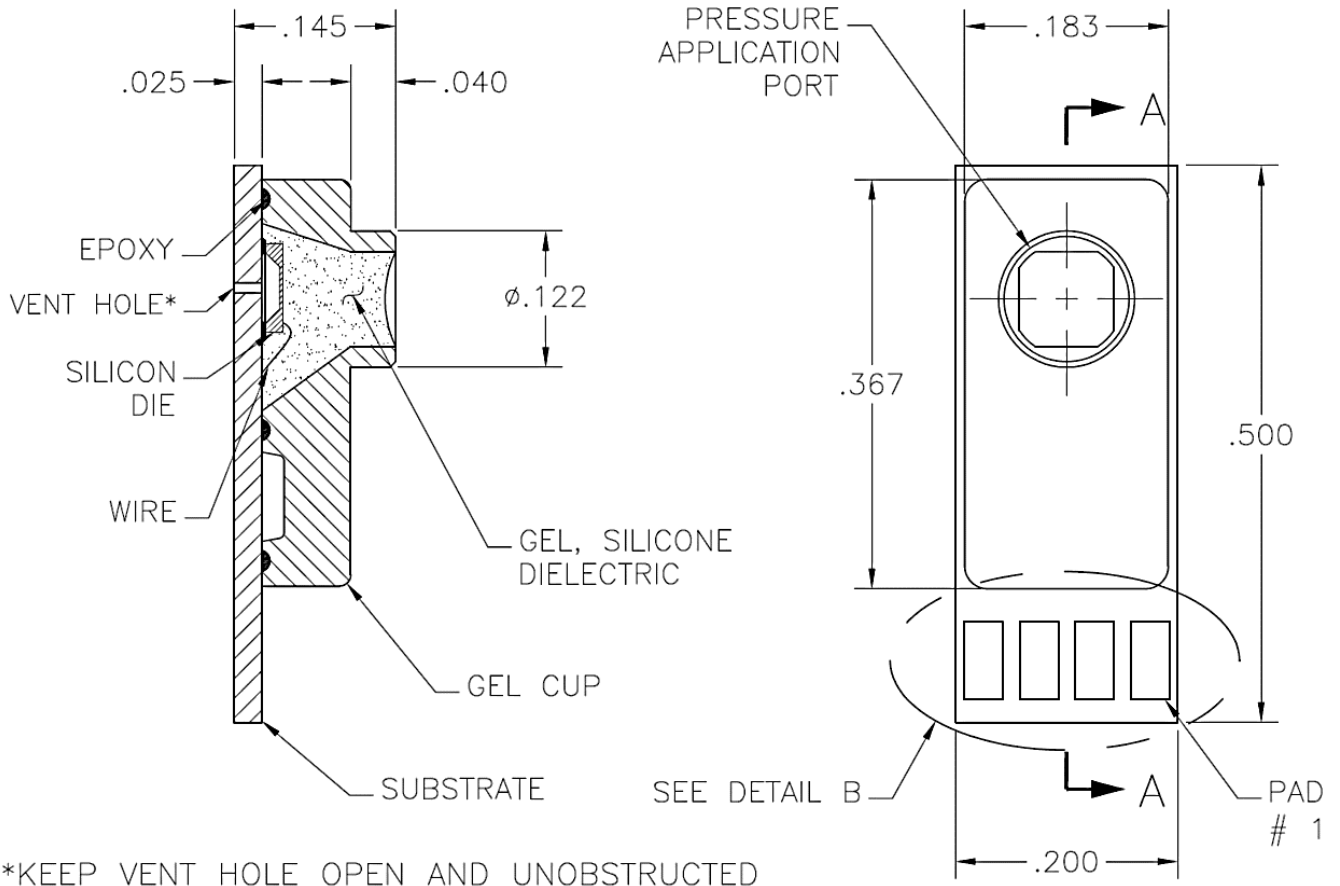
Ambient Temperature: 23°C (unless otherwise specified)

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Operating Pressure Range	-50		300	mmHg	
Over Pressure	-400		1200	mmHg	
Zero Pressure Offset	-20		20	mmHg	
Sensitivity	4.9	5.0	5.1	μV/V/mmHg	
Linearity and Hysteresis (0 to 300 mmHg)	-2.0		2.0	%Span	1
Input Impedance	1200		3200	Ω	
Output Impedance	270		330	Ω	
Supply Voltage	2	5	10	V <sub>DC</sub> or V <sub>AC</sub> rms	
Leakage Current (@ 120 V <sub>AC</sub> rms, 60Hz)			2	μA	
Warm-Up Time		5		Seconds	
Frequency Response		1200		Hz	
Offset Drift			2	mmHg	2
Thermal Span Shift	-0.1		0.1	%/°C	3
Thermal Offset Shift	-0.3		0.3	mmHg/°C	3
Phase Shift (@ 5KHz)			5	Degrees	
Sterilization (ETO)	3			Cycles	4
Operating Temperature	10		40	°C	
Storage Temperature	-25		+70	°C	
Operating Product Life			72	Hours	
Shelf Life	3			Years	
Humidity (External)	10-90% (non-condensing)				
Media Interface	Dielectric Gel				

## Notes

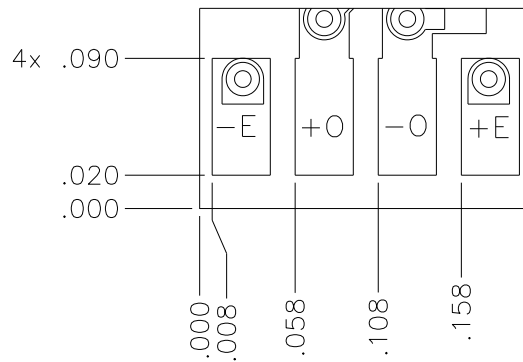
1. Best fit straight line.
2. Over an 8 hour time period after a 10 minute warm-up.
3. Over operating temperature range 10-40°C with respect to 23°C.
4. Sterilization performed by customer.
5. The transducer shall withstand a minimum of 1200 mmHg for 3 seconds.
6. Gel cup material: DOW CALIBRE 2081-15, color: SC030006. Dielectric Gel material: Dow Corning 527 with black pigment.

DIMENSIONS

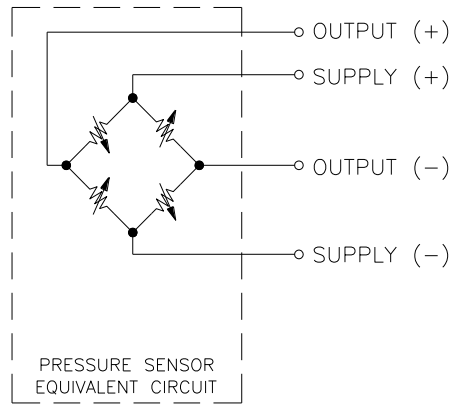


\*KEEP VENT HOLE OPEN AND UNOBSTRUCTED

STANDARD PAD CONFIGURATIONS

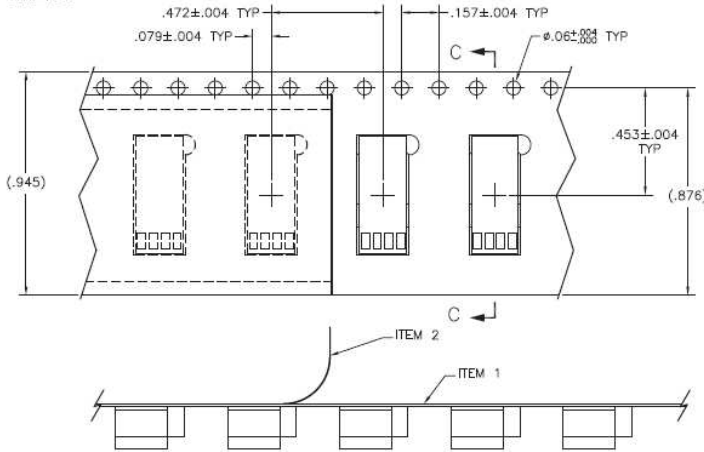


## CONNECTIONS

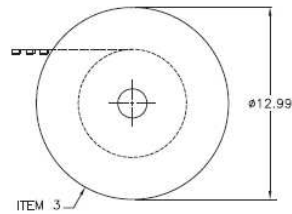


## SHIPPING INFORMATION

SHIPPING CONFIGURATION OPTION: TAPE AND REEL  
TAPE SPECIFICATIONS  
SCALE: 2:1



REEL SPECIFICATIONS  
SCALE: 1:8



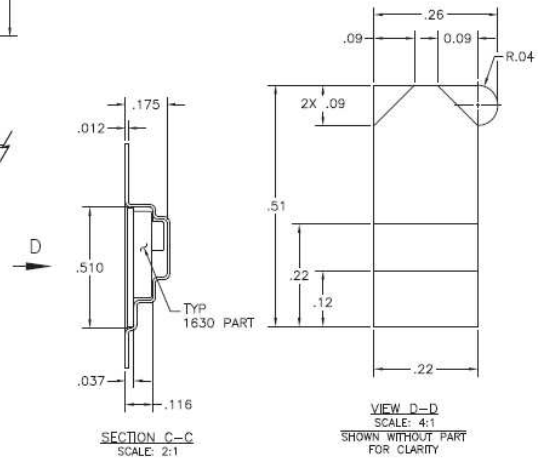
**TAPE AND REEL INFO**

**A) MATERIAL:**

- ITEM 1, PN IC-MH00068 CARRIER TAPE: POLYCARBONATE
- ITEM 2, PN IC-C20938-002 COVER TAPE: POLYCARBONATE, HEAT PRESSURE SEAL
- ITEM 3, PN IC-C20938-003 PACKAGING TRAY: PLASTIC

**B) TOTAL PEEL STRENGTH SHOULD BE 10 TO 130 GRAMS.**

- C) REFERENCE DOC: ANSI/EIA-481-C: 8mm THROUGH 200mm EMBOSSED CARRIER TAPING, 3mm AND 12mm PUNCHED CARRIER TAPING OF SURFACE MOUNT COMPONENTS FOR AUTOMATIC HANDLING.**



## ORDERING INFORMATION

1630 - T

## Shipping Configuration

T	Tape and Reel
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