

DPT 1620 Series
Disposable Blood Pressure Sensor
AAMI Compliant, BP-22 Standard
Fully Tested



DESCRIPTION

Advanced Sensors Disposable Blood Pressure Transducer (DPT) 620 series contains a piezo resistive sensor element that delivers a high level mV output in a low cost, small footprint, leadless castellation package that can be used in disposable medical applications. Each sensor is 100% calibrated and tested at the factory to ensure a high level of confidence and safety for medical OEMs. Device is designed and calibrated per the Association for the Advancement of Medical Instrumentation (AAMI BP-22 Standard) guidelines.

APPLICATIONS

- Intrauterine Monitoring controls
- Surgical Procedures
- Blood Pressure Measurement
- Kidney Dialysis
- Organ Preservation Perfusion

FEATURES

- Small size, Wide & Narrow Ports
- Medical Grade Polycarbonate Body
- Integrated Self Test Feature
- Dielectric Gel
- High Accuracy
- Fixed Sensitivity 5uV/V/mmHg

SPECIFICATIONS

	Symbol	Min	Typical	Max	Unit	Note
Performance Characteristic						
Supply Voltage		1	6.0	10	V	
Input Resistance		1200		3200	Ω	
Output Resistance		285		315	Ω	
Operating Pressure Range		-50		300	mmHg	
Zero Pressure Offset		-20	8	+20	mmHg	
Pressure Accuracy (-50 to 100mmHg)		-1.0		+1.0	mmHg	2
Pressure Accuracy (100 to 200mmHg)		-1.0		+1.0	%Reading	2
Pressure Accuracy (200 to 300mmHg)		-1.5		+1.5	%Reading	2
Sensitivity		4.95	5.00	5.05	$\mu\text{V/V/mmHg}$	
Operating Temperature Range,		10		40	$^{\circ}\text{C}$	
Thermal Shift, Offset		-0.3		0.3	mmHg/ $^{\circ}\text{C}$	3
Thermal Shift, Span		-0.1		0.1	%/ $^{\circ}\text{C}$	3
Calibration		97.5		102.5	mmHg	4
Output Symmetry		0.95		1.05	Ratio	5
Frequency Response		1200			Hz	
Offset Drift				1	mmHg	
Phase Shift (@5KHz)				5	Degrees	
Light Sensitivity @3K Foot Candles			1		mmHg	
Defibrillator Isolation		5			Discharges	6
Shelf Life				5	Years	
Weight				0.5	grms	
Wetted Materials		Ceramic, LCP, Epoxy, RTV, Silicon, Gold, Aluminum, Palladium Silver				
Media Compatibility		CDA, Non Ionic, Non Corrosive Gases				

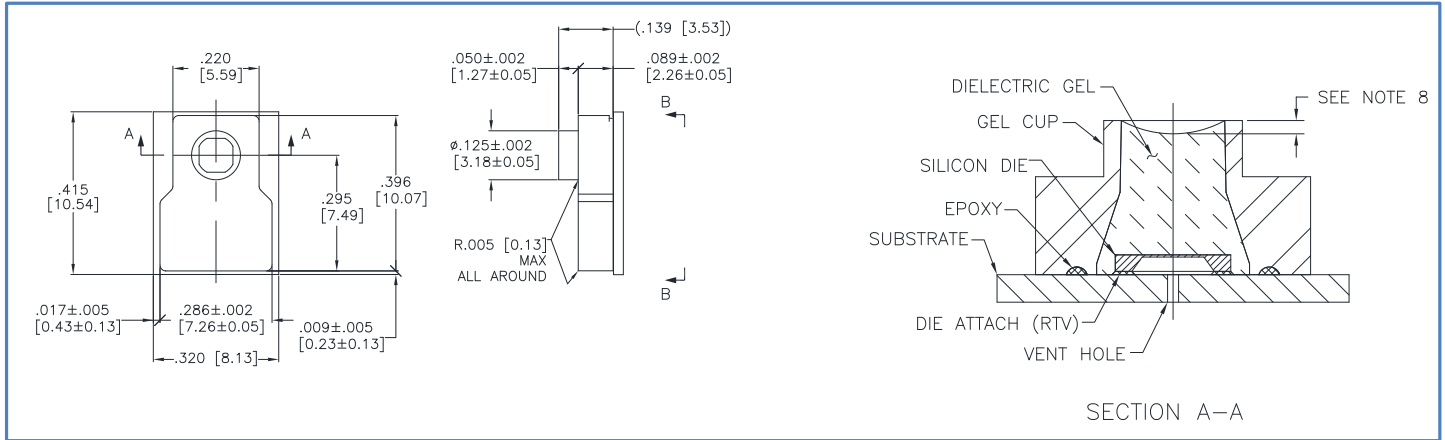
SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Absolute Maximum Conditions						9
Overpressure		125			psi	
Storage Temperature		-25		70	°C	
Operating Product Life		168			Hrs	
Dielectric Breakdown		10			K Volts	
Risk Current (120VAC rms, 60Hz)				2	uA	
ETO Sterilization		3x			Cycles	7
Media Compatibility		CDA, Non Ionic, Non Corrosive Gases				
Wetted Materials		Ceramic, LCP, Epoxy, RTV, Silicon, Gold, Aluminum, Palladium Silver				
Media Compatibility		CDA, Non Ionic, Non Corrosive Gases				

Reference Conditions: Vsupply: 6.00Vdc, Ta=23 °C.

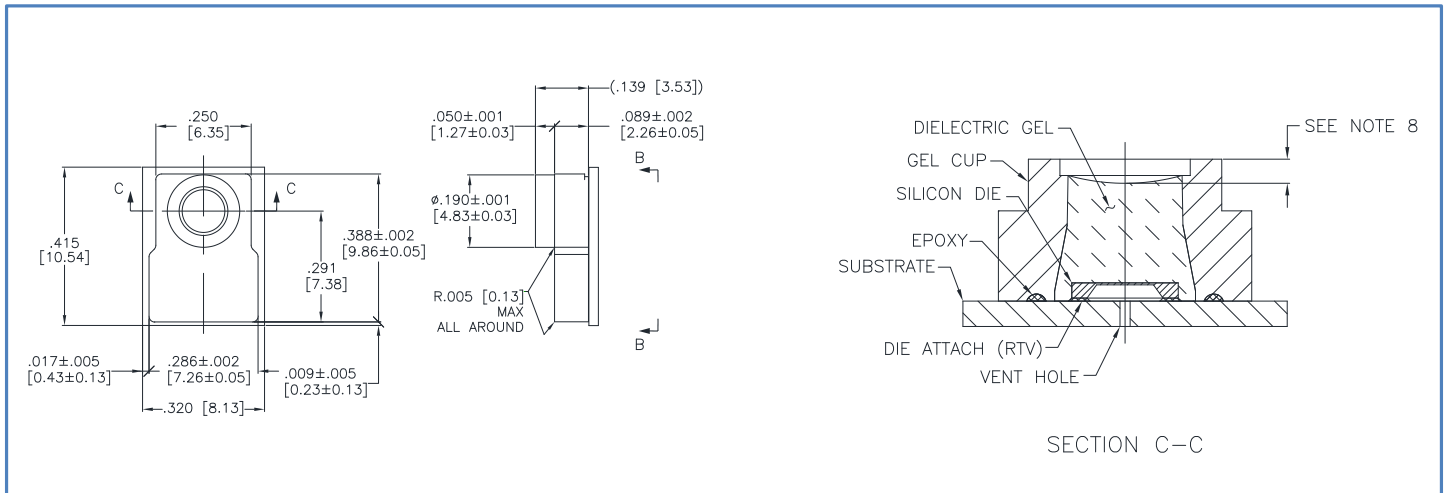
1. All specification at reference conditions unless otherwise noted. Output is ratio metric to supply voltage.
2. Best Fit Straight Line Non Linearity (Measured at 0, 50% and 100% FS).
3. Over operating temperature range with respect to reference temperature.
4. Output of sensor with no pressure applied and a 150KOhm resistor placed across Supply+ to Output + terminals
5. Defined as common mode symmetric between any output and supply terminal.
6. One discharger per minute.
7. Product compatible with ETO, Gamma and E Beam Sterilization.
8. Level of meniscus of gel shall be flush to 0.035" below surface.
9. Exceeding Absolute Maximum Specification may damage the device. Extended exposure beyond the operating conditions may affect device reliability.

MECHANICAL DIMENSIONS in [mm]

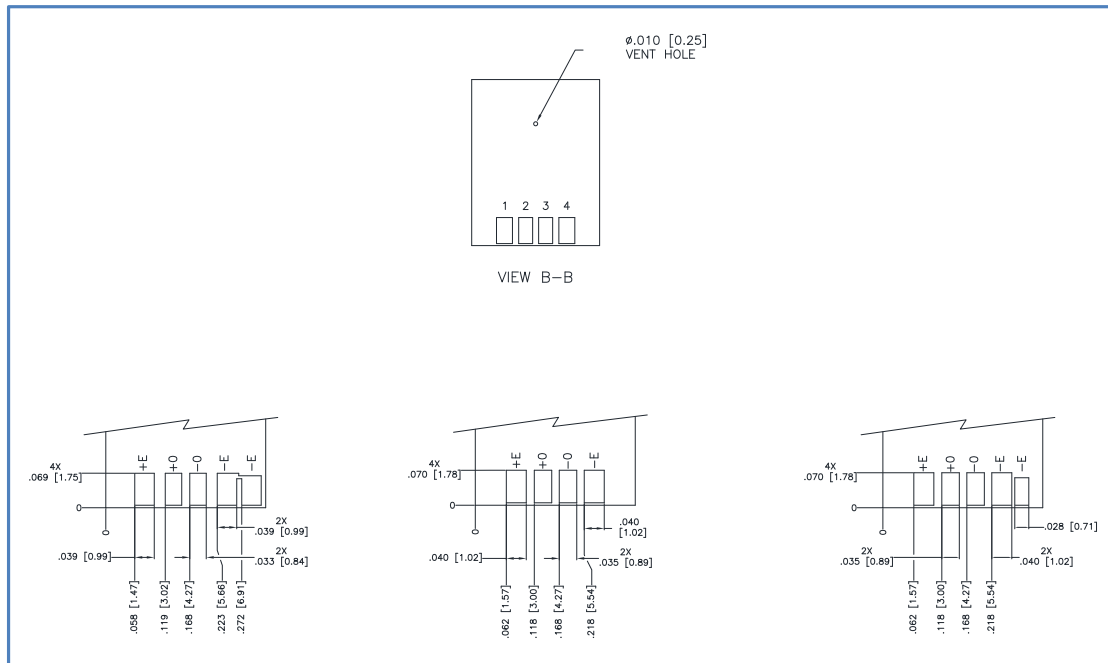
Narrow Gel Cup Configuration



Wide Gel Cup Configuration



Pad Solder Pad Configuration



Type A

Type C

Type B

PART NUMBERING FOR ORDERS

Series	Port Style	Pressure Range	Pressure Units	Pad Configuration Type	Pressure Type (Range Availability) [Package Availability]
DPT-1620	NC=Narrow Cup WC=Wide Cup	300	Hg=mmHg	A= Open Bridge, Full C= Closed Bridge B= Open Bridge, Split	G=Gauge (All) [NH,ST,WD]

Part Number Example: DPT-1620 NC 300HG CG

0-300mmHg Gage, Narrow Cup, Closed Bridge Pad Configuration

WARRANTY

Pressure sensors have a limited one-year warranty to the original purchaser. AVSensors will repair or replace, at its option, without charge those items it finds defective. This is the buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall AVSensors be liable for consequential, special, or indirect damages. This warranty does not apply to units that have been modified, misused, neglected or installed where the application exceeds published ratings. Specifications may change without notice. The information supplied is believed to be accurate and reliable as of this printing, however, we assume no responsibility for its use.