

DPT-4PM Series
Patient Monitoring Kits
AAMI BP22-1994 Compliant



DESCRIPTION

Advanced Sensors pressure monitoring kit with disposable pressure transducer is for use on patients requiring intravascular, intracranial, or intrauterine pressure monitoring. The medical pressure transducer is designed to provide clinicians the confidence and safety needed in patient monitoring. The product is extremely flexible for medical OEMs where housing luer fittings, flush devices, and stopcocks components can be varied dependent on the application. These medical sets are designed to simplify setup and give full visibility of the entire flow path. The foundational sensor is anchored by AVSensors DPT 620 medical MEMS element that is fully tested and individually calibrated. The DPT-4AM Series provide patient and clinicians the highest value in safety and performance.

APPLICATIONS

- Continuous arterial blood pressure monitoring
- Cardiac catheterization
- Central venous pressure monitoring
- Intrauterine Pressure Monitoring

FEATURES

- Full visibility of Flow Path
- Easy and Safe Priming
- Safe Priming and Debubbling
- Wide Variation of Options
- AAMI Compliant
- Single Hand operation of flush device
- Compact Size

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	$\mu\text{V}/\text{V}/\text{mmHg}$	
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	

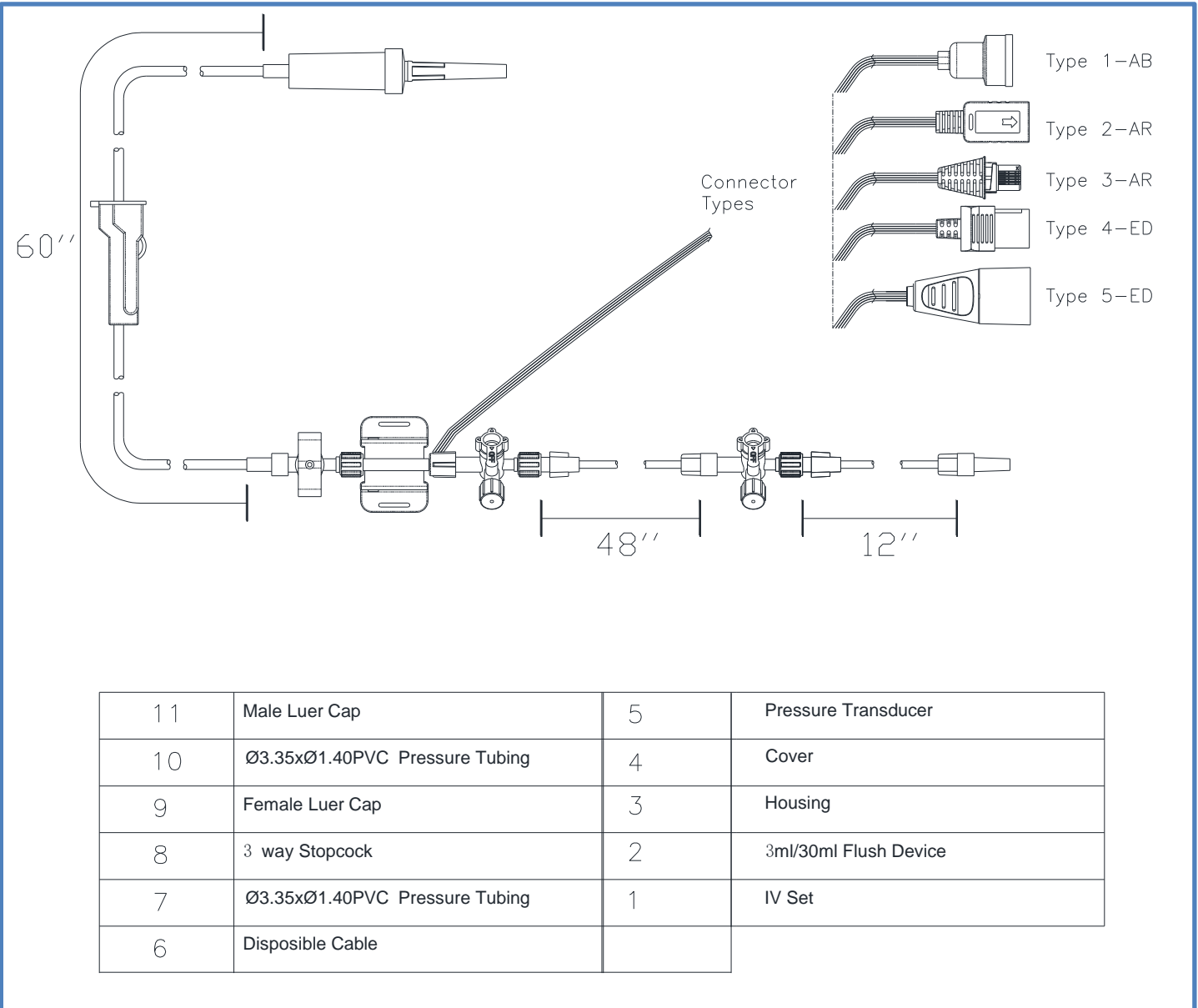
Light Sensitivity @3K Foot Candles			1		mmHg	
Defibrillator Isolation		5			Discharges	6
Shelf Life				5	Years	
Weight				0.5	grms	
Flow Properties						
Low Flow Test, 3ml /hr		1.9-5.0 ml/Hr @ 276mmHg				
Low Flow Test, 30mil/hr		20-40 ml/Hr @ 276mmHg				
High Flow Test		Minimum of 125ml/min@276mmHg				
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

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]



PART NUMBERING FOR ORDERS

Series	Connector Style	Flush Device (ml/Hr)	Stop Cock Handle (#Handles)	Housing Style
DPT-4PM	Type 1 (AB) Type 2 (AR) Type 3 (AR) Type 4 (ED) Type 5 (ED)	003 030	3H 4H	-CON4 Cable Only, No Flush Device or Stopcock, Narrow Gel Cup, 4 Pad -CON5S Cable Only, No Flush Device or Stopcock, Narrow Gel Cup, 5 Pad Shorted -COW4 Cable Only, No Flush Device or Stopcock, Wide Gel Cup, 4 Pad -COW5S Cable Only, No Flush Device or Stopcock, Wide Gel Cup, 5 Pad Shorted

Part Number Example: DPT-4AM AC 003 3H

**DPT-4PM Series with Custom Type 1 connector,
3ml Flush Mount Device, with 3 Handle Stopcocks**

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.