



HIGH PERFORMANCE, 5 VDC OUTPUT IS® PRESSURE TRANSDUCERS

BM-1100 SERIES

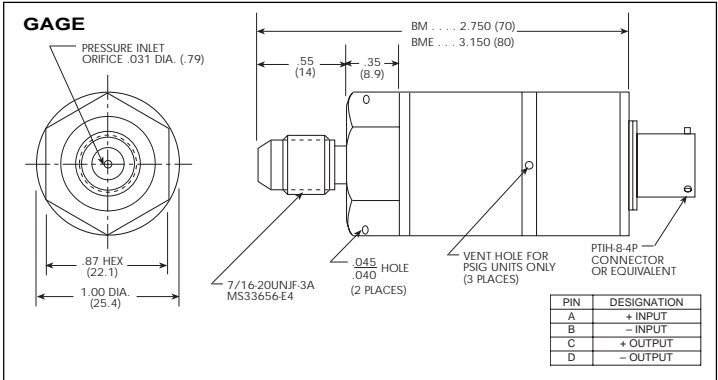
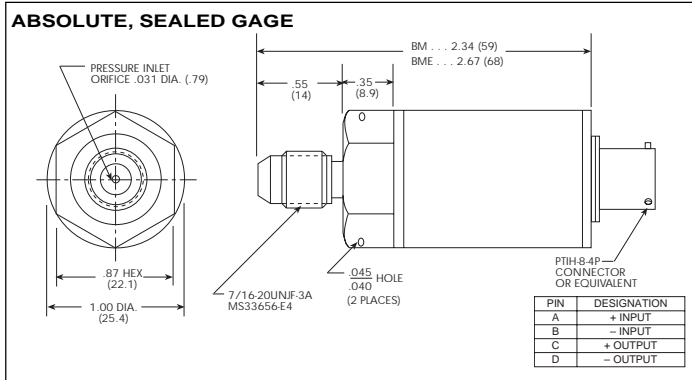
- High Unamplified Output
- Rugged All Welded Construction
- High Overload Capabilities
- Excellent Long Term Stability
- High Isolation

BME-1100 SERIES (AMPLIFIED)

- 5 VDC Output
- Rugged All Welded Construction
- High Overload Capabilities
- Excellent Long Term Stability



The ingenious application of modern solid state technology to transducer sensing makes the BM-1100 Series the most advanced pressure transducer available. Designed to measure liquid or gas pressure, the transducer is of all-welded stainless steel construction, with integral pressure port and diaphragm. The BM-1100 provides an extremely rugged, accurate and inexpensive means for pressure-to-voltage conversion. The inherently high unamplified output, and the ability to withstand high voltages between leads and case make the BM-1100 Series Transducers ideally suited for a large number of applications. Similar in design to the unamplified BM-1100 Series, the BME-1100 is a 5 volt unit containing a hybrid microelectronic amplifier and regulator within the all welded case.



INPUT
Pressure Range
Operational Mode
Over Pressure
Burst Pressure
Pressure Media
Rated Electrical Excitation
Maximum Electrical Excitation
Input Impedance
OUTPUT
Output Impedance
Full Scale Output (FSO)
Bandwidth (-3dB)
Residual Unbalance
Combined Non-Linearity, Hysteresis and Repeatability
Hysteresis
Repeatability
Resolution
Natural Frequency (KHz) (Typ.)
Insulation Resistance
ENVIRONMENTAL
Operating Temperature Range
Compensated Temperature Range
Thermal Zero Shift
Thermal Sensitivity Shift
Linear Vibration
Altitude
Humidity
Mechanical Shock
PHYSICAL
Pressure Port
Electrical Connection
Weight
Sensing Principle
Mounting Torque

	BM-1100				BME-1100			
Pressure Range	1.7	3.5	7	17	35	70	170	350 BAR
	25	50	100	250	500	1000	2500	5000 PSI
Operational Mode	Absolute, Sealed Gage, Vented Gage							
Over Pressure	2 Times Rated Pressure Range							
Burst Pressure	5 Times Rated Pressure Range to Max. of 20000 PSI							
Pressure Media	Any Liquid or Gas Compatible With 17-4PH or 316 SS							
Rated Electrical Excitation	10 VDC/AC (RMS)				28 VDC ± 4 VDC			
Maximum Electrical Excitation	12 VDC/AC (RMS)				N.A.			
Input Impedance	1000 Ohm (Min.)				N.A.			
Output Impedance	1000 Ohm (Nom.)				200 Ohm (4 Wire) (Max.)		50 Ohm (3 Wire) (Max.)	
Full Scale Output (FSO)	100 mV (Nom.)				5V ± 3%			
Bandwidth (-3dB)	DC to 5 kHz							
Residual Unbalance	± 2% FSO				0 ± 100 mV (4 Wire)		200 mV ± 100 mV (3 Wire)	
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.)							
Hysteresis	± 0.1% FSO (Max.)							
Repeatability	± 0.1% FSO (Typ.)							
Resolution	Infinitesimal							
Natural Frequency (KHz) (Typ.)	120	210	285	425	550	720	910	1120
Insulation Resistance	100 Megohm Min. at 50 VDC							
Operating Temperature Range	-65° F to +250° F (-55° C to +120° C)							
Compensated Temperature Range	0° F to +180° F (-18° C to +80° C) Other Ranges Quoted on Request							
Thermal Zero Shift	± 1% FS/100° F							
Thermal Sensitivity Shift	± 1% FS/100° F							
Linear Vibration	50g Peak, Sine 10 to 2000 Hz							
Altitude	-150 ft. to +70,000 ft. Will Not Damage Sensor							
Humidity	100% Relative Humidity							
Mechanical Shock	100g half Sine Wave 1 msec. Duration							
Pressure Port	A. 33656/E4 7/16-20 UNJF-3A		B. 1/4"-18 NPT Male			C. Other Ports Available		
Electrical Connection	PTIH-8-4P or Equivalent							
Weight	110 Grams Approx.				120 Grams Approx.			
Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon							
Mounting Torque	100 Inch-Pounds (Max.)							

Note: Custom pressure ranges, accuracies and mechanical configurations available. Continuous development and refinement of our products may result in specification changes without notice - all dimensions nominal. (B) A-Tech Instruments Ltd. • www.a-tech.ca, • email : sales@a-tech.ca • Tel: 416 754 7008 • Fax: 416 754 2351