

DIFFERENTIAL PRESSURE TRANSDUCERS BMD-1100 SERIES BMDE-1100 SERIES (AMPLIFIED)*

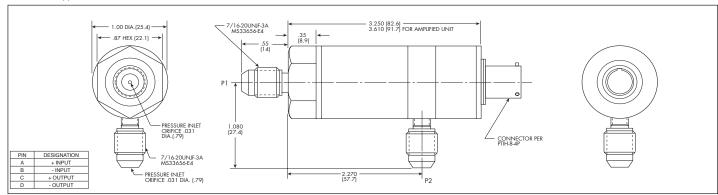
- High Natural Output
- Unprecedented Stability And Reliability Ruggedized Internal Construction
- Utmost in Safety Secondary Containment Of Pressure Media
- Leakproof, All Welded Construction
- Fully Qualified
 Passed Extensive
 Environmental Tests
- Intrinsically Safe Applications Available (i.e. IS-BMD-1100 or IS-BMDE-1100)

The Kulite BMD/BMDE-1100 Series pressure transducers are designed for the measurement of pressure drop across air and oil filters, engine torque and similar applications. Available either unamplified (100mV output) or amplified (5 volt output), these units are all stainless steel construction with weld sealing offering maximum accuracy and performance for industrial and aircraft applications.



* Ordering Information

3 Wire: BMDE-1100-XXXD-3 / 4 Wire: BMDE-1100-XXXD-4



Pressure Range			BMD-1100		BMDE-1100	
Dec	INPUT	Pressure Range				
Burst Pressure 3 Times Rated Pressure (P1 and P2)		Operational Mode	Differential			
Pressure Media		Over Pressure	2 Times Rated Pressure Main Port (P1) 2 Times Rated Pressure Reference Port (P2)			
Pressure Media		Burst Pressure	3 Times Rated Pressure (P1 and P2)			
Rated Electrical Excitation		Line Pressure	4 Times Rated Pressure, 1000 PSI Max. (69 Bar)			
Maximum Electrical Excitation 15 VDC		Pressure Media	(P1, P2) Any Liquid or Gas Compatible With 17-4 PH or 316 SS			
Input Impedance		Rated Electrical Excitation	10 VDC/	AC (RMS)	28 VDC ± 4 VDC	
Output Impedance		Maximum Electrical Excitation	15	VDC	N.A.	
Full Scale Output (FSO) 100 mV (Nom.) 5 VDC ± 3%		Input Impedance	1000 O	hm (Min.)	N.A.	
Bandwidth (-3dB)	OUTPUT	Output Impedance	1000 Oh	nm (Nom.)	200 Ohm (4 Wire) (Max.)	50 Ohm (3 Wire) (Max.)
Residual Unbalance Combined Non-Linearity, Hysteresis and Repeatability Resolution Natural Frequency (KHz) (Typ.) Insulation Resistance Operating Temperature Range Compensated Temperature Range Thermal Zero Shift Thermal Sensitivity Shift Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Residual Unbalance ± 5 mV (Typ.) 0 ± 100 mV (4 Wire) 200 mV ± 100 mV (3 Wire) 200 mV ± 100 mV (4 Wire) 200 mV ± 100 mV (3 Wire) 200 mV ± 100 mV (4 Wire) 200 must described and a second and a seco		Full Scale Output (FSO)	100 m ³	V (Nom.)	5 VDC ± 3%	
Resolution Natural Frequency (KHz) (Typ.) Insulation Resistance Operating Temperature Range Compensated Temperature Range Thermal Zero Shift Thermal Sensitivity Shift Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Resolution Natural Frequency (KHz) (Typ.) 120 210 285 425 100 Megohm Min. @ 50 VDC 100 Megohm Min. @ 50 VDC 0°F to +120°C) Compensated Temperature Range 0°F to +180°F (-18°C to +80°C) Other Ranges Quoted on Request ± 1% FS/100°F (Typ.) 1100 Relative Humidity 100% Relative Hu		Bandwidth (-3dB)	DC to 5 KHz			
Resolution Natural Frequency (KHz) (Typ.) Insulation Resistance Operating Temperature Range Compensated Temperature Range Thermal Zero Shift Thermal Sensitivity Shift Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Resolution Natural Frequency (KHz) (Typ.) 120 210 285 425 100 Megohm Min. @ 50 VDC 100 Megohm Min. @ 50 VDC 0°F to +120°C) Compensated Temperature Range 0°F to +180°F (-18°C to +80°C) Other Ranges Quoted on Request ± 1% FS/100°F (Typ.) 1100 Relative Humidity 100% Relative Hu		Residual Unbalance	± 5 m	V (Typ.)	0 ± 100 mV (4 Wire)	200 mV ± 100 mV (3 Wire)
Natural Frequency (KHz) (Typ.) Insulation Resistance Operating Temperature Range Compensated Temperature Range Thermal Zero Shift Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Natural Frequency (KHz) (Typ.) 120 210 285 425 425 100 Megohm Min. © 50 VDC Operating Temperature Range O°F to +180°F (-55°C to +120°C) O°F to +180°F (-18°C to +80°C) Other Ranges Quoted on Request ± 1% FS/100°F (Typ.) Thermal Sensitivity Shift ± 1% /100°F (Typ.) 100% Relative Humidity Mechanical Shock Pressure Port MS33656-E4 7/16-20 UNJF-3A Electrical Connection PTIH-8-4P Connector or Equivalent Weight Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon			± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)			
Insulation Resistance Operating Temperature Range Compensated Temperature Range Thermal Zero Shift Thermal Sensitivity Shift Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Weight Pressure Sensing Principle Operating Temperature Range 100 Megohm Min. @ 50 VDC 100 Megohm Min. @ 50 VDC Omegohm Min. @ 50 VDC Other Ranges Quoted on Request ### /100°F (Typ.) ### 1% /100°F (Typ.) Down Humidity ### 100% Relative Humidity Mechanical Shock 100g half Sine Wave 11 msec. Duration Pressure Port Electrical Connection PTIH-8-4P Connector or Equivalent Weight Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Resolution	Infinitesimal			
Operating Temperature Range Compensated Temperature Range Thermal Zero Shift Thermal Sensitivity Shift Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Weight Pressure Sensing Principle Operating Temperature Range 10°F to +180°F (-55°C to +120°C) Or to +180°F (-55°C to +120°C) Off to +180°F (-55°C to +120°C) Off to +180°F (-55°C to +120°C) Off to +180°F (-55°C to +120°C) Other Ranges Quoted on Request ± 1% FS/100°F (Typ.) 1 100°F (Typ.) 1 200 Grams Approx. PTIH-8-4P Connector or Equivalent 270 Grams Approx. Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Natural Frequency (KHz) (Typ.)	120	210	285	425
Compensated Temperature Range Thermal Zero Shift Thermal Sensitivity Shift Linear Vibration Humidity Mechanical Shock Pressure Port Electrical Connection Weight Pressure Sensing Principle Compensated Temperature Range 0°F to +180°F (-18°C to +80°C) Other Ranges Quoted on Request ± 1% FS/100°F (Typ.) ± 1% /100°F (Typ.) 100% Relative Humidity 100% Relative Humidity MS33656-E4 7/16-20 UNJF-3A PTIH-8-4P Connector or Equivalent 200 Grams Approx. Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Insulation Resistance	100 Megohm Min. @ 50 VDC			
Mechanical Shock Pressure Port MS33656-E4 7/16-20 UNJF-3A Electrical Connection PTIH-8-4P Connector or Equivalent Weight Pressure Sensing Principle Weight MS3656-E4 7/16-20 UNJF-3A PTIH-8-4P Connector or Equivalent 200 Grams Approx. Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Operating Temperature Range	-65°F to +250°F (-55°C to +120°C)			
Mechanical Shock Pressure Port MS33656-E4 7/16-20 UNJF-3A Electrical Connection PTIH-8-4P Connector or Equivalent Weight Pressure Sensing Principle Weight MS3656-E4 7/16-20 UNJF-3A PTIH-8-4P Connector or Equivalent 200 Grams Approx. Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Compensated Temperature Range	0°F to +180°F (-18°C to +80°C) Other Ranges Quoted on Request			
Mechanical Shock Pressure Port MS33656-E4 7/16-20 UNJF-3A Electrical Connection PTIH-8-4P Connector or Equivalent Weight Pressure Sensing Principle Weight MS3656-E4 7/16-20 UNJF-3A PTIH-8-4P Connector or Equivalent 200 Grams Approx. Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Thermal Zero Shift	± 1% FS/100°F (Typ.)			
Mechanical Shock Pressure Port MS33656-E4 7/16-20 UNJF-3A Electrical Connection PTIH-8-4P Connector or Equivalent Weight Pressure Sensing Principle Weight MS3656-E4 7/16-20 UNJF-3A PTIH-8-4P Connector or Equivalent 200 Grams Approx. Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Thermal Sensitivity Shift	± 1% /100°F (Typ.)			
Mechanical Shock Pressure Port MS33656-E4 7/16-20 UNJF-3A Electrical Connection PTIH-8-4P Connector or Equivalent Weight Pressure Sensing Principle Weight MS3656-E4 7/16-20 UNJF-3A PTIH-8-4P Connector or Equivalent 200 Grams Approx. Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Linear Vibration	50g Peak, Sine 10 to 2000 Hz			
Pressure Port Pressure Port MS33656-E4 7/16-20 UNJF-3A		Humidity	100% Relative Humidity			
Electrical Connection Weight Pressure Sensing Principle PTIH-8-4P Connector or Equivalent 200 Grams Approx. Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		Mechanical Shock	100g half Sine Wave 11 msec. Duration			
		Pressure Port	MS33656-E4 7/16-20 UNJF-3A			
		Electrical Connection	PTIH-8-4P Connector or Equivalent			
		Weight	200 Grams Approx. 270 Grams Approx.			
Mounting Torque 100 Inch-PoundsH0	F	Pressure Sensing Principle	· · · · · · · · · · · · · · · · · · ·			
	L	Mounting Torque	100 Inch-PoundsHOSI			