



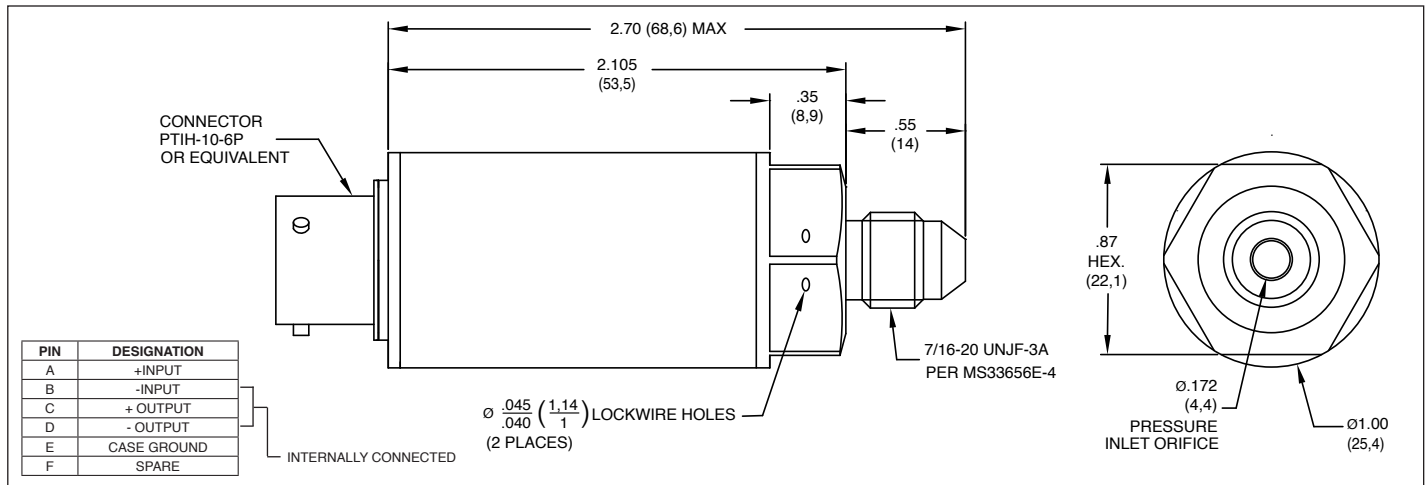
# VOLTAGE OUTPUT DIGITALLY CORRECTED PRESSURE TRANSDUCER

## BME-88-1000 Series

- Ideal for Static Pressure Measurements
- Robust Construction
- High Accuracy
- Digitally Corrected
- Silicon on Silicon Integrated Sensor **VIS**<sup>®</sup>
- Intrinsically Safe Applications Available (i.e. IS-BME-88-1000)



The BME-88-1000 offers a high accuracy voltage output with a total error band of  $\pm 0.25\%$  FSO across the ultra-wide temperature range of  $-40^{\circ}\text{F}$  to  $+284^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$  to  $+140^{\circ}\text{C}$ ). Designed to measure liquid or gas pressure (with its all-welded, hermetic stainless steel construction), the transducer is ideal for road test, flight test and industrial sensing applications.



INPUT	Pressure Range	1 15	3.5 50	7 100	17 250	35 500	70 1000	170 2500	350 BAR 5000 PSI	
	Operational Mode	Absolute								
	Over Pressure	2 Times Rated Pressure to a Maximum of 5000 PSI (350 BAR)								
	Burst Pressure	3 Times Rated Pressure to a Maximum of 5000 PSI (350 BAR)								
	Pressure Media	Any Media Compatible With 316 SS								
	Rated Electrical Excitation	8 - 30 VDC (8-24 VDC For IS)								
	Maximum Electrical Current	3.5 mA (Max.)								
OUTPUT	Output Impedance	250 Ohms (Max.)								
	Full Scale Output (Net)	4.0 VDC $\pm$ 0.025 VDC								
	Total Error Band (Excluding End Points)	$\pm 0.25\%$ FSO (Max.) (Combined Non-Linearity, Hysteresis, Repeatability and All Thermal Effects Included)								
	Response Time	2 Milliseconds (Typ.) @ 200 Hz Bandwidth								
	Bandwidth (-3dB)	750 Hz (Typ.)								
	Residual Unbalance	0.5 VDC $\pm$ 0.025 VDC								
	Insulation Resistance	100 Megohm Min. @ 50 VDC								
ENVIRONMENTAL	Operating Temperature Range	$-40^{\circ}\text{F}$ to $+284^{\circ}\text{F}$ ( $-40^{\circ}\text{C}$ to $+140^{\circ}\text{C}$ )								
	Compensated Temperature Range	$-40^{\circ}\text{F}$ to $+284^{\circ}\text{F}$ ( $-40^{\circ}\text{C}$ to $+140^{\circ}\text{C}$ )								
	Humidity	100% Relative Humidity								
PHYSICAL	Electrical Connection	PTIH-10-6P Connector or Equivalent								
	Weight	110 Grams (Max.)								
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon								
	Mounting Torque	75 Inch-Pounds (Max.) (8.5 Nm)								

Note 1: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (L) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2020 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.