

Model Number 121A41	ICP® PRESSURE SENSOR		Revision: C ECN #: 30245																																																																																																								
Performance <table border="0" style="width: 100%;"> <tr> <td>Measurement Range(for ±5V output)</td> <td>ENGLISH 100 psi</td> <td>SI 689.5 kPa</td> <td></td> </tr> <tr> <td>Sensitivity(± 15 %)</td> <td>50 mV/psi</td> <td>7.25 mV/kPa</td> <td></td> </tr> <tr> <td>Maximum Pressure</td> <td>8 kpsi</td> <td>55.16 MPa</td> <td>[8]</td> </tr> <tr> <td>Resolution</td> <td>4 mpsi</td> <td>0.028 kPa</td> <td></td> </tr> <tr> <td>Resonant Frequency</td> <td>≥60 kHz</td> <td>≥60 kHz</td> <td></td> </tr> <tr> <td>Rise Time(Reflected)</td> <td>≤4 μ sec</td> <td>≤4 μ sec</td> <td></td> </tr> <tr> <td>Low Frequency Response(-5 %)</td> <td>0.5 Hz</td> <td>0.5 Hz</td> <td></td> </tr> <tr> <td>Non-Linearity</td> <td>≤2.0 % FS</td> <td>≤2.0 % FS</td> <td>[9]</td> </tr> </table> Environmental <table border="0" style="width: 100%;"> <tr> <td>Acceleration Sensitivity</td> <td>≤0.05 psi/g</td> <td>≤0.035 kPa/(m/s²)</td> <td></td> </tr> <tr> <td>Temperature Range(Operating)</td> <td>-65 to +250 °F</td> <td>-54 to +121 °C</td> <td></td> </tr> <tr> <td>Hazardous Area Approval</td> <td>CSA (C-US) NRTL - Canadian Standards Association</td> <td>CSA (C-US) NRTL - Canadian Standards Association</td> <td>[1][2][3][4]</td> </tr> <tr> <td>Hazardous Area Approval</td> <td>ATEX</td> <td>ATEX</td> <td>[5][6][7]</td> </tr> </table> Electrical <table border="0" style="width: 100%;"> <tr> <td>Output Polarity(Positive Pressure)</td> <td>Positive</td> <td>Positive</td> <td></td> </tr> <tr> <td>Discharge Time Constant(at room temp)</td> <td>≥1.0 sec</td> <td>≥1.0 sec</td> <td></td> </tr> <tr> <td>Excitation Voltage</td> <td>22 to 28 VDC</td> <td>22 to 28 VDC</td> <td></td> </tr> <tr> <td>Constant Current Excitation</td> <td>2 to 20 mA</td> <td>2 to 20 mA</td> <td></td> </tr> <tr> <td>Output Impedance</td> <td><100 ohm</td> <td><100 ohm</td> <td></td> </tr> <tr> <td>Output Bias Voltage</td> <td>10 to 15 VDC</td> <td>10 to 15 VDC</td> <td></td> </tr> <tr> <td>Electrical Isolation</td> <td>≥10⁸ ohm</td> <td>≥10⁸ ohm</td> <td></td> </tr> </table> Physical <table border="0" style="width: 100%;"> <tr> <td>Sensing Geometry</td> <td>Compression</td> <td>Compression</td> <td></td> </tr> <tr> <td>Sensing Element</td> <td>Quartz</td> <td>Quartz</td> <td></td> </tr> <tr> <td>Housing Material</td> <td>316L Stainless Steel</td> <td>316L Stainless Steel</td> <td></td> </tr> <tr> <td>Diaphragm</td> <td>316L Stainless Steel</td> <td>316L Stainless Steel</td> <td></td> </tr> <tr> <td>Sealing</td> <td>Welded Hermetic</td> <td>Welded Hermetic</td> <td></td> </tr> <tr> <td>Electrical Connector</td> <td>2-Pin MIL-C-5015</td> <td>2-Pin MIL-C-5015</td> <td></td> </tr> <tr> <td>Weight</td> <td>2.7 oz</td> <td>75.6 gm</td> <td></td> </tr> </table> OPTIONAL VERSIONS Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used. NOTES: [1] AEx ia IIC T4, DIV1 CL1 GR A-D [2] Ex ia IIC T4, DIV1 CL1 GR A-D [3] AEx nA IIC T4, DIV2 CL1 GR A-D [4] Ex nL IIC T4, DIV2 CL1 GR A-D [5] Ex ia IIC T4. [6] Ex nL IIC T4. [7] Ex nA IIC T4. [8] Due to high sensitivity, the static pressure should be applied and removed very slowly. Rate should prevent more than 10 Volt change in output until Output Bias Voltage returns to normal (approximately 15 times discharge time constant). [9] Zero-based, least-squares, straight line method. [10] See PCB Declaration of Conformance PS059 for details.				Measurement Range(for ±5V output)	ENGLISH 100 psi	SI 689.5 kPa		Sensitivity(± 15 %)	50 mV/psi	7.25 mV/kPa		Maximum Pressure	8 kpsi	55.16 MPa	[8]	Resolution	4 mpsi	0.028 kPa		Resonant Frequency	≥60 kHz	≥60 kHz		Rise Time(Reflected)	≤4 μ sec	≤4 μ sec		Low Frequency Response(-5 %)	0.5 Hz	0.5 Hz		Non-Linearity	≤2.0 % FS	≤2.0 % FS	[9]	Acceleration Sensitivity	≤0.05 psi/g	≤0.035 kPa/(m/s²)		Temperature Range(Operating)	-65 to +250 °F	-54 to +121 °C		Hazardous Area Approval	CSA (C-US) NRTL - Canadian Standards Association	CSA (C-US) NRTL - Canadian Standards Association	[1][2][3][4]	Hazardous Area Approval	ATEX	ATEX	[5][6][7]	Output Polarity(Positive Pressure)	Positive	Positive		Discharge Time Constant(at room temp)	≥1.0 sec	≥1.0 sec		Excitation Voltage	22 to 28 VDC	22 to 28 VDC		Constant Current Excitation	2 to 20 mA	2 to 20 mA		Output Impedance	<100 ohm	<100 ohm		Output Bias Voltage	10 to 15 VDC	10 to 15 VDC		Electrical Isolation	≥10 ⁸ ohm	≥10 ⁸ ohm		Sensing Geometry	Compression	Compression		Sensing Element	Quartz	Quartz		Housing Material	316L Stainless Steel	316L Stainless Steel		Diaphragm	316L Stainless Steel	316L Stainless Steel		Sealing	Welded Hermetic	Welded Hermetic		Electrical Connector	2-Pin MIL-C-5015	2-Pin MIL-C-5015		Weight	2.7 oz	75.6 gm	
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[10] All specifications are at room temperature unless otherwise specified. In the interest of constant product improvement, we reserve the right to change specifications without notice. ICP® is a registered trademark of PCB Group, Inc. PCB PIEZOTRONICS™ PRESSURE DIVISION 3425 Walden Avenue, Depew, NY 14043																																																																																																											
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