ICP® PRESSURE SENSORS

IMI SENSORS
A PCB DIVISION

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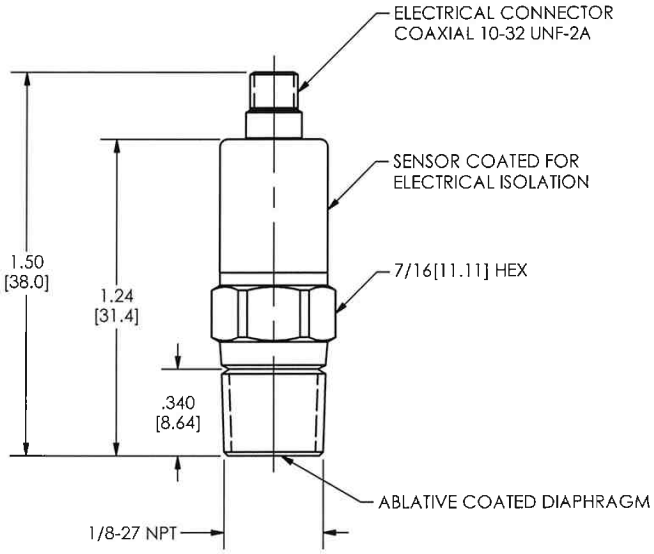
ICP® PRESSURE SENSOR

MODELS 102A43, 102A44, 102A45

- Detect and monitor pulsations, instability, surges, turbulence and acoustics
- Hazardous location troubleshooting, predictive maintenance and process improvement
- All-welded, hermetically sealed, stainless steel construction
- For gas compressors, chemical plants, power generation and hazardous processes

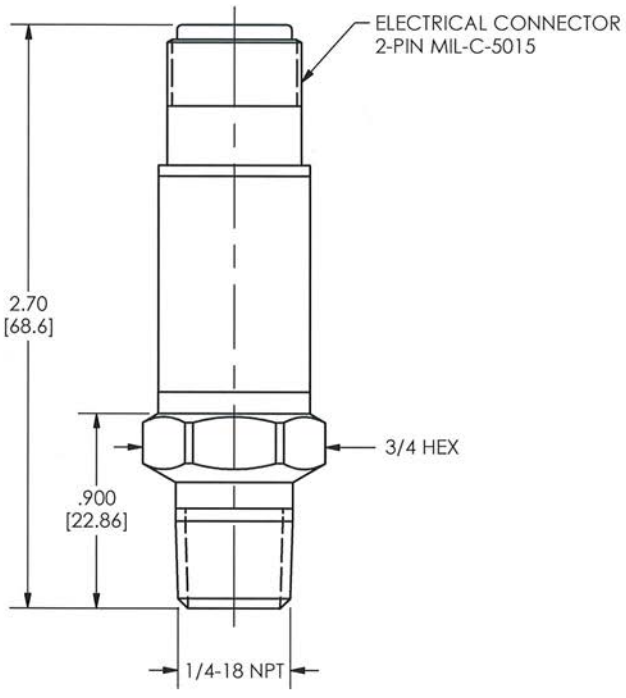


SPECIFICATIONS			
Model Number	**102A43**	**102A44**	**102A45**
Performance			
Sensitivity (±15%)	1 mV/psi 14.5 mV/bar	100 mV/psi 1450 mV/bar	10 mV/psi 145 mV/bar
Measurement Range	5,000 psi 344.7 bar	50 psi 3.5 bar	500 psi 34.5 bar
Maximum Pressure (Total)	8,000 psi 551.6 bar	4,000 psi 275.8 bar	4,000 psi 275.8 bar
Resolution	0.1 psi 0.007 bar	0.001 psi 0.007 bar	0.010 psi 0.007 bar
Resonant Frequency	> 250 kHz		
Rise Time (Reflected)	< 2 µ sec		
Low Frequency Response (-5 %)	0.5 Hz		
Non-Linearity	< 1 %		
Environmental			
Acceleration Sensitivity	< 0.002 psi < 0.03 bar		
Temperature Range (Operating)	-65 to +250 °F -54 to +121 °C		
Temperature Coefficient of Sensitivity	< 0.1 %/°F < 0.018 %/°C		
Hazardous Area Approval	ATEX, CSA, IECEx		
Electrical			
Output Polarity (Positive Pressure)	Positive		
Discharge Time Constant (at room temp)	> 1.0 sec		
Excitation Voltage	20 to 28 VDC		
Constant Current Excitation	2 to 20 mA		
Output Impedance	< 100 ohm		
Output Bias Voltage	8 to 14 VDC		
Electrical Isolation (Ground)	> 10^8 ohm		
Physical			
Sensing Geometry	Compression		
Sensing Element	Quartz		
Housing Material	17-4 PH Stainless Steel		
Diaphragm	316 L Stainless Steel		
Sealing	Welded Hermetic		
Mounting Thread	1/8-27 NPT		
Electrical Connector	10–32 Coaxial Jack		
Weight	0.6 oz 17 g	0.6 oz 17 g	0.6 oz 17 g

ICP® PRESSURE SENSOR

MODELS 121A41, 121A44, 121A45

- Detect and monitor pulsations, instability, surges, turbulence and acoustics
- Hazardous location troubleshooting, predictive maintenance and process improvement
- All-welded, hermetically sealed, stainless steel construction
- For gas compressors, chemical plants, power generation and hazardous processes



SPECIFICATIONS			
Model Number	**121A41**	**121A44**	**121A45**
Performance			
Sensitivity (±15%)	50 mV/psi 725.2 mV/bar	100 mV/psi 1450 mV/bar	10 mV/psi 145 mV/bar
Measurement Range	100 psi 6.9 bar	50 psi 3.4 bar	500 psi 34.5 bar
Maximum Pressure (Total)	8,000 psi 551.6 bar	8,000 psi 551.6 bar	8,000 psi 551.6 bar
Resolution	0.004 psi 0.0003 bar	0.0005 psi 0.0003 bar	0.003 psi 0.0003 bar
Resonant Frequency	> 60 kHz		
Rise Time (Reflected)	< 4 µ sec		
Low Frequency Response (-5 %)	0.5 Hz		
Non-Linearity	< 2 %		
Environmental			
Acceleration Sensitivity	< 0.05 psi < 0.73 bar		
Temperature Range (Operating)	-65 to +250 °F -54 to +121 °C		
Temperature Coefficient of Sensitivity	< 0.1 %/°F < 0.018%/°C		
Hazardous Area Approval	ATEX, CSA, IECEx		
Electrical			
Output Polarity (Positive Pressure)	Positive		
Discharge Time Constant (at room temp)	> 1.0 sec		
Excitation Voltage	22 to 28 VDC		
Constant Current Excitation	2 to 20 mA		
Output Impedance	< 100 ohm		
Output Bias Voltage	10 to 15 VDC		8 to 14 VDC
Electrical Isolation (Case)	> 10^8 ohm		
Physical			
Sensing Geometry	Compression		
Sensing Element	Quartz		
Housing Material	316L Stainless Steel		
Diaphragm	316L Stainless Steel		
Sealing	Welded Hermetic		
Mounting Thread	1/4-18 NPT		
Electrical Connector	2-Pin MIL-C-5015		
Weight	2.7 oz 75.6 g	2.7 oz 75.6 g	2.7 oz 75.6 g

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