Model Number 102M 81A		ICP® F	PRESSURE	SENSOR
Performance	ENGLISH	SI		0 11 1 1
Measurement Range(for ±5V output)	500 psi	3,447 kPa	[1]	Optional versions
Useful Overrange(for ± 10V output)	1,000 psi	6,895 kPa	[2]	
Sensitivity(± 15 %)	10 mV/psi	1.45 mV/kPa		
Maximum Pressure(step)	5,000 psi	34,500 kPa		
Maximum Pressure(Total)	7.5 kpsi	51,711 kPa	[3]	
Resolution	10 mpsi	0.0689 kPa	[4]	
Resonant Frequency	≥ 250 kHz	≥ 250 kHz		
Rise Time(Reflected)	≤ 2.0 µ sec	≤ 2.0 µ sec		
Non-Linearity	≤ 1.0 % FS	≤ 1.0 % FS	[5]	
Environmental				
Acceleration Sensitivity	0.002 psi/g	$0.0014 \text{kPa/(m/s}^2)$	[4]	
Temperature Range(Operating)	-320 to +212 °F	-196 to +100 °C		
Temperature Coefficient of Sensitivity	≤ 0.06 %/°F	≤ 0.108 %/°C		
Maximum Flash Temperature	3,000 °F	1648.89 ℃		
Maximum Vibration	2,000 g pk	19,600 m/s² pk		
Maximum Shock	20,000 g pk	196,000 m/s² pk		
Electrical				
Output Polarity(Positive Pressure)	Positive	Positive		
Discharge Time Constant(at room temp)	≥ 1.0 sec	≥ 1.0 sec		
Excitation Voltage	15 to 30 VDC	15 to 30 VDC		
Constant Current Excitation	2 to 20 mA	2 to 20 mA		
Output Impedance	≤ 500 Ohm	≤ 500 Ohm		
Output Bias Voltage	3 to 8 VDC	3 to 8 VDC		
Physical				
Housing Material	304L/316L Stainless Steel	304L/316L Stainless Stee	el	
Thread Adaptor Material	Vascomax C-300	Vascomax C-300		
Diaphragm	316L Stainless Steel	316L Stainless Steel		
Sealing	Welded Hermetic	Welded Hermetic		
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack		
Weight	0.9 oz	25 gm		

OPTIONAL VERSIONS

Revision: B

ECN #: 54975

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]-5V output may be limited by the output bias.

[2] For +10 volt output, minimum 24 VDC supply voltage required. Negative 10 volt output may be limited by output bias.

[3] 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).

[4]Typical.

[5]Zero-based, least-squares, straight line method.

[6] See PCB Declaration of Conformance PS023 for details.

SUPPLIED ACCESSORIES:

Model PCS-10AA Single point sensitivity coefficient at sensor minimum operating temperature (-320°F / -196°C limit)

Model PCS-1AZ Sensitivity calibration at 100% and 10% of sensor range

Entered: ND	Engineer: AJA	Sales: RWM	Approved: RPF	Spec Number:
Date: 07/16/2024	Date: 07/16/2024	Date: 07/16/2024	Date: 07/16/2024	65696



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CE

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.

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