

**Model Number**  
176A33

# CHARGE OUTPUT PRESSURE SENSOR

Revision: B  
ECN #: 55057

**Performance**

	ENGLISH	SI	
Sensitivity(± 20 %)	6 pC/psi	87 pC/bar	
Measurement Range	3,000 psi	206.8 bar	
Maximum Pressure(Total)	5,200 psi	358.5 bar	
Resonant Frequency	≥ 100 kHz	≥ 100 kHz	
Transverse Resonance	> 15 kHz	> 15 kHz	
Frequency Response(± 5 %)	20 kHz	20 kHz	[1][2]
Non-Linearity	≤ 1 % FS	≤ 1 % FS	[3]

**Environmental**

Acceleration Sensitivity	0.0036 psi/g	.00025 bar/g	[4]
Acceleration Sensitivity	.002 pC/g	.00014 bar/g	[5]
Temperature Range(Operating)	-94 to 1,400 °F	-70 to 760 °C	
Temperature Range(Connector)	-65 to 900 °F	-54 to 482 °C	
Temperature Response	See Graph	See Graph	[5]
Hazardous Area Approval	See Manual	See Manual	
Radiation Exposure Limit(Integrated Neutron Flux)	1E10 N/cm <sup>2</sup>	1E10 N/cm <sup>2</sup>	
Radiation Exposure Limit(Integrated Gamma Flux)	1E8 rad	1E8 rad	

**Electrical**

Output Polarity(Positive Pressure)	Positive	Positive	
Capacitance	270 pF	270 pF	[5]
Resistance(Pin-Pin)(Room Temp)	≥ 1E12 Ohm	≥ 1E12 Ohm	
Resistance(Pin-Case)(Room Temp)	≥ 1E12 Ohm	≥ 1E12 Ohm	
Resistance(Pin-Pin)(1400°F/760°C)	≥ 50 kohm	≥ 50 kohm	
Resistance(Pin-Case)(1400°F/760°C)	≥ 100 kohm	≥ 100 kohm	

**Physical**

Sensing Element	UHT-12™	UHT-12™	
Sensing Geometry	Compression	Compression	
Housing Material	Nickel Alloy	Nickel Alloy	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Cable Type	Hardline	Hardline	
Cable Length	3 ft	0.91 m	
Weight(with cable)	3.10 oz	88 gm	[5]

**OPTIONAL VERSIONS**

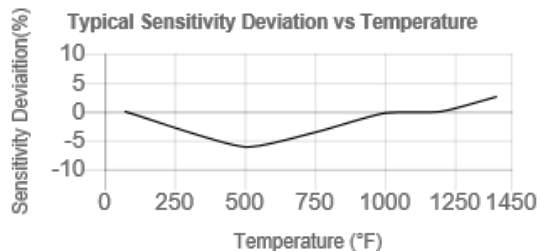
Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

**NOTES:**

- [1]Low frequency response is determined by external signal conditioning electronics.
- [2]Upper frequency response is calculated from Resonant Frequency.
- [3]Zero-based, least-squares line method.
- [4]Maximum.
- [5]Typical.
- [6]See PCB Declaration of Conformance PS058 for details.

**SUPPLIED ACCESSORIES:**

Model 72836-01 Silver Plated, Nickel Alloy, Seal. (3)  
Model PCS-1 Calibration of dynamic pressure sensors at 100% full scale, max 15 kpsi range.



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.

Entered: ND	Engineer: AJA	Sales: MV	Approved: RPF	Spec Number:
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