

Model Number
176A03

CHARGE OUTPUT PRESSURE SENSOR

Revision: F
ECN #: 55057

Performance

	ENGLISH	SI	
Sensitivity(± 20 %)	16 pC/psi	232 pC/bar	
Measurement Range	290 psi	20 bar	
Maximum Pressure(Total)	5,000 psi	344.7 bar	
Resonant Frequency	≥ 50 kHz	≥ 50 kHz	
Transverse Resonance	10 kHz	10 kHz	[1]
Frequency Response(+/- 5 %)	10 kHz	10 kHz	[2][3]
Non-Linearity	≤ 1 % FS	≤ 1 % FS	[4]

Environmental

Acceleration Sensitivity	0.003 psi/g	0.00021 bar/g	[1]
Acceleration Sensitivity	.007 psi/g	.00050 bar/g	[5]
Temperature Range(Continuous)	-94 to 1,200 °F	-70 to 650 °C	
Temperature Range(Connector)	-76 to 500 °F	-60 to 260 °C	
Temperature Response	See Graph	See Graph	
Hazardous Area Approval	See Manual	See Manual	
Radiation Exposure Limit(Integrated Gamma Flux)	1E8 rad	1E8 rad	
Radiation Exposure Limit(Integrated Neutron Flux)	1E10 N/cm ²	1E10 N/cm ²	

Electrical

Output Polarity	Differential	Differential	
Capacitance(with cable pin - pin)	170 pF	170 pF	[1]
Resistance(Pin-Pin)(Room Temp)	≥ 10 ¹² Ohm	≥ 10 ¹² Ohm	
Resistance(Pin-Case)(Room Temp)	≥ 10 ¹² Ohm	≥ 10 ¹² Ohm	
Resistance(Pin-Pin)(1200°F/650°C)	≥ 50 kohm	≥ 50 kohm	
Resistance(Pin-Case)(1200°F/650°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	7/16-27 2-Pin	7/16-27 2-Pin	
Cable Type	Overbraided Hardline	Overbraided Hardline	
Cable Length	10 ft	3.05 m	
Weight(with cable)	17.6 oz	500 gm	

OPTIONAL VERSIONS

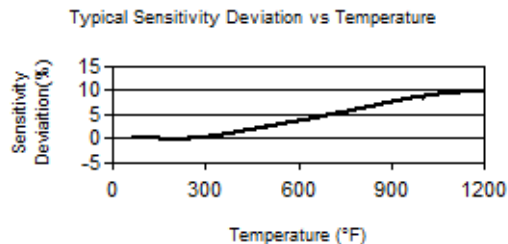
Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

NOTES:

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

SUPPLIED ACCESSORIES:

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: NJF	Spec Number:
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