

Model Number
176A31

CHARGE OUTPUT PRESSURE SENSOR

Revision: B
ECN #: 54257

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

	ENGLISH	SI	
Acceleration Sensitivity	≤ 0.0036 psi/g	≤ .00025 bar/g	
Temperature Range(Operating)	-94 to 1,400 °F	-70 to 760 °C	
Temperature Range(Connector)	-65 to 900 °F	-53.9 to 482.2 °C	
Temperature Response	See Graph	See Graph	[4]
Hazardous Area Approval	See Manual	See Manual	
Radiation Exposure Limit(Integrated Neutron Flux)	1E10 N/cm ²	1E10 N/cm ²	
Radiation Exposure Limit(Integrated Gamma Flux)	1E8 rad	1E8 rad	

Electrical

	ENGLISH	SI	
Output Polarity(Differential)	Differential	Differential	
Capacitance	70 pF	70 pF	[4]
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)	≥ 50,000 Ohm	≥ 50,000 Ohm	
Resistance(Pin-Case)(1400°F/760°C)	≥ 100,000 Ohm	≥ 100,000 Ohm	

Physical

	ENGLISH	SI	
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	Hardline	Hardline	
Cable Length	3 ft	0.91 m	
Weight(with cable)	4.73 oz	134 gm	[4]

OPTIONAL VERSIONS

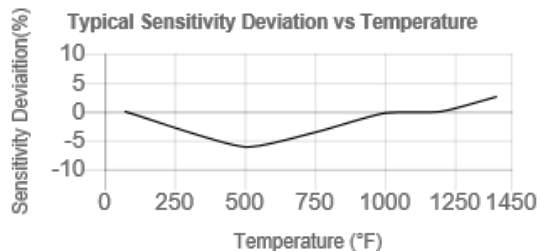
Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

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]Typical.
- [5]See PCB Declaration of Conformance PS058 for details.

SUPPLIED ACCESSORIES:

Model 72836-01 Silver Plated, Nickel Alloy, Seal. (3)



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: RPF	Sales: DPC	Approved: RPF	Spec Number:
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