

Model Number
176M03

CHARGE OUTPUT PRESSURE SENSOR

Revision: M
ECN #: 55057

Performance

	ENGLISH	SI	
Sensitivity(± 20 %)	17 pC/psi	247 pC/bar	
Measurement Range	20 psi	1.4 bar	
Maximum Pressure(Total)	400 psi	27.6 bar	
Resonant Frequency	> 50 kHz	> 50 kHz	
Transverse Resonance	≥ 5 kHz	≥ 5 kHz	
Frequency Response	10 kHz	10 kHz	[1][2]
Non-Linearity	≤ 1 % FS	≤ 1 % FS	[3]

Environmental

Acceleration Sensitivity	0.01 psi/g	.00069 bar/g	[4]
Acceleration Sensitivity	.003 psi/g	.00021 bar/g	[5]
Temperature Range(Continuous)	-94 to 986 °F	-70 to 530 °C	
Temperature Range(Receptacle)	-76 to 500 °F	-60 to 260 °C	
Temperature Response	See Graph	See Graph	[5]
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	Differential	
Capacitance(with cable pin - pin)	165 pF	165 pF	[5]
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)(986°F/530°C)	≥ 50 kohm	≥ 50 kohm	
Resistance(Pin-Case)(986°F/530°C)	≥ 100 kohm	≥ 100 kohm	
Insulation Resistance	100	100	

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	
Weight(with clamp nut & cable)	4.9 oz	140 gm	

OPTIONAL VERSIONS

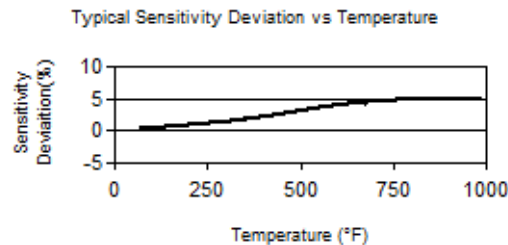
Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

NOTES:

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

SUPPLIED ACCESSORIES:

Model 30498-01 Clamp nut (1)
Model 40890-01 Silver plated, ss, seal (6)
Model PCS-1 Calibration of dynamic pressure sensors at 100% full scale, max 15 kpsi range.



[6]



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