

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	See Graph	See Graph	
Insulation Resistance	See Graph	See Graph	
Insulation Resistance	100	100	
Insulation Resistance	See Graph	See Graph	

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

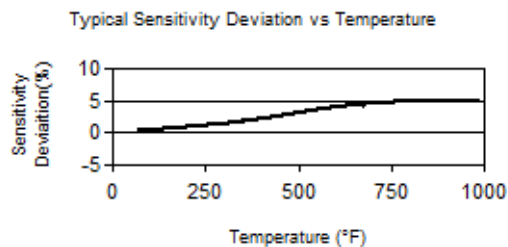
Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

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.



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.
ICP® is a registered trademark of PCB Piezotronics, Inc.

Entered: ND	Engineer: AJA	Sales: MV	Approved: RPF	Spec Number:
Date: 08/05/2024	Date: 08/05/2024	Date: 08/05/2024	Date: 08/05/2024	35041

PCB PIEZOTRONICS
AN AMPHENOL COMPANY
Phone: 716-684-0001
Fax: 716-684-0987
E-Mail: info@pcb.com

3425 Walden Avenue, Depew, NY 14043