

Model Number
176M 12

CHARGE OUTPUT PRESSURE SENSOR

Revision: G
ECN #: 54257

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	> 30 kHz	> 30 kHz	
Transverse Resonance	≥ 3,000 Hz	≥ 3,000 Hz	
Frequency Response	1,500 Hz	1,500 Hz	[1][2]
Non-Linearity	≤ 1 % FS	≤ 1 % FS	[3]

Environmental

	ENGLISH	SI	
Acceleration Sensitivity	≤ 0.01 psi/g	≤ .00069 bar/g	
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	[4]
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

	ENGLISH	SI
Output Polarity(Differential)	Differential	Differential
Capacitance(with cable pin - pin)	< 165 pF	< 165 pF
Resistance(Pin-Pin)(Room Temp)	≥ 10 ¹² Ohm	≥ 10 ¹² Ohm
Resistance(Pin-Case)(Room Temp)	≥ 10 ¹² Ohm	≥ 10 ¹² Ohm
Resistance(Pin-Case)(986°F/530°C)	≥ 50 kohm	≥ 50 kohm
Resistance(Pin-Case)(986°F/530°C)	≥ 100 kohm	≥ 100 kohm

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	Overbraided Hardline	Overbraided Hardline
Weight(with cable)	11.1 oz	315 gm

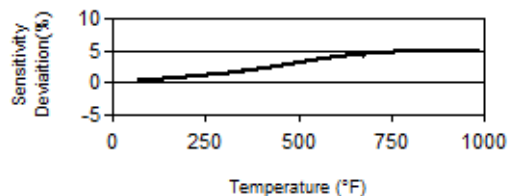
OPTIONAL VERSIONS

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

Typical Sensitivity Deviation vs Temperature



[5]



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: RPF	Sales: DPC	Approved: RPF	Spec Number:
Date: 10/12/2023	Date: 10/12/2023	Date: 10/12/2023	Date: 10/12/2023	41205

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

3425 Walden Avenue, Depew, NY 14043