Model Number 102A44

ICP® PRESSURE SENSOR

Revision: D ECN #: 53508

Performance	ENGLISH	SI	
Measurement Range(for ±5V output)	50 psi	344.8 kPa	
Sensitivity(± 15 %)	100 mV/psi	14.503 mV/kPa	
Maximum Pressure	4 kpsi	27,580 kPa	[1]
Resolution	0.1 mpsi	0.00069 kPa	[2]
Resonant Frequency	≥ 250 kHz	≥ 250 kHz	
Rise Time(Reflected)	≤ 2 µ sec	≤ 2 µ sec	
Low Frequency Response(- 5 %)	0.5 Hz	0.5 Hz	
Non-Linearity	≤ 1.0 % FS	≤ 1.0 % FS	[3]
Environmental			
Acceleration Sensitivity	< 0.002 psi/g	$< 0.0014 \text{ kPa/(m/s}^2)$	
Temperature Range(Operating)	-65 to +250 °F	-54 to +121 ℃	
Temperature Coefficient of Sensitivity	≤ 0.10 %/°F	≤ 0.18 %/°C	
Maximum Flash Temperature	3,000 °F	1,649 ℃	
Maximum Shock	20,000 g pk	196,133 m/s² pk	
Hazardous Area Approval	ATEX	ATEX	[4][5][6]
Hazardous Area Approval	CSA (C-US) NRTL - Canadian	CSA (C-US) NRTL - Canadia	n [7][8][9][10]

Standards Association

Standards Association

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Positive	Positive	
≥ 1.0 sec	≥ 1.0 sec	
20 to 28 VDC	20 to 28 VDC	
2 to 20 mA	2 to 20 mA	
< 100 Ohm	< 100 Ohm	
8 to 14 VDC	8 to 14 VDC	
10 ⁸ Ohm	10 ⁸ Ohm	
Compression	Compression	
Quartz	Quartz	
Stainless Steel	Stainless Steel	
316L Stainless Steel	316L Stainless Steel	[11]
Welded Hermetic	Welded Hermetic	
10-32 Coaxial Jack	10-32 Coaxial Jack	
0.6 oz	17.0 gm	
	≥ 1.0 sec 20 to 28 VDC 2 to 20 mA < 100 Ohm 8 to 14 VDC 10 ⁸ Ohm Compression Quartz Stainless Steel 316L Stainless Steel Welded Hermetic 10-32 Coaxial Jack	≥ 1.0 sec 20 to 28 VDC 2 to 20 mA 2 to 20 mA 2 to 20 mA 2 to 20 mA 2 to 100 Ohm 8 to 14 VDC 10 ⁸ Ohm Compression Quartz Stainless Steel 316L Stainless Steel Welded Hermetic 10-32 Coaxial Jack 20 to 28 VDC 21 to 20 mA 2 t

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] Due to high sensitivity, the static pressure should be applied and removed very slowly. Rate should prevent more than 10 Volt change in output until Output Bias Voltage returns to normal (approximately 15 times discharge time constant).

[2]Typical value.

[3]Zero-based, least-squares, straight line method.

[4]Ex ia IIC T4. [5]Ex nL IIC T4.

[6]Ex nA IIC T4.

[7]AEx ia IIC T4, DIV1 CL1 GR A-D [8]Ex ia IIC T4, DIV1 CL1 GR A-D

[9]AEx nA IIC T4, DIV2 CL1 GR A-D [10]Ex nL IIC T4, DIV2 CL1 GR A-D

[11]Diaphragm with ablative coating.

[12]See PCB Declaration of Conformance PS059 for details.

CE[12]



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: AK	Sales: RWM	Approved: RPF	Spec Number:
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