

Model Number
138A51

ICP® PRESSURE SENSOR

Revision: E
ECN #: 52121

Performance

	ENGLISH	SI	
Measurement Range(for ±5V output)	50,000 psi	344,750 kPa	
Sensitivity(± 15 %)	0.1 mV/psi	0.015 mV/kPa	
Maximum Pressure	50,000 psi	344,750 kPa	
Resolution	1.0 psi	6.9 kPa	[1]
Resonant Frequency	≥ 1,000 kHz	≥ 1,000 kHz	
Rise Time(Reflected)	≤ 1.5 μ sec	≤ 1.5 μ sec	
Low Frequency Response(- 5 %)	1.7 Hz	1.7 Hz	
Non-Linearity	≤ 2.0 % FS	≤ 2.0 % FS	[2]

Environmental

Temperature Range(Operating)	-10 to +100 °F	-23 to +67.8 °C
Maximum Shock	20,000 g pk	196,140 m/s ² pk

Electrical

Output Polarity(Positive Pressure)	Positive	Positive
Discharge Time Constant(at room temp)	≥ 0.3 sec	≥ 0.3 sec
Excitation Voltage	20 to 30 VDC	20 to 30 VDC
Constant Current Excitation	2 to 20 mA	2 to 20 mA
Output Impedance	≤ 100 Ohm	≤ 100 Ohm
Output Bias Voltage	8 to 14 VDC	8 to 14 VDC

Physical

Sensing Element	Tourmaline	Tourmaline
Housing Material	Stainless Steel	Stainless Steel
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack
Weight	0.61 oz	17.0 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.

W - Water Resistant Cable

NOTES:

- [1]Typical.
- [2]Zero-based, least-squares, straight line method.
- [3]See PCB Declaration of Conformance PS022 for details.



Entered: ND	Engineer: RPF	Sales: MV	Approved: BAM	Spec Number:
Date: 10/06/2021	Date: 10/06/2021	Date: 10/06/2021	Date: 10/06/2021	7252

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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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