

Model Number
106B51

ICP® PRESSURE SENSOR

Revision: A
ECN #: 29520

	ENGLISH	SI	
Performance			
Measurement Range(for ±5V output)	5 psi	35 kPa	[1]
Useful Overrange	10 psi	69 kPa	
Sensitivity(± 15 %)	1000 mV/psi	145 mV/kPa	
Maximum Pressure(step)	100 psi	690 kPa	
Maximum Pressure(static)	500 psi	3448 kPa	
Resolution	0.05m psi	.00034 kPa	
Resonant Frequency	≥ 40 kHz	≥ 40 kHz	
Rise Time	≤ 12 μ sec	≤ 12 μ sec	
Low Frequency Response(-5 %)	0.5 Hz	0.5 Hz	
Non-Linearity	≤ 1 % FS	≤ 1 % FS	[2]
Environmental			
Acceleration Sensitivity	≤ 0.002 psi/g	≤ 0.0014 kPa/(m/s ²)	
Temperature Range(Operating)	-65 to +250 °F	-54 to +121 °C	
Temperature Range(Operating)	-65 to +250 °F	-54 to +121 °C	
Temperature Coefficient of Sensitivity	≤ 0.03 %/°F	≤ 0.054 %/°C	
Maximum Flash Temperature	3000 °F	1649 °C	
Maximum Vibration	500 g pk	4903 m/s ² pk	
Maximum Shock	1000 g pk	9807 m/s ² pk	
Electrical			
Output Polarity(Positive Pressure)	Positive	Positive	
Discharge Time Constant(at room temp)	≥ 1 sec	≥ 1 sec	
Excitation Voltage	11 to 30 VDC	11 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	Quartz	Quartz	
Housing Material	17-4 Stainless Steel	17-4 Stainless Steel	
Diaphragm	316L Stainless Steel	316L Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Weight	1.13 oz	32 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.

E - Emralon coating

Coating	Emralon	Emralon
Electrical Isolation	10 ⁸ ohm	10 ⁸ ohm

J - Ground Isolated [4]

N - Negative Output Polarity

W - Water Resistant Cable [5]
Supplied Accessory : Model 060A11 Delrin clamp nut 3/4-16-2A thd 3/4" hex (1)

WM - Water Resistant Cable [5]
Supplied Accessory : Model 060A13 Metric Delrin clamp nut M20 x 1.5-6g thd 20 mm hex (1)

NOTES:

[1] For +10 volt output, minimum 24 VDC supply voltage required. Negative 10 volt output may be limited by output bias.

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

[3] See PCB Declaration of Conformance PS023 for details.

[4] Used with optional mounting adaptor.

[5] Clamp nut installed prior to cable attachment

SUPPLIED ACCESSORIES:

Model 060A11 Delrin clamp nut 3/4-16-2A thd 3/4" hex
Model 060A13 Metric Delrin clamp nut M20 x 1.5-6g thd 20 mm hex (1)
Model 065A36 Seal, .687" OD x .625" ID x .060", Derlin (3)

Entered: BLS	Engineer: NJL	Sales: RWM	Approved: RF	Spec Number:
Date: 10/17/08	Date: 10/2/08	Date: 10/3/08	Date: 10/2/08	23894



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 Group, Inc.

PCB PIEZOTRONICS™
PRESSURE DIVISION
3425 Walden Avenue, Depew, NY 14043

Phone: 716-684-0001
Fax: 716-686-9129
E-Mail: pressure@pcb.com