

Model Number

221B04

## ICP® FORCE SENSOR

Revision: G

ECN #: 30732

**Performance**

	<b>ENGLISH</b>	<b>SI</b>	
Sensitivity(± 15 %)	5 mV/lb	1124.1 mV/kN	
Measurement Range(Compression)	1000 lb	4.448 kN	
Measurement Range(Tension)	1000 lb	4.448 kN	
Maximum Static Force(Compression)	6000 lb	26.69 kN	
Maximum Static Force(Tension)	1200 lb	5.34 kN	
Broadband Resolution(1 to 10,000 Hz)	0.02 lb-rms	0.08896 N-rms	[1]
Low Frequency Response(-5 %)	0.001 Hz	0.001 Hz	[2]
Upper Frequency Limit	15 kHz	15 kHz	[3]
Non-Linearity	≤ 1 % FS	≤ 1 % FS	[4]

**Environmental**

Temperature Range	-65 to +250 °F	-54 to +121 °C	
Temperature Coefficient of Sensitivity	≤ 0.03 %/°F	≤ 0.054 %/°C	

**Electrical**

Discharge Time Constant(at room temp)	≥ 700 sec	≥ 700 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	
Output Polarity(Compression)	Positive	Positive	

**Physical**

Stiffness	2 lb/μin	0.35 kN/μm	[1]
Size (Diameter x Height)	0.65 in x 1.25 in	16.51 mm x 31.75 mm	
Weight	1.1 oz	31 gm	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Hermetic	Hermetic	
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Electrical Connection Position	Side	Side	
Mounting Thread	1/4-28 Female	1/4-28 Female	



[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.

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**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.

J - Ground Isolated

M - Metric Mount

Mounting Thread

M6 x 0.75 Female

N - Negative Output Polarity

Output Polarity(Compression)

Negative

Negative

W - Water Resistant Cable

Electrical Connector

Sealed Cable

Sealed Cable

Electrical Connection Position

Side

Side

**NOTES:**

- [1] Typical.  
[2] Calculated from discharge time constant.  
[3] Estimated using rigid body dynamics calculations.  
[4] Zero-based, least-squares, straight line method.  
[5] See PCB Declaration of Conformance PS023 for details.

**OPTIONAL ACCESSORIES:**

Model 081A06 Mounting stud, 1/4-28 to 1/4-28 x .37 in. long, BeCu, no shoulder (1)

Entered: <u>BLS</u>	Engineer: <u>APB</u>	Sales: <u>KW</u>	Approved: <u>FB</u>	Spec Number:
Date: <u>5/24/09</u>	Date: <u>5/24/09</u>	Date: <u>5/24/09</u>	Date: <u>5/24/09</u>	1240

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