

Model Number

221B03

ICP® FORCE SENSOR

Revision: J

ECN #: 30732

Performance

	ENGLISH	SI	
Sensitivity(± 15 %)	10 mV/lb	2248.2 mV/kN	
Measurement Range(Compression)	500 lb	2.224 kN	
Measurement Range(Tension)	500 lb	2.224 kN	
Maximum Static Force(Compression)	3000 lb	13.34 kN	
Maximum Static Force(Tension)	1000 lb	4.448 kN	
Broadband Resolution(1 to 10,000 Hz)	0.01 lb-rms	0.04448 N-rms	[1]
Low Frequency Response(-5 %)	0.002 Hz	0.002 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)	≥ 400 sec	≥ 400 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	

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

Electrical Connection Position

Sealed Cable
Side

Sealed Cable
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: BLS	Engineer: APB	Sales: KW	Approved: EB	Spec Number:
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[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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