

Model Number 209C02	ICP® FORCE SENSOR	Revision: J ECN #: 45224
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	<u>ENGLISH</u>	<u>SI</u>	
Performance			
Sensitivity(± 15 %)	2200 mV/lb	494,604 mV/kN	
Measurement Range(Compression)	2.2 lb	0.00979 kN	
Maximum Static Force(Compression)	11 lb	0.0489 kN	
Broadband Resolution(1 to 10,000 Hz)	0.00002 lb-rms	0.00009 N-rms	[1]
Low Frequency Response(-5 %)	0.05 Hz	0.05 Hz	[2]
Upper Frequency Limit	100,000 Hz	100,000 Hz	[3]
Environmental			
Temperature Range	-65 to +250 °F	-54 to +121 °C	
Temperature Coefficient of Sensitivity	≤ 0.05 %/°F	≤ 0.09 %/°C	
Electrical			
Discharge Time Constant(at room temp)	≥ 10 sec	≥ 10 sec	
Excitation Voltage	18 to 30 VDC	18 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 12 VDC	8 to 12 VDC	
Spectral Noise(1 Hz)	0.0000123 lb/√Hz	0.0000548 N/√Hz	[1]
Spectral Noise(10 Hz)	0.0000009 lb/√Hz	0.0000042 N/√Hz	[1]
Spectral Noise(100 Hz)	0.0000004 lb/√Hz	0.0000017 N/√Hz	[1]
Spectral Noise(1000 Hz)	0.0000001 lb/√Hz	0.0000003 N/√Hz	[1]
Output Polarity(Compression)	Positive	Positive	
Physical			
Stiffness	2 lb/μin	0.35 kN/μm	[1]
Size (Hex x Height)	0.375 in x 0.610 in	9.53 mm x 15.49 mm	
Weight	0.28 oz	8 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	10-32 Female	No Metric Equivalent	

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.		
M - Metric Mount		
Supplied Accessory : Model M081A05 Mounting Stud 10-32 to M6 x 0.75 x 0.27" long BeCu (H900), no shoulder (1)		
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] See PCB Declaration of Conformance PS023 for details.

SUPPLIED ACCESSORIES:
 Model 081A05 Mounting stud, 10-32 to 10-32 x 0.27" long, BeCu (H900), no shoulder (1)
 Model 084A38 Thermal boot (for Series 209) (1)

Entered: LK	Engineer: MJK	Sales: KWW	Approved: APB	Spec Number:
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^[4]
 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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