



Model Number 209C12		ICP® FORCE SENSOR			Revision: F ECN #: 45224	
Performance		ENGLISH	SI		OPTIONAL VERSIONS	
Sensitivity(± 15 %)		2200 mV/lb	494,604 mV/kN		Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.	
Measurement Range(Compression)		2.2 lb	0.00979 kN		M - Metric Mount	
Measurement Range(Tension)		1.0 lb	0.00445 kN		Supplied Accessory : Model M081A05 Mounting Stud 10-32 to M6 x 0.75 x 0.27" long BeCu (H900), no shoulder (1) replaces Model 081A05	
Maximum Static Force(Compression)		11.0 lb	0.0489 kN		N - Negative Output Polarity	
Maximum Static Force(Tension)		1.0 lb	0.00445 kN		Output Polarity(Compression)	
Broadband Resolution(1 to 10,000 Hz)		0.00002 lb-rms	0.00009 N-rms	[1]	Negative	
Low Frequency Response(-5 %)		0.05 Hz	0.05 Hz	[2]	Negative	
Upper Frequency Limit		30,000 Hz	30,000 Hz	[3]	W - Water Resistant Cable	
Environmental					Electrical Connector	
Temperature Range		-65 to +250 °F	-54 to +121 °C		Electrical Connection Position	
Temperature Coefficient of Sensitivity		≤ 0.05 %/°F	≤ 0.09 %/°C		Sealed Cable Side	
Electrical					Sealed Cable Side	
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]	NOTES:	
Spectral Noise(10 Hz)		0.0000009 lb/√Hz	0.0000042 N/√Hz	[1]	[1]Typical.	
Spectral Noise(100 Hz)		0.0000004 lb/√Hz	0.0000017 N/√Hz	[1]	[2]Calculated from discharge time constant.	
Spectral Noise(1000 Hz)		0.0000001 lb/√Hz	0.0000003 N/√Hz	[1]	[3]Estimated using rigid body dynamics calculations.	
Output Polarity(Compression)		Positive	Positive		[4]See PCB Declaration of Conformance PS023 for details.	
Physical						
Stiffness		2 lb/μin	0.35 kN/μm	[1]		
Size (Hex x Height)		0.372 in x 0.83 in	9.53 mm x 21.08 mm		SUPPLIED ACCESSORIES:	
Weight		0.29 oz	8.2 gm		Model 081A05 Mounting stud, 10-32 to 10-32 x 0.27" long, BeCu (H900), no shoulder (1)	
Housing Material		Stainless Steel	Stainless Steel		Model 084A38 Thermal boot (for Series 209) (1)	
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			
					Entered: LK	
[4]					Engineer: MJK	
All specifications are at room temperature unless otherwise specified.					Sales: KWW	
In the interest of constant product improvement, we reserve the right to change specifications without notice.					Approved: APB	
ICP® is a registered trademark of PCB Group, Inc.					Spec Number:	
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