


Model Number 227C		ICP® FORCE SENSOR		Revision: G ECN #: 33650	
Performance		ENGLISH	SI	OPTIONAL VERSIONS	
Sensitivity(± 15 %)		0.10 mV/lb	22.48 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)		50,000 lb	222.4 kN	J - Ground Isolated	
(Tension)		30,000 lb	133.4 kN	M - Metric Mount	
Maximum Static Force(Compression)		65,000 lb	289 kN	N - Negative Output Polarity	
(Tension)		37,500 lb	166.8 kN	Output Polarity(Compression) Negative Negative	
Broadband Resolution(1 to 10,000 Hz)		1 lb-rms	4.45 N-rms	W - Water Resistant Cable	
Low Frequency Response(-5 %)		0.0003 Hz	0.0003 Hz	Electrical Connector Sealed Cable Sealed Cable	
Upper Frequency Limit		4 kHz	4 kHz	Electrical Connection Position Side Side	
Non-Linearity		≤ 1 % FS	≤ 1 % FS	NOTES:	
Environmental				[1] Typical.	
Temperature Range		-65 to +250 °F	-54 to +121 °C	[2] Calculated from discharge time constant.	
Temperature Coefficient of Sensitivity		≤ 0.03 %/°F	≤ 0.054 %/°C	[3] Estimated using rigid body dynamics calculations.	
Electrical				[4] Zero-based, least-squares, straight line method.	
Discharge Time Constant		≥ 2000 sec	≥ 2000 sec	[5] See PCB Declaration of Conformance PS023 for details.	
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		
Spectral Noise(1 Hz)		0.0871 lb/√Hz	0.389 N/√Hz		
(10 Hz)		0.0292 lb/√Hz	0.130 N/√Hz		
(100 Hz)		0.00792 lb/√Hz	3.54 N/√Hz		
(1 kHz)		0.00240 lb/√Hz	0.0107 N/√Hz		
Output Polarity(Compression)		Positive	Positive		
Physical					
Stiffness		29 lb/μin	5 kN/μm		
Size (Diameter x Height)		2.95 in x 4.25 in	74.93 mm x 107.995 mm		
Weight		83 oz	2353 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 1/4 - 12 Female	1 1/4 - 12 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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				Entered: <i>JH</i> Engineer: <i>N&Z</i> Sales: <i>KW</i> Approved: <i>ECB</i> Spec Number:	
				Date: <i>8-6-10</i> Date: <i>8-4-10</i> Date: <i>8-4-10</i> Date: <i>8-6-10</i> 7405	
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