Model Number	ICP® FORCE SENSOR	Revision: F
207C		ECN #: 22424

Performance	ENGLISH	SI	
Sensitivity (± 15 %)	0.05 mV/lb	11.24 mV/kN	
Measurement Range (Compression)	100,000 lb	444.8 kN	
Maximum Static Force (Compression)	110,000 lb	489.3 kN	
Broadband Resolution (1 to 10,000 Hz)	2.0 lb-rms	8.9 N-rms	[1]
Low Frequency Response (-5 %)	0.0003 Hz	0.0003 Hz	[2]
Upper Frequency Limit	35 kHz	35 kHz	[3]
Non-Linearity	≤ 1 % FS	≤ 1 % FS	[4]
Environmental			
Temperature Range	-65 to +250 °F	-54 to +121 °C	
Temperature Coefficient of Sensitivity	≤ 0.12 %/°F	≤ 0.216 %/°C	
Electrical			
Discharge Time Constant (at room temp)	≥ 2000 sec	≥ 2000 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	
Spectral Noise (1 Hz) (1)	0.0524 lb/√Hz	0.23 N/√Hz	[1]
Spectral Noise (10 Hz) (10)	0.0230 lb/√Hz	0.10 N√Hz	[1]
Spectral Noise (100 Hz) (100)	0.00854 lb/√Hz	0.0381 N/√Hz	[1]
Spectral Noise (1 kHz) (1)	0.00214 lb/√Hz	0.00955 N/√Hz	[1]
Output Polarity (Compression)	Positive	Positive	
Physical			
Preload	33,750 lb	150.13 kN	
Stiffness	131 lb/µin	23 kN/µm	[1]
Size (Diameter x Height x Bolt Diameter x Sensing Surface)	2.950 in x 0.670 in x 1.5 in x 2.660 in	74.9 mm x 17.02 mm x 36 mm x 67.6 mm	
Size (ID) (Hole Diameter)	1.610 in	40 mm	
Size (OD) (Sensor)	2.950 in	74.9 mm	
Weight	11.57 oz	328 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	

CE [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.

M - Metric Mount
Supplied Accessory : Model M081A17 Mounting Stud, M30 x 2.00 x 2.280, BeCu (1) replaces Model 1503A02EZ10PSIG
Supplied Accessory : Model M083B07 Pilot Bushing (1) replaces Model 1503B02FH100PSIA

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.

SUPPLIED ACCESSORIES:

Model 080A82 Assembly Lubricant (1)
Model 081A17 Mounting Stud, 1 1/8-12 x 2.280, BeCu (1)
Model 082B07 Anti-friction washer (for Models 207C and 217B) (1)
Model 083B07 Pilot bushing (for Models 207C and 217B) (1)

Entered: BLS	Engineer: MJC	Sales: JMM	Approved: DAB	Spec Number:
Date: 6/23/05	Date: 6-23-05	Date: 6/23/05	Date: 6/24/05	6834

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