Model Number	ICP® FORCE SENSOR	Revision: H
207C		ECN #: 48681

Performance	ENGLISH	SI	
Sensitivity(± 15 %)	0.05 mV/lb	11.2 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 081A17
Supplied Accessory : Model M083B07 Pilot Bushing (1) replaces Model 083B07

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: LK	Engineer: RPF	Sales: KK	Approved: RPF	Spec Number:
Date: 9/19/2018	Date: 9/19/2018	Date: 9/19/2018	Date: 9/19/2018	6834

PCB PIEZOTRONICS
3425 Walden Avenue, Depew, NY 14043
Phone: 716-684-0001
Fax: 716-684-0987
E-Mail: info@pcb.com