

Model Number 205C	ICP® FORCE SENSOR	Revision: F ECN #: 48681
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	<u>ENGLISH</u>	<u>SI</u>
Performance		
Sensitivity(± 15 %)	0.08 mV/lb	18.0 mV/kN
Measurement Range(Compression)	60,000 lb	266.9 kN
Maximum Static Force(Compression)	70,000 lb	311.4 kN
Broadband Resolution(1 to 10,000 Hz)	1 lb-rms	4.45 N-rms
Low Frequency Response	0.0003 Hz	0.0003 Hz
Upper Frequency Limit	50 kHz	50 kHz
Non-Linearity	≤ 1.5 % FS	≤ 1.5 % FS
Environmental		
Temperature Range	-65 to +250 °F	-54 to +121 °C
Temperature Coefficient of Sensitivity	≤ 0.10 %/°F	≤ 0.18 %/°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)	0.0981 lb/√Hz	0.44 N/√Hz
Spectral Noise(10 Hz)	0.0306 lb/√Hz	0.14 N/√Hz
Spectral Noise(100 Hz)	0.00709 lb/√Hz	0.032 N/√Hz
Spectral Noise(1 kHz)	0.00192 lb/√Hz	0.00857 N/√Hz
Output Polarity(Compression)	Positive	Positive
Physical		
Preload	12,000 lb	53.379 kN
Stiffness	40 lb/μin	7 kN/μm
Size (Diameter x Height x Bolt Diameter x Sensing Surface)	1.580 in x 0.510 in x .75 in x 1.375 in	40.13 mm x 12.95 mm x 20 mm x 34.93 mm
Size (ID)(Hole Diameter)	0.830 in	21.08 mm
Size (OD)(Sensor)	1.580 in	40.13 mm
Weight	2.7 oz	77 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

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 M081A15 Mounting Stud, M16 x 1.50 x 1.650, BeCu (1)		
Supplied Accessory : Model M083B05 Pilot Bushing (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] Zero-based, least-squares, straight line method.
 [5] See PCB Declaration of Conformance PS023 for details.

SUPPLIED ACCESSORIES:
 Model 080A82 Assembly Lubricant (1)
 Model 081A15 Mounting Stud, 5/8-18 x 1.650, BeCu (1)
 Model 082B05 Anti-friction washer (for Models 205B and 215B) (1)
 Model 083B05 Pilot bushing (for Models 205C and 215B) (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	5758



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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