| Model Number | ICP® FORCE SENSOR | Revision: E |
|---|---|---|
| 203B | | ECN #: 18876 |

| Performance | ENGLISH | SI | |
|---|---|---|---|
| Sensitivity (± 15 %) | 0.25 mV/lb | 56.2 mV/kN | |
| Measurement Range (Compression) | 20,000 lb | 88.96 kN | |
| Maximum Static Force (Compression) | 25,000 lb | 111.2 kN | |
| Broadband Resolution (1 to 10,000 Hz) | 0.4 lb-rms | 1.78 N-rms | [1] |
| Low Frequency Response (-5 %) | 0.0003 Hz | 0.0003 Hz | [2] |
| Upper Frequency Limit | 60 kHz | 60 kHz | [3] |
| Non-Linearity | ≤ 1 % FS | ≤ 1 % FS | [4] |
| **Environmental** | | | |
| Temperature Range | -65 to +250 °F | -54 to +121 °C | |
| Temperature Coefficient of Sensitivity | ≤ 0.11 %/°F | ≤ 0.198 %/°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 ohms | ≤ 100 ohms | |
| Output Bias Voltage | 8 to 14 VDC | 8 to 14 VDC | |
| Output Polarity (Compression) | Positive | Positive | |
| **Physical** | | | |
| Preload | 4000 lb | 17.793 kN | |
| Stiffness | 23 lb/µin | 4 kN/µm | [1] |
| Size (Diameter x Height x Bolt Diameter x Sensing Surface) | 1.10 in x 0.430 in x .5 in x 0.888 in | 27.9 mm x 10.9 mm x 12 mm x 22.6 mm | |
| Size (ID) (Hole Diameter) | 0.520 in | 13.2 mm | |
| Size (OD) (Sensor) | 1.10 in | 27.9 mm | |
| Weight | 1.3 oz | 38 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 M081A13 Mounting Stud, M10 x 1.00 x 1.100, BeCu (1)
Supplied Accessory : Model M083B03 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 081A13 Mounting Stud, 3/8-24 x 1.100, BeCu (1)
Model 082B03 Anti-friction washer (for Models 203B and 213B) (1)
Model 083B03 Pilot Bushing (for Models 203B and 213B) (1)

*ICP® Force*

| Entered: YaB | Engineer: YaB | Sales: JJm | Approved: JJM | Spec Number: |
|---|---|---|---|---|
| Date: 12/9/03 | Date: 12/9/03 | Date: 12/9/03 | Date: 12/10/03 | 1144 |

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