Model 2000 Precision Barometric Pressure Transducer

- Transmitter is customized to your specific atmospheric requirements
- Transmitter output is digitally mapped to enhance accuracy at any specific Temperature or Pressure range.
- Multiple Outputs – 4-20mA, 0-5V, 0-10V, RS232, RS485 and USB 2.0

- Accuracies to 0.03% BFSL
- 24.4” to 34.6” HgA range (custom ranges available. See page 2)
- Optional analog temperature outputs
- Optional USB connectivity

DESCRIPTION

Spectre’s Precision Series 2000 Pressure Transducers offer the first available sensors that are manufactured, designed and calibrated to each customer’s specific operating conditions. Each transducer output is digitally mapped to correct for any non-linearities or inaccuracies in the sensor. This digital correction and the inherent advantages of the fused bond sensor provide the most accurate and flexible transducer in the industry.

FEATURES

- Proprietary Fused Bond Sensor
- Accuracy 0.05% to 0.03% BFSL
- RFI/EMI Protection
- Digital Temperature Correction at operating conditions
- Sensor Wetted Material Machined From Solid Stainless Steel Bar Stock (No Welds)
- Unparalleled Long Term Stability

DIMENSIONS

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# Model 2000 Barometric Pressure Transducer

## Ordering Guide – Example 2000-A-(Baro)-D-1-05-EC1

Please inquire for specials or options

<table>
<thead>
<tr>
<th>A</th>
<th>(Baro)</th>
<th>A</th>
<th>05</th>
<th>EC1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Port</td>
<td>Pressure Output</td>
<td>Temp Output</td>
<td>Accuracy</td>
<td>Connector</td>
</tr>
<tr>
<td>A=1/4&quot;MNPT</td>
<td>D=4-20mA</td>
<td>0=None</td>
<td>05=0.05% BFSL</td>
<td>EC1=36° pigtail</td>
</tr>
<tr>
<td>B=SAE-4</td>
<td>E=0-5VDC</td>
<td>1=4-20mA</td>
<td>03=0.03% BFSL</td>
<td>EC2=DIN 43650</td>
</tr>
<tr>
<td>C=other</td>
<td>F=0-10VDC</td>
<td>2=0-5VDC</td>
<td>with mate. Large</td>
<td>DB9=DF9 serial</td>
</tr>
<tr>
<td></td>
<td>G=RS232</td>
<td>3=TC</td>
<td>EC3=Mini DIN</td>
<td>connector</td>
</tr>
<tr>
<td></td>
<td>H=RS485</td>
<td>4=RTD (1000 Ohm)</td>
<td>USB=USB <strong>A</strong>,##</td>
<td>ECX=Other</td>
</tr>
<tr>
<td></td>
<td>X=Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UC=USB (computer powered)***</td>
<td></td>
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</tbody>
</table>

**Optional ranges available from 16° HgA (lower limit) to 35° HgA (upper limit)

***Analog outputs not available with "UC" pressure output

## Performance @ 25°C (77°F)

- **Accuracy:** ±0.05%BFSL (optional 0.03%)
- **Stability (2 year):** ±0.05%FS, typical
- **Over range protection:** 2X Rated Pressure
- **Burst Pressure:** 2.5X Minimum
- **Pressure Cycles:** >50 Million
- **Temperature Range:** -55 to 85°C (-65 to 185°F)
- **Temperature Accuracy:** ±1°F (±1/2°C)

## Electrical Data

- **Excitation:** 14-36Vdc (0-10Vdc),
  9-36Vdc (4-20mA and 0-5Vdc)
- **Option C29 – Maximum 29 Vdc excitation**
- **Comms Output:** Serial RS485, RS232 , USB 2.0
- **Current Consumption:** <25mA
- **Zero Offset:** <±0.2% of FS
- **Span Tolerance:** <±0.2% FS
- **Output load:** > 10K Ohm

## Physical Data

- **Sensor:** Wetted Material 17-4 pH SS (others on request)
- **Pressure Connection:** ½" MNPT (others on request)
- **Electrical Connection:** Cable, DIN, Bendix, Cannon. Others on application

## Environmental Data

- **Temperature**
  - Operating: -40 to 85°C (-40 to 185°F)
  - Storage: -50 to 125°C (-60 to 250°F)

## Environmental Data

- **Thermal Limits**
  - Compensated Range: 0 to 55°C (-32 to 130°F)
  - Temp Comp Zero: <±0.2% FS
  - Temp Comp Span: <±0.2% FS

## Applications

The Model 2000’s precision calibration (digitally mapping the output to the specific application temperature and pressure conditions) make the 2000 the ultimate choice for any high accuracy barometric applications.

Model 2000 / 010307

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