The Mercoid® Series 3100D Smart Pressure Transmitter is a microprocessor-based high performance transmitter, which has flexible pressure calibration, push button configuration, and programmable using HART® Communication. The Series 3100D is capable of being configured for differential pressure or level applications with the zero and span buttons. A field calibrator is not required for configuration. The transmitter software compensates for thermal effects, improving performance. EEPROM stores configuration settings and stores sensor correction coefficients in the event of shutdowns or power loss. The Series 3100D is FM approved for use in hazardous (classified) locations. The 100:1 rangeability allows the smart transmitter to be configured to fit any application.

**FEATURES**
- Configurable using zero/span buttons (no calibrator required)
- Rangeability (100:1)
- High accuracy (±0.075% FSO)
- Automatic sensor temperature compensation
- Fail-mode process function
- Selectable engineering units

**APPLICATIONS**
- Flow measurement
- Level monitoring
- Filter or pump differential pressure
- Critical process monitoring

**SPECIFICATIONS**
- Service: Compatible gases, steam, liquids or vapors.
- Wetted Materials: 316L SS.
- Accuracy: ±0.075% FSO (@20°C).
- Rangeability: 100:1 turn down.
- Stability: ±0.125% FSO/yr.
- Temperature Limits:
  - Process: -40 to 248°F (-40 to 120°C);
  - Ambient: Without LCD: -40 to 185°F (-40 to 85°C);
  - With LCD: -22 to 176°F (-30 to 80°C).
- Pressure Limits: Max. pressure: Range: -14.5 to 2000 psi; Burst pressure: 10000 psi.
- Thermal Effect: ±0.125% span/32°C.
- Power Requirements: 11.8 to 45 VDC.
- Output Signal: 4 to 20 mA / HART® Communication.
- Response Time: 0.12 seconds.
- Damping Time: 0.25 to 60 seconds.
- Loop Resistance: Operation: 0 to 1500 Ohm.
  - HART® Communication: 250 to 500 Ohm.
- Electrical Connection: Two 1/2” female NPT conduit, screw terminal.
- Process Connection: 2” female NPT.
- Display: Optional 5 digit LCD.
- Enclosure Rating: NEMA 4X (IP66) and explosion-proof for Class I, Div I, Groups A, B, C and D.
- Weight: 8.6 lb (3.9 kg).
- Agency Approvals: CE, FM.

<table>
<thead>
<tr>
<th>Model</th>
<th>Calibrated Span (Min. to Max.)</th>
<th>Lower Range Limit</th>
<th>Upper Range Limit</th>
<th>LCD Display</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3100D-2-FM-1-1</td>
<td>0.6 to 30 in w.c.</td>
<td>-30 in w.c.</td>
<td>30 in w.c.</td>
<td>No</td>
<td>$900.00</td>
</tr>
<tr>
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<td>1.5 to 150 in w.c.</td>
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<td>150 in w.c.</td>
<td>No</td>
<td>$900.00</td>
</tr>
<tr>
<td>3100D-4-FM-1-1</td>
<td>7.5 to 750 in w.c.</td>
<td>-750 in w.c.</td>
<td>750 in w.c.</td>
<td>No</td>
<td>$900.00</td>
</tr>
<tr>
<td>3100D-5-FM-1-1</td>
<td>100 psi</td>
<td>-100 psi</td>
<td>100 psi</td>
<td>No</td>
<td>$900.00</td>
</tr>
<tr>
<td>3100D-6-FM-1-1</td>
<td>300 psi</td>
<td>-300 psi</td>
<td>300 psi</td>
<td>No</td>
<td>$900.00</td>
</tr>
<tr>
<td>3100D-2-FM-1-1-LCD</td>
<td>0.6 to 30 in w.c.</td>
<td>-30 in w.c.</td>
<td>30 in w.c.</td>
<td>Yes</td>
<td>$950.00</td>
</tr>
<tr>
<td>3100D-3-FM-1-1-LCD</td>
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<td>$950.00</td>
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<tr>
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<td>-300 psi</td>
<td>300 psi</td>
<td>Yes</td>
<td>$950.00</td>
</tr>
</tbody>
</table>

Consult factory for custom calibration.

**ACCESSORIES**
- A-630, Stainless steel angle type bracket with SS bolts ............... $79.00
- A-631, Stainless steel flat type bracket with SS bolts ............... $79.00
- BBV-1F, Flanged 3-valve block manifold ................................ $158.00
- BBV-22F, Flanged 5-valve block manifold ................................ $237.00
- DevCom2000, HART® Communication Protocol Software .................... $1500.00

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### Differential Pressure Transmitters

#### Ordering Chart

<table>
<thead>
<tr>
<th>Example</th>
<th>Series</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>3100D</td>
<td>3100D Explosion-Proof Differential Pressure Transmitter</td>
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</table>

<table>
<thead>
<tr>
<th>Range</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>add $200.00 (1)</td>
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<tr>
<td>2</td>
<td>add $200.00 (1)</td>
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<tr>
<td>3</td>
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<tr>
<td>4</td>
<td>add $200.00 (1)</td>
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<tr>
<td>5</td>
<td>add $200.00 (1)</td>
</tr>
<tr>
<td>6</td>
<td>add $200.00 (1)</td>
</tr>
</tbody>
</table>

#### Custom Calibration Values

- Primary Units: In H2O, ft, H2O, mm H2O, in Hg, psig, g/cm², kg/cm², MPa, Pa, kPa, bar, mbar, Torr, Atm, mm Hg
- Upper Range Limit: 20 mA value
- Lower Range Limit: 4 mA value
- Output: Linear or square root
- Damping Time: 0 to 60 seconds
- Display Mode: Unit, %, mA, rotate
- Display Units: Primary unit or Engineering unit
- Volumetric Flow Units: US gal/s, US gpm, US gal/hr, US gpd, imp gal/s, imp gpm, imp gal/hr, imp gpd, l/s, l/min, l/hour, ft³/s, ft³/min, ft³/day, m³/s, m³/min, m³/hr, m³/day, normal l/hr, normal m³/hr, standard ft³/min, barrels/s, barrels/min, barrels/hr, barrels/day
- Mass Flow Units: g/s, g/min, g/hr, kg/s, kg/min, kg/hr, kg/day, metric ton/min, metric ton/hr, metric ton/day, lb/s, lb/min, lb/hr, lb/day, short ton/min, short ton/hr, short ton/day, long ton/hr, long ton/day
- Volume Units: gallons, liters, imp gallons, m³, barrels, bushels, yd³, ft³, in³, bbl, metric cubic meter, normal liter, standard cubic foot, hectar liters
- Engr. Upper Range Limit: Engr. upper value
- Engr. Lower Range Limit: Engr. lower value
- Engr. Function: Linear or square root

(1) Items are subject to Schedule B discounts.