The Mercoid® Series 3100 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 3100 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.

Features:
- Configurable using zero/span buttons (no calibrator required)
- Rangeability (100:1)
- High accuracy (±0.075%)
- Rangeability (100:1) turn down.
- Automatic sensor temperature compensation
- Fail-mode process function
- Selectable engineering units
- High performance transmitter, which has flexible pressure calibration, push button configuration, and programmable using HART® Communication.

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% FS (@ 20°C).
Pressure Limits: Max. pressure:
- 2068 kPa
- 690 kPa
- 186.5 kPa
- 37.3 kPa
- 7.5 kPa

Electrical Connection: Two 1/2" female NPT conduit, screw terminal.
Process Connection: 1/4" 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, ATEX option available (consult factory).

Damping Time: 0.25 to 60 seconds.
Loop Resistance:
- 0 to 1500 Ω

HART® Communication: 250 to 500 Ω.

Table 3100D-5-FM-1-1-LCD

<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</td>
<td>6 to 30 in.</td>
<td>-30 in w.c.</td>
<td>-7.5 kPa</td>
<td>No</td>
<td>$935.00</td>
</tr>
<tr>
<td>3100D-3-FM-1-1</td>
<td>1.5 to 150 in. w.c.</td>
<td>-150 in w.c.</td>
<td>-37.3 kPa</td>
<td>No</td>
<td>$935.00</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>-186.5 kPa</td>
<td>No</td>
<td>$935.00</td>
</tr>
<tr>
<td>3100D-5-FM-1-1</td>
<td>1 to 100 psi</td>
<td>-100 psi</td>
<td>-690 kPa</td>
<td>No</td>
<td>$935.00</td>
</tr>
<tr>
<td>3100D-6-FM-1-1</td>
<td>3 to 300 psi</td>
<td>-300 psi</td>
<td>-2068 kPa</td>
<td>Yes</td>
<td>$995.00</td>
</tr>
</tbody>
</table>

Consult factory for custom calibration.

Table 3100MP-2-FM-1-1

<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>3100MP-2-FM-1-1</td>
<td>0.6 to 30 in. w.c.</td>
<td>-30 in w.c.</td>
<td>-7.5 kPa</td>
<td>No</td>
<td>$1600.00</td>
</tr>
<tr>
<td>3100MP-3-FM-1-1</td>
<td>1.5 to 150 in. w.c.</td>
<td>-150 in w.c.</td>
<td>-37.3 kPa</td>
<td>No</td>
<td>$1600.00</td>
</tr>
<tr>
<td>3100MP-4-FM-1-1</td>
<td>7.5 to 750 in. w.c.</td>
<td>-750 in w.c.</td>
<td>-186.5 kPa</td>
<td>No</td>
<td>$1600.00</td>
</tr>
<tr>
<td>3100MP-5-FM-1-1</td>
<td>1 to 100 psi</td>
<td>-100 psi</td>
<td>-690 kPa</td>
<td>No</td>
<td>$1600.00</td>
</tr>
<tr>
<td>3100MP-6-FM-1-1</td>
<td>3 to 300 psi</td>
<td>-300 psi</td>
<td>-2068 kPa</td>
<td>Yes</td>
<td>$1600.00</td>
</tr>
</tbody>
</table>

Consult factory for custom calibration.

HART® is a registered trademark of Hart Communication Foundation.
### Differential Pressure Transmitters

#### Primary Units
- **Upper Range Limit**
- **Lower Range Limit**
- **Output**
- **Display Time**
- **Display Units**
- **Engineering Units**
- **Mass Flow Units**
- **Volume Units**
- **Engr. Upper Range Limit**
- **Engr. Lower Range Limit**
- **Engr. Function**

#### Custom Calibration Values

<table>
<thead>
<tr>
<th>Primary Units</th>
<th>in H2O, ft H2O, mm H2O, in Hg, psig, gal/cm², kg/cm², MPa, Pa, kPa, bar, mbar, Torr, Atm, mm Hg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Range Limit</td>
<td>20 mA value</td>
</tr>
<tr>
<td>Lower Range Limit</td>
<td>4 mA value</td>
</tr>
<tr>
<td>Output</td>
<td>Linear or square root</td>
</tr>
<tr>
<td>Display Time</td>
<td>0 to 60 seconds</td>
</tr>
<tr>
<td>Display Units</td>
<td>Primary unit or Engineering unit</td>
</tr>
</tbody>
</table>

#### Diaphragm Seal Type
- **Diaphragm Seal Type**
- **Diaphragm Material**
- **Fill Fluid**

#### Diaphragm Seal Type
- **Diaphragm Seal Type**
- **Diaphragm Seal Type**
- **Diaphragm Seal Type**
- **Diaphragm Seal Type**
- **Diaphragm Seal Type**
- **Diaphragm Seal Type**
- **Diaphragm Seal Type**

#### Diaphragm Material
- **Diaphragm Material**
- **Diaphragm Material**
- **Diaphragm Material**
- **Diaphragm Material**

#### Fill Fluid
- **Fill Fluid**
- **Fill Fluid**

#### Capillary Length
- **Capillary Length**
- **Capillary Length**

#### Capillary Length
- **Capillary Length**
- **Capillary Length**

#### Options
- **Options**
- **Options**
- **Options**

#### Contact Us

**CONTACT US**

<table>
<thead>
<tr>
<th>U.S.</th>
<th>U.K. (+44) (0)1494-461707</th>
<th>A.U. (+61) (0) 2 4272 2055</th>
<th>China +852-23181007</th>
</tr>
</thead>
</table>

**3100D-2-FM-3-1-LECS21A0SS2-05-10-LCD**

**3100D Explosion-Proof Differential Pressure Transmitter**

**3100MP Multiplanar Explosion-Proof Differential Pressure Transmitter**

**Example**

<table>
<thead>
<tr>
<th>Series</th>
<th>3100D</th>
<th>3100D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Approval</td>
<td>FM</td>
<td>ATEX</td>
</tr>
<tr>
<td>Process Connection</td>
<td>S2</td>
<td>1/4˝ female NPT</td>
</tr>
<tr>
<td>Electrical Connection</td>
<td>S3</td>
<td>Diaphragm seal</td>
</tr>
<tr>
<td>Diaphragm Seal Type</td>
<td>LEC</td>
<td>2 extended diaphragm seals capillary type</td>
</tr>
<tr>
<td>Mounting Flange</td>
<td>S2</td>
<td>2˝ (50 mm) 316L SS</td>
</tr>
<tr>
<td>Mounting Flange Rating</td>
<td>A1</td>
<td>ANSI class 150#</td>
</tr>
<tr>
<td>Extension Length</td>
<td>00</td>
<td>No extension [standard for flush mount]</td>
</tr>
<tr>
<td>Diaphragm Material</td>
<td>S</td>
<td>316L SS diaphragm</td>
</tr>
<tr>
<td>Capillary Length High Side</td>
<td>XX</td>
<td>0 to 20 feet</td>
</tr>
<tr>
<td>Capillary Length Low Side</td>
<td>XX</td>
<td>0 to 20 feet</td>
</tr>
<tr>
<td>Options</td>
<td>LCD</td>
<td>5 digit LCD</td>
</tr>
</tbody>
</table>

**ACCESSORIES**

- A-630, Stainless steel angle type bracket with SS bolts
- A-631, Stainless steel flat type bracket with SS bolts
- BBV-1F, Flanged 3-valve block manifold
- BBV-22F, Flanged 5-valve block manifold
- DevCom2000, HART® Communication Protocol Software