The **Series MS** Magnesense® Differential Pressure Transmitter is an extremely versatile transmitter for monitoring pressure and air velocity. This compact package is loaded with features such as:

**FEATURES/BENEFITS**
- Field selectable English or Metric ranges
- Field upgradeable LCD display
- Adjustable damping of output signal (with optional display)
- Ability to select a square root output for use with pitot tubes and other similar flow sensors
- Filter condition monitoring
- Zone differential pressure monitoring
- Fan velocity measurement
- Duct pressure monitoring
- Building pressure monitoring

Along with these features, the patented magnetic sensing technology provides exceptional long term performance and enables the Magnesense® Differential Pressure Transmitter to be the single solution for your pressure and flow applications.

**APPLICATIONS**
- Building pressure monitoring
- Duct pressure monitoring
- Fan velocity measurement
- Zone differential pressure monitoring
- Filter condition monitoring

**SPECIFICATIONS**

**Service:** Air and non-combustible, compatible gases.

**Wetted Materials:** Consult factory.

**Accuracy:** ±1% for 0.25˝ (50 Pa), 0.5˝ (100 Pa), 2˝ (500 Pa), 5˝ (1250 Pa), 10˝ (2 kPa), 15˝ (3 kPa), 25˝ (5 kPa); ±2% for 0.1˝ (25 Pa), 1˝ (250 Pa) and all bi-directional ranges.

**Stability:** ±1% FS/year.

**Temperature Limits:** 0 to 150°F (-18 to 66°C).

**Pressure Limits:** 1 psi maximum, operation; 10 psi, burst.

**Power Requirements:** 10 to 35 VDC (2-wire); 17 to 36 VDC or isolated 21.6 to 33 VAC (3-wire).

**Output Signals:** 4 to 20 mA (2-wire); 0 to 5 V, 0 to 10 V (3-wire).

**Response Time:** Adjustable 0.5 to 15 sec, time constant. Provides a 95% response time of 1.5 to 45 seconds.

**Zero & Span Adjustments:** Digital push button.

**Loop Resistance:** Current output: 0-1250 Ω max; Voltage output: min. load resistance 1 kΩ.

**Current Consumption:** 40 mA max.

**Display (optional):** 4 digit LCD.

**Electrical Connections:** 4-20 mA, 2-Wire: European style terminal block for 16 to 26 AWG, 0-10 V, 3-Wire: European style terminal block for 16 to 22 AWG.

**Electrical Entry:** 1/2˝ NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable.

**Process Connections:** 3/16˝ (5 mm) ID tubing, Maximum OD 9 mm.

**Enclosure Rating:** NEMA 4X (IP66).

**Mounting Orientation:** Diaphragm in vertical position.

**Weight:** 8.0 oz (230 g).

**Agency Approvals:** CE.

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**ACCESSORIES**

**Model**

**Description**

- **FACE**
  - Field upgradeable LCD

- **-A**
  - Plastic static pressure tip

- **-A**
  - Installer kit. Includes 2 plastic static pressure tips and 7 ft (2.1 m) of PVC tubing

- **-A**
  - 4" straight static pressure tip with flange

- **-A**
  - 303 SS Static Pressure Tip with mounting flange. For 3/16" ID rubber or plastic tubing, 4" insertion depth. Includes mounting screws

- **SCD-P**
  - 100 to 240 VAC/VDC to 24 VDC Power supply

**OPTIONS**

**To order add suffix:**

- **-LCD**
  - Units with display

- **-NIST**
  - NIST traceable calibration certificate

- **-FC**
  - Factory calibration certificate

**Example:**

- **MS-121-LCD**
- **MS-021-NIST**
- **MS-021-FC**

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**MODEL CHART**

<table>
<thead>
<tr>
<th>Model</th>
<th>Output</th>
<th>Selectable Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-121*</td>
<td>4–20 mA</td>
<td>0.1 in, 0.25 in, 0.5 in w.c. (25, 50, 100 Pa)</td>
</tr>
<tr>
<td>MS-321</td>
<td>0–10 V</td>
<td>0.1 in, 0.25 in, 0.5 in w.c. (25, 50, 100 Pa)</td>
</tr>
<tr>
<td>MS-721</td>
<td>0–5 V</td>
<td>0.1 in, 0.25 in, 0.5 in w.c. (25, 50, 100 Pa)</td>
</tr>
<tr>
<td>MS-111*</td>
<td>4–20 mA</td>
<td>1 in, 2 in, 5 in w.c. (250, 500, 1250 Pa)</td>
</tr>
<tr>
<td>MS-311</td>
<td>0–10 V</td>
<td>1 in, 2 in, 5 in w.c. (250, 500, 1250 Pa)</td>
</tr>
<tr>
<td>MS-711</td>
<td>0–5 V</td>
<td>1 in, 2 in, 5 in w.c. (250, 500, 1250 Pa)</td>
</tr>
<tr>
<td>MS-131</td>
<td>4–20 mA</td>
<td>10 in w.c. (2 kPa)</td>
</tr>
<tr>
<td>MS-141</td>
<td>4–20 mA</td>
<td>15 in w.c. (3 kPa)</td>
</tr>
<tr>
<td>MS-151</td>
<td>20 mA</td>
<td>25 in w.c. (5 kPa)</td>
</tr>
<tr>
<td>MS-331</td>
<td>0–10 V</td>
<td>10 in w.c. (2 kPa)</td>
</tr>
<tr>
<td>MS-341</td>
<td>0–10 V</td>
<td>15 in w.c. (3 kPa)</td>
</tr>
<tr>
<td>MS-351</td>
<td>0–10 V</td>
<td>25 in w.c. (5 kPa)</td>
</tr>
<tr>
<td>MS-021</td>
<td>4–20 mA</td>
<td>±0.1 in, 0.25 in, 0.5 in w.c. (±25, 50, 100 Pa)</td>
</tr>
<tr>
<td>MS-221</td>
<td>0–10 V</td>
<td>±0.1 in, 0.25 in, 0.5 in w.c. (±25, 50, 100 Pa)</td>
</tr>
</tbody>
</table>

*Note: For duct mount static pressure probe, change last digit from 1 to 2. Example: MS-122