Paine™ 212-60-080 Series Pressure Transducer
VDC, Differential, +121 °C, Ranges to 5,000 PSID (344 BAR)

The Paine 212-60-080 Differential Series is temperature compensated and a 0–5 VDC output, full line differential pressure sensor.

With two separate sensing elements to measure the pressure at the input ports, each sensor has two strain gage legs. These two sensors are connected to provide a fully balanced bridge. This sensing method provides an accurate output directly proportional to the pressure difference at the two ports.

Featuring built-in electronics to eliminate the need for separate sensors and amplifiers, the Paine 212-60-080 Series is designed for dependable and long-term pressure measurement in a small/light weight (3 oz) manifold style mounting package.
### Potential applications
- Actuator and propulsion controls
- Industrial hydraulic and pneumatic controls
- Automotive test systems
- Vehicle steering control systems
- Fuel pressure monitoring
- Positioning systems
- Robotic hydraulic controls
- Valve pressure control

### Features
- **Thermal zero shift:** ±0.02% of Full Scale (F.S.) per °F maximum
- **Thermal sensitivity shift:** ±0.02% of F.S. per °F maximum
- **Output:** VDC
- **Operating temperature:** –40 to +250 °F (0 to +121 °C)
- **Pressure range:** ±500 to ±5,000 psid (34 to 344 bar)
- **Operating media:** Any compatible with 300 series CRES, Buna-N-Rubber, 2024-T351 AL, and 15-5 PH CRES
- **Pressure fitting:** Manifold mounting per MIL-G-5514, Type II, Class 2. O-rings (2) MS28775-008 are supplied with each transducer.
**Mechanical**

**Pressure range:** Contact factory for additional pressure ranges.

**Table 1. Pressure Table**

<table>
<thead>
<tr>
<th>Standard part number</th>
<th>Pressure range PSID (BAR)</th>
<th>Proof pressure PSID (BAR)</th>
<th>Burst pressure PSID (BAR)</th>
<th>Static error band (BSLM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>212-60-080-01</td>
<td>±500 (34)</td>
<td>±850 (58)</td>
<td>±1,250 (86)</td>
<td>±1.0% F.S.</td>
</tr>
<tr>
<td>212-60-080-02</td>
<td>±1,000 (68)</td>
<td>±1,700 (117)</td>
<td>±2,500 (172)</td>
<td>±0.75% F.S.</td>
</tr>
<tr>
<td>212-60-080-03</td>
<td>±3,000 (103)</td>
<td>±5,100 (351)</td>
<td>±7,500 (517)</td>
<td>±0.5% F.S.</td>
</tr>
<tr>
<td>212-60-080-04</td>
<td>±5,000 (137)</td>
<td>±8,500 (586)</td>
<td>±12,500 (861)</td>
<td>±0.5% F.S.</td>
</tr>
</tbody>
</table>

**Operating media:** Any compatible with 300 series CRES, Buna-N-Rubber, 2024-T351 AL and 15-5 PH CRES.

**Pressure fitting:** Manifold mounting per MIL-G-5514, Type II, Class 2. O-rings (2) MS28775-008 are supplied with each transducer.

**Electrical**

**Excitation:** 10 VDC

**Input resistance:** 350 ± 70 Ω

**Output resistance:** 350 ± 35 Ω

**Electrical connections:** Four pin bayonet locking electrical connector. Mates with MS3116-8-4S. (P/N: 247-99-100-01 sold separately).
Dimensional Drawings

Figure 1. Paine 212-60-080 Series

A. Pressure port manifold mounting per MIL-G-5514
B. Ø.125/.130 through four places

Dimensions are shown in inches.

Connections

<table>
<thead>
<tr>
<th>PIN</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+ Excitation</td>
</tr>
<tr>
<td>2</td>
<td>Output (+ if P1 &gt; P2)</td>
</tr>
<tr>
<td>3</td>
<td>Output return</td>
</tr>
<tr>
<td>4</td>
<td>Excitation return</td>
</tr>
<tr>
<td>5</td>
<td>Do not connect</td>
</tr>
<tr>
<td>6</td>
<td>- Excitation</td>
</tr>
</tbody>
</table>

A. Pressure port manifold mounting per MIL-G-5514
B. Ø.125/.130 through four places