MODEL 111 / 211 / 311

FEATURES:

• Available ranges from 0 to 30” WC thru 0 to 15K PSI (75 MBAR to 1,034 BAR)
• Choice of mV/V, Vdc & 4-20 mA output
• Rugged, welded, stainless steel construction
• High proof pressure
• Economically priced

APPLICATIONS:

• Hydraulic & pneumatic controls
  Die casting
• Rolling & steel mills
• Compression skids
• Irrigation pumps pressure
• Oilfield truck pressures
• Skidded process systems

PRODUCT OVERVIEW:

The Model 111/211/311 from GP:50 is a family of industrial grade pressure transducers. These strain gauge-based sensors are expressly designed to withstand the shock, vibration and pressure spikes common to most hydraulic and pneumatic control systems.

The highly rugged, all-welded stainless steel design of the Model 111/211/311 offers high corrosion resistance, making the sensors an ideal choice for demanding oil & gas, steelworks, rolling mills and process control applications. Units are also available with optional 10X proof pressure for extended worry-free service life within challenging environments.

FIELD OPTIONS:

• Zero and span adjustments
• 80% and 100% shunt calibration
• Alternate connectors and pressure ports
• For Intrinsically Safe and Explosion Proof approvals, see specially designated datasheet for Models 311Z/I/GI/AI and 111/211/311XP
**ELECTRICAL**

- **Excitation Voltage:**
  (Model 111) 3.5 to 15 Vdc
  (Model 211) 9.0 to 36 Vdc
  (Optional outputs may affect excitation)
  (Model 311) 9.0 to 36 Vdc

- **Output Signal:**
  (Model 111)
  0-1 thru 0-2000 PSI: 3.0 mV/V
  (Optional 5 to 10 mV/V)
  >2,000 - 15,000 PSI: from 1.0 to 3 mV/V
  >15K PSI: from 1.0 to 2.5 mV/V
  (Model 211) 0-5 Vdc, 0-10 Vdc (other outputs available)
  (Model 311) 4-20 mA

- **Input Impedance:** (Model 111) 4K to 6K Ω
- **Input Current:** (Model 211) 8 mA nominal
- **Circuit Protection:**
  (Model 211/311) RFI & EMI
  (Model 211/311) Reverse polarity protected
- **Response Time:** <3 ms 10% to 90%
- **Connection:** 36” long PVC Jacketed cable, 4-conductor

---

**REFERENCE SPECIFICATIONS**

**MATERIALS OF CONSTRUCTION**

- **Wetted Parts:**
  ≤1500 PSI 316LSST w/silicone oil fill
  (Fomblin oil available, consult factory)
  >2000 PSI: 17-4 PH SST
  (Inconel available, consult factory)
- **Housing:** 300 series stainless steel

**STATIC ACCURACY**

- **Standard:** ±0.5% FSO
- **Improved:** ±0.2% FSO or ±0.1% FSO
- **Zero Balance and FSO:** ±1% FSO at +70 °F for each

**MECHANICAL**

- **Process Connection:** 1/4” NPT (F)
- **Proof Pressure:** 2X FSO or 22.5K PSI (1,551 BAR), whichever is less
- **Burst Pressure:** 5X FSO or 23K PSI (1,586 BAR), whichever is less, Vacuum 5X FSO in gauge pressure
- **Approximate weight:** 10 oz. (0.3 kg) nominal
  (options may increase weight)

**PRESSURE RANGES**

- 0 to 30” WC thru 0 to 15K PSI (0 to 1,034 BAR)
- PSIG, PSIS, PSIA, PSIV & compound ranges available.

**THERMAL SPECIFICATIONS**

- **Compensated:** 0 °F to +180 °F (-17.7 °C to +82 °C)
- **Operating:** -20 °F to +190 °F (-29 °C to +88 °C)
- **Storage:** -65 °F to +250 °F (-53 °C to +121 °C)

- Effect on Zero/Span: ±1.0% FSO/100 °F
  Improved or expanded temperature compensation available

---

<table>
<thead>
<tr>
<th>PIN OR WIRE COLOR</th>
<th>MODEL 111</th>
<th>MODEL 211</th>
<th>MODEL 311</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A/RED</td>
<td>+EXC</td>
<td>+EXC</td>
<td>+EXC/SIG</td>
</tr>
<tr>
<td>2B/GRN</td>
<td>+SIG</td>
<td>+SIG</td>
<td>N/C</td>
</tr>
<tr>
<td>3C/WHT</td>
<td>-SIG</td>
<td>N/C</td>
<td>N/C</td>
</tr>
<tr>
<td>4D/BLK</td>
<td>-EXC</td>
<td>-EXC/SIG</td>
<td>-EXC/SIG</td>
</tr>
<tr>
<td>5E/BLU</td>
<td>+SHUNT (OPT)</td>
<td>+SHUNT (OPT)</td>
<td>+SHUNT (OPT)</td>
</tr>
<tr>
<td>6F/BRN</td>
<td>-SHUNT (OPT)</td>
<td>-SHUNT (OPT)</td>
<td>-SHUNT (OPT)</td>
</tr>
</tbody>
</table>

**Standard configurations shown. Please consult factory for other options.**

*All specifications are for reference purposes only. In the interests of continuous product improvement, all specifications are subject to change without notice. Please contact GP:50 for assistance with your application.*