M-SPIKE, V-SPike, C-SPIKE

FEATURES:

- 0 to 100 PSI thru 0 to 15K PSI (7 BAR to 1,034 BAR)
- 3X FSO proof pressure or 22.5K (1,551 BAR), whichever is less
- mV/V, Vdc & 4-20 mA outputs
- Ruggedized, welded, stainless steel construction
- Standard accuracy of ±0.20 % FSO

APPLICATIONS:

- Die casting
- Injection molding
- Stamping presses
- Hydraulic test stands
- Compressors and pumps

PRODUCT OVERVIEW:

The Spike Series from GP:50 is a family of pressure transducers, specifically designed to withstand high-amplitude, high-frequency spikes that commonly occur in hydraulic pressure sensing applications. A proprietary sensor design provides increased over pressure protection as high as 10x.

FIELD OPTIONS:

- mV/V, Vdc & 4-20 mA outputs
- Zero & span adjustments
- 80% and 100% shunt calibration
- Alternate connectors & pressure ports
**DIMENSIONAL DRAWING**

All dimensions are in inches (mm)

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**STANDARD WIRING**

<table>
<thead>
<tr>
<th>WIRE</th>
<th>M-SPIKE</th>
<th>V-SPIKE</th>
<th>C-SPIKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/RED</td>
<td>+EXC</td>
<td>+EXC</td>
<td>+EXC/SIG</td>
</tr>
<tr>
<td>2/GRN</td>
<td>+SIG</td>
<td>+SIG</td>
<td>N/C</td>
</tr>
<tr>
<td>3/WHT</td>
<td>-SIG</td>
<td>N/C</td>
<td>N/C</td>
</tr>
<tr>
<td>4/BLK</td>
<td>-EXC</td>
<td>-EXC/SIG</td>
<td>-EXC/SIG</td>
</tr>
<tr>
<td>5/BLU</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
</tr>
<tr>
<td>6/BRN</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
</tr>
<tr>
<td>SHIELD</td>
<td>OPEN</td>
<td>OPEN</td>
<td>OPEN</td>
</tr>
</tbody>
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**REFERENCE SPECIFICATIONS**

**ELECTRICAL**

- **Supply Voltage:**
  - (M-Spike) 3.5 to 15 Vdc excitation
  - (C-Spike & V-Spike) 4-20 mA, 9.0 to 36 Vdc excitation

- **Output Signal:**
  - (M-Spike) 3 mV/V
  - (V-Spike) 0 to 5 Vdc, 0 to 10 Vdc (alternate outputs available)
  - (C-Spike) 4-20 mA, 9.0 to 36 Vdc excitation

- **Load Impedance:**
  - (M-Spike) 50K Ω min. for <0.1% FSO attenuation
  - (C-Spike) 1200 Ω max. at 37 Vdc, 600 Ω at 24 VDC
  - (V-Spike) 2.0 mA max. for <0.1% FSO attenuation

- **Connection:** 36” Long, 24 AWG, 4 conductor PVC jacketed cable.
- **Circuit Protection:** RFI and EMI

- **Input Current:**
  - (V-Spike) 8mA nominal

- **Input Impedance:**
  - (M-Spike) 5,000 Ω nominal, full bridge

- **Output Current:**
  - (V-Spike) 2.0 mA max. for <0.1% FSO attenuation

- **Response Time:** <5 ms 10% to 90%

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**MATERIALS OF CONSTRUCTION**

- **Wetted Parts:** 17-4 PH stainless steel (options available consult factory)
- **Housing:** 316 stainless steel

**STATIC ACCURACY (BFSL) (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)**

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

**MECHANICAL**

- **Process Connection:** 1/4” NPT (F)
- **Proof Pressure:** 3X FSO or 22.5K PSI (1,551 BAR), whichever is less
- **Burst Pressure:** 5X FSO or 23.5K PSI (1,620 BAR), whichever is less
- **Weight:** 10 oz. (0.3 kg) nominal

**PRESSURE RANGES**

- 0 to 100 PSI thru 0 to 15K PSI (0 to 7 BAR thru 0 to 1,034 BAR)

**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

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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.

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