

## SPIKE SERIES PRESSURE TRANSDUCERS

### M-SPIKE, V-SPIKE, C-SPIKE



Model M-Spike, V-Spike, C-Spike Series  
Pressure Transducers

#### 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  $\pm 0.20$  % 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

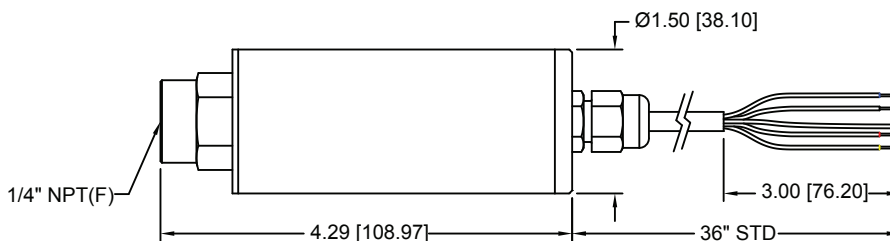
# GP:50 MODEL M-SPIKE, V-SPIKE, C-SPIKE

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)

### STANDARD WIRING

WIRE	M-SPIKE	V-SPIKE	C-SPIKE
1/RED	+EXC	+EXC	+EXC/SIG
2/GRN	+SIG	+SIG	N/C
3/WHT	-SIG	N/C	N/C
4/BLK	-EXC	-EXC/SIG	-EXC/SIG
5/BLU	N/C	N/C	N/C
6/BRN	N/C	N/C	N/C
SHIELD	OPEN	OPEN	OPEN



## REFERENCE SPECIFICATIONS

ELECTRICAL
<ul style="list-style-type: none"> <li><b>Supply Voltage:</b> (M-Spike) 3.5 to 15 Vdc excitation (C-Spike) 4-20 mA , 9.0 to 36 Vdc excitation</li> </ul>
<ul style="list-style-type: none"> <li><b>Output Signal:</b> (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</li> </ul>
<ul style="list-style-type: none"> <li><b>Load Impedance:</b> (M-Spike) 50K <math>\Omega</math> min. for &lt;0.1% FSO attenuation (C-Spike) 1200 <math>\Omega</math> max. at 37 Vdc, 600 <math>\Omega</math> at 24 VDC (V-Spike) 2.0 mA max. for &lt;0.1% FSO attenuation</li> </ul>
<ul style="list-style-type: none"> <li><b>Connection:</b> 36" Long, 24 AWG, 4 conductor PVC jacketed cable.</li> <li><b>Circuit Protection:</b> RFI and EMI</li> </ul>
<ul style="list-style-type: none"> <li><b>Input Current:</b> (V-Spike) 8mA nominal</li> <li><b>Input Impedance:</b> (M-Spike) 5,000 <math>\Omega</math> nominal, full bridge</li> <li><b>Output Current:</b> (V-Spike) 2.0 mA max. for &lt;0.1% FSO attenuation</li> <li><b>Response Time:</b> &lt;5 ms 10% to 90%</li> </ul>

MATERIALS OF CONSTRUCTION
<ul style="list-style-type: none"> <li><b>Wetted Parts:</b> 17-4 PH stainless steel (options available consult factory)</li> <li><b>Housing:</b> 316 stainless steel</li> </ul>
<b>STATIC ACCURACY (BFSL) (HYSTERESIS, NON-LINEARITY &amp; REPEATABILITY @ +70 °F)</b>
<ul style="list-style-type: none"> <li><b>Standard:</b> <math>\pm 0.2\%</math> FSO</li> <li><b>Zero Balance and FSO:</b> <math>\pm 1\%</math> FSO at +70 °F for each</li> </ul>
<b>MECHANICAL</b>
<ul style="list-style-type: none"> <li><b>Process Connection:</b> 1/4" NPT (F)</li> <li><b>Proof Pressure:</b> 3X FSO or 22.5K PSI (1,551 BAR), whichever is less</li> <li><b>Burst Pressure:</b> 5X FSO or 23.5K PSI (1,620 BAR), whichever is less</li> <li><b>Weight:</b> 10 oz. (0.3 kg) nominal</li> </ul>
<b>PRESSURE RANGES</b>
0 to 100 PSI thru 0 to 15K PSI (0 to 7 BAR thru 0 to 1,034 BAR)
<b>THERMAL SPECIFICATIONS</b>
<ul style="list-style-type: none"> <li><b>Compensated:</b> 0 °F to +180 °F (-17.7 °C to +82 °C)</li> <li><b>Operating:</b> -20 °F to +190 °F (-29 °C to +88 °C)</li> <li><b>Storage:</b> -65 °F to +250 °F (-53 °C to +121 °C)</li> <li><b>Effect on Zero/Span:</b> <math>\pm 1.0\%</math> FSO/100 °F</li> </ul>

**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.