

# SPIKE SERIES PRESSURE TRANSDUCERS

# 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  $\pm 0.20 \%$  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.

Model MSPIKE

Serial No.

NY 14072 Pressure Range

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

Pressure Transducers

### **FIELD OPTIONS:**

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



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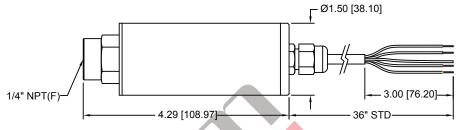
# GP:50 MODEL M-SPIKE, V-SPIKE, C-SPIKE

#### 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**

#### • Supply Voltage:

(M-Spike) 3.5 to 15 Vdc excitation

(C-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  $\Omega$  min. for <0.1% FSO attenuation (C-Spike) 1200  $\Omega$  max. at 37 Vdc, 600  $\Omega$  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  $\Omega$  nominal, full bridge

• Output Current:

(V-Spike) 2.0 mA max. for <0.1% FSO attenuation

• **Response Time**: <5 ms 10% to 90%

#### 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:  $\pm 1\%$  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

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.

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