



## ULTRA HIGH DIFFERENTIAL PRESSURE TRANSMITTER

### MODEL 114 / 214 / 314

#### FEATURES:

- Ranges from 500 to 20K PSID (35 to 1,379 BAR D)
- mV/V, Vdc and 4-20 mA output
- Compact welded, stainless steel construction
- Non-filled strain gauge technology
- Up to 0.20% FSO accuracy
- Intrinsically Safe (4-20 mA output only)

#### APPLICATIONS:

- Pump and compressors
- High pressure valve test
- Hydraulic test stand
- High pressure control systems
- High cyclic applications

#### PRODUCT OVERVIEW:

The Model 114/214/314 from GP:50 is a family of ultra-high range differential pressure transducers. The series offers +0.50% (BFSL) static accuracy over its standard ranges of 500 to 20K PSID (35 to 1,379 BAR D). Improved accuracy is available to +0.20%. Their rugged, compact design incorporates a unique, non-filled strain gauge sensing technology. These attributes allow the Model 114/214/314 to effectively support high-cycle pressure measurement requirements, even in space constrained environments. An all stainless steel construction, without seals or o-rings, provides high-corrosion resistance. Optional intrinsically safe versions are also available for extreme applications.

#### FIELD OPTIONS:

- mV/V, Vdc & 4-20 mA output
- Zero and span adjustment
- 80% and 100% shunt calibration
- Submersible option available
- Alternate connectors and pressure ports
- Intrinsically safe



Model 114 / 214 / 314  
Ultra High Differential Pressure Transducer

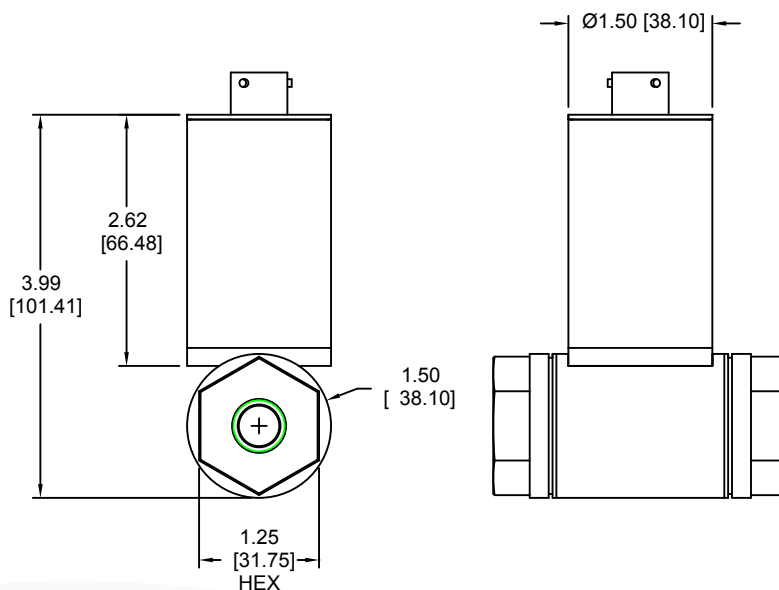
# GP:50 MODEL 114 / 214 / 314

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)

### STANDARD WIRING

PIN	MODEL 114	MODEL 214	MODEL 314
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

<p><b>ELECTRICAL</b></p> <ul style="list-style-type: none"> <li><b>Supply Voltage:</b> (Model 114) 3.5 to 15 Vdc excitation (Model 214) 9.0 to 36 Vdc excitation (0 to 10 Vdc: 13 to 40 Vdc excitation) (Model 314/314Z) 9.0 to 36 Vdc excitation</li> <li><b>Output Signal:</b> (Model 114) 3 mV/V (Model 214) 0 to 5 Vdc, 0 to 10 Vdc (alternate outputs available) (Model 314) 4-20 mA</li> <li><b>Zero Shift with Line Pressure:</b> <math>&lt; \pm 1.0\%</math> FSO/1K PSID</li> <li><b>Circuit Protection:</b> RFI and EMI</li> <li><b>Response Time:</b> <math>&lt; 5</math> ms 10% to 90%</li> <li><b>Connection:</b> 36" long Belden 8723, 22 AWG, 4 conductor cable (or equivalent)</li> </ul>	<p><b>STATIC ACCURACY (BFSL) (HYSTERESIS, NON-LINEARITY &amp; REPEATABILITY @ +70 °F)</b></p> <ul style="list-style-type: none"> <li><b>Standard:</b> <math>\pm 0.5\%</math> FSO (Improved: <math>\pm 0.2\%</math> FSO)</li> <li><b>Zero Balance and FSO:</b> <math>\pm 1\%</math> FSO at +70 °F</li> </ul>
<p><b>MATERIALS OF CONSTRUCTION</b></p> <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>	<p><b>MECHANICAL</b></p> <ul style="list-style-type: none"> <li><b>Process Connection:</b> 1/4" NPT (F)</li> <li><b>Proof Pressure:</b> 5X FSO or 22.5K PSI (1,551 BAR), whichever is less</li> <li><b>Burst Pressure:</b> 10X FSO or 22.5K PSI (1,551 BAR), whichever is less</li> <li><b>Static Line Pressure:</b> 5X differential pressure range or 22,500 psi, whichever is less</li> <li><b>Approximate weight:</b> <math>&lt; 1.5</math> lbs (0.7 kg), some options may affect weight</li> </ul> <p><b>PRESSURE RANGES</b></p> <ul style="list-style-type: none"> <li>500 PSID to 20K PSID (35 BAR D to 1,379 BAR D)</li> </ul> <p><b>THERMAL SPECIFICATIONS</b></p> <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 2.0\%</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.

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Tel: +1.716.773.9300 Fax: +1.716.773.5019 Email: sales@gp50.com Web: www.gp50.com

