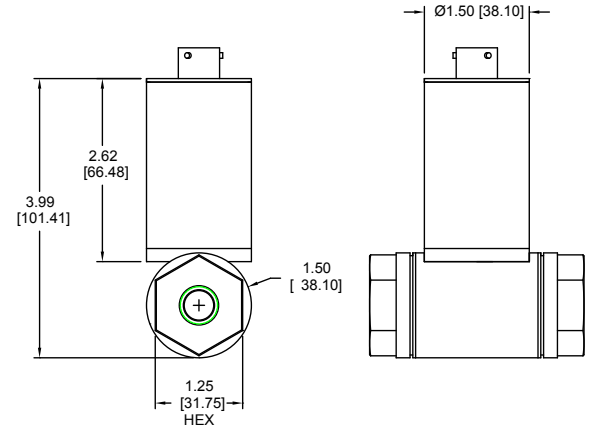


**MODEL 114 / 214 / 314**  
**ULTRA HIGH DIFFERENTIAL PRESSURE TRANSMITTER**



**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



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

**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.

**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

**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

# GP:50 MODEL 114 / 214 / 314

## REFERENCE SPECIFICATIONS

(Standard configurations shown, consult factory for other options)

ELECTRICAL	
Output Signal:	(Model 114) 3 mV/V Amplified Output (Model 214) 0 to 5 Vdc, 0 to 10 Vdc (alternate outputs available) (Model 314) 4-20 mA
Excitation Voltage:	(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
Bridge Resistance:	114: 4K $\Omega$ -6K $\Omega$ (Amplifier on output)
Connection:	36" long Belden 8723, 22 AWG, 4 conductor cable (or equivalent)
Circuit Protection:	(Model 214/214): RFI, EMI & Reverse polarity protected
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

ACCURACY (BFSL): Hysteresis, Non-Linearity & Repeatability @ +70 °F	
Standard:	$\pm 0.5\%$ FSO
Improved:	$\pm 0.2\%$ FSO
Zero & Span Balance:	$\pm 2.0\%$ FSO at +70 °F (Optional Zero & Span Adjust)

MECHANICAL	
Process Connection:	500-15K PSID: 1/4" NPT (F) >15K PSI autoclave F250-C
Proof Pressure:	5X FSO or 22.5K PSI (1,551 BAR), whichever is less
Burst Pressure:	10X FSO or 22.5K PSI (1,551 BAR), whichever is less
Static Line Pressure:	5X differential pressure range or 22,500 PSI, whichever is less
Zero Shift with Line Pressure:	< $\pm 1.0\%$ FSO/1K PSID
Approximate weight:	1 lb (0.45 kg) some options may affect weight

PRESSURE RANGES	
500 PSID to 20K PSID (35 BAR D to 1,379 BAR D)	

THERMAL SPECIFICATIONS	
Operating Range:	-40 °F to +250 °F (-40 °C to +121 °C)
Compensated Range:	0 °F to +180 °F (-17.7 °C to +82 °C)
Storage Ambient:	-65 °F to +250 °F (-53 °C to +121 °C)
Effect on Zero/Span:	$\pm 2.0\%$ FSO/100 °F
Improved or expanded temperature compensation available	

DIFFERENTIAL PRESSURE

