

VIATRAN

PRODUCT BULLETIN NO. 82

Model
Pressure
Transducers

119/219/319



Pressure Ranges: 0-5 thru 0-150" W.C.

Output: See Below

Supply Input Voltages: See Below

The "19" Series is Viatran's standard low range transducer, specifically designed to provide accurate low pressure instrumentation for industrial applications. The single element bonded strain gage sensor eliminates the need for moving parts or intricate assemblies, and assures reliable operation in industrial environments.

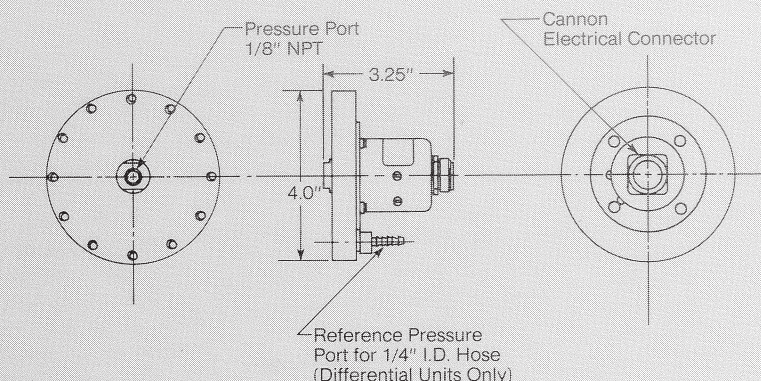
Long term stability has been proven in many diverse applications.

The all stainless steel construction provides excellent corrosion protection. Viatran's unique calibration circuit provides fast, accurate field calibration without a pressure source.

MODEL	OUTPUT	INPUT	TEMPERATURE RANGE	ACCURACY
119	0-5" W.C. 0-10" thru 0-30" W.C. 0-50" & Above	1 mV/V 2 mV/V 3 mV/V	10V DC Regulated 15V DC Max.	-65° to +250°F ±0.25%
219	0-5V DC	12V DC ±2V DC 28V DC (20-32V DC) ±15V DC (±12 To ±18V DC)	-30° to +180°F	±0.25%
319	4-20 mA	24V DC (14 To 30V DC)	-30° to +180°F	±0.25%

9.5 To 36

Dimensions



Specifications

Pressure Ranges	0-5, 10, 15, 20, 25, 30, 50, 100, 150" W.C. gage, vacuum and differential (Wet/Dry)
Measure and Fluids	Any fluids compatible with 17-7 PH, 303 SS and stainless steel for gage pressure. Differential units require a clean dry gas applied to the reference port.
Differential Reference	100 PSI maximum, unidirectional only. Dry non-corrosive gas must be used for reference pressure.
Linearity: (Best Fit Straight Line)	Less $\pm 0.25\%$ FSO
Repeatability:	Within $\pm 0.10\%$ FSO
Resolution	Infinite
Zero Balance	119 within $\pm 2\%$ FSO @ 70°F, 219 & 319 N/A
Full Scale Output	See Front Chart (Min. Values Listed)
Bridge Resistance	119, 350 ohm 219 & 319 N/A
Excitation Voltage	See Front Chart
Insulation Resistance	Greater than 1000 megohms at 50V DC and 70°F
Operating Temperature Range	See Front Chart
Compensated Temperature Range	-30°F to 180°F
Storage Temperature Limits	-100°F to 275°F
Temperature Effects on Accuracy	Model 119 & 219 Zero; Less than $\pm 2\%$ FSO per 100°F Span; Less than $\pm 1\%$ FSO per 100°F Model 319 Zero; Less than $\pm 1.5\%$ FSO per 100°F Span; Less than $\pm 1.5\%$ FSO per 100°F

Range Calibration Signal	80% FSO by applying a specified resistance across Pins 2 & 4 of the connector.
Model 119	
Model 219	80% FSO by shorting Pins 5 & 6 of the connector.
Model 319	100% FSO by shorting Pins 3 & 4 of the connector.
Proof Pressure	1.5 times rated range
Burst Pressure	5 times rated range
Frequency Response	5 Hz (nominal) for 0-5" W.C. range extending up to 125 Hz (nominal) for 0-150" W.C. range
Response Time	Less than 5 milliseconds to reach 90% of final output value
Pressure Connection	$\frac{1}{8}$ " NPT female
Differential Reference Connection	$\frac{1}{4}$ " I.D. hose
Electrical Receptacle	119 & 319 Cannon type WK4-32S, 219 WK6-32S M1 provides alternate connectors
Enclosure	High quality stainless steel. All electrical components are protected.
Mounting	May be supported by process piping or supplied with optional mounting bracket A1.
Identification	Model number, serial number, pressure range, maximum excitation voltage, proof pressure and manufacturer's name are provided on stainless steel nameplate welded to the transducer body
Weight	39 ounces, nominal

Ordering: Specify model, pressure range and indicate modifications or accessories required. Refer to Catalog No. 88 for details.



CORPORATION

38 FORGE PARKWAY • FRANKLIN, MA 02038

TEL: 716-629-3800 • TOLL FREE: 800-688-0030 • FAX: 716