



FEATURES

- Wet/Wet ΔP pressures from 5" W.C. to 100 PSID
- Fast response option
- 1000 PSI overpressure
- Shunt calibration circuit

TYPICAL APPLICATIONS

- Leak testing
- Flow measurement
- Engine test stands
- Research
- High speed testing



Viatran's "74" Series differential pressure transmitters are extremely accurate and durable units, designed specifically for test applications. The variable capacitance sensing technology provides extremely high overpressure protection, and long range stability, as well as high accuracy of 0.15% BFSL.

The "74" Series measures pressure ranges from 5" W.C. to 100 PSID. Model 274 provides a 0-5 VDC signal, while Model 374 offers a 4-20 mA signal compatible with two wire current loops.

All wetted surfaces, including flanges and diaphragms, are constructed of 316 stainless steel with a sealing Viton® O-Ring for excellent corrosion resistance. A standard 1,000 PSI static line pressure and single side overpressure rating are featured with these transmitters. For applications that require a higher static line pressure rating, 3,000 PSI is available with optional flanges.

Models 274 and 374 feature an internal calibration circuit for easy field set-up, a quick disconnect electrical connection and external zero and span controls. A special option called fast response enables the unit to accurately respond to changes in pressure in approximately one tenth of the standard time. These features make Viatran's Models 274 and 374 ideal for most industrial test and flow applications.

Viatran offers a complete family of high accuracy transmitters. For low range gauge pressure measurement, Models 244/344 utilize the same technology as Models 274 and 374 for superior performance. For mid to high range gauge & absolute pressures, Model Series "45" & "49" offer small size & high accuracy to pressures of 100,000 PSI. When your application requires precise measurements, you can depend on Viatran's transmitters for high quality results.

Viatran's vision is to be your fastest, easiest and most trusted solution.

Call us today to explore the solutions we have to offer.

1.800.688.0030

Model 274/374

PERFORMANCE

Full Scale Pressure Range (FSPR)	0-5, 10, 20, 50, 100, 300, 750" W.C.D. 0-15, 50, 100 PSID
Non-Linearity (Best Fit Straight Line).....	≤ ±0.15% FSO
Hysteresis.....	≤ ±0.1% FSO
Repeatability.....	≤ ±0.1% FSO
Full Scale Output (FSO)	Model 274: 5 VDC, 10 VDC Model 374: 16 mA
Resolution.....	Infinite
Long Term Stability.....	≤ ±0.5% FSO per 6 months
Zero Shift w/Line Pressure (%FSO/1000 PSI) 5" WC to 100" WC.....	≤ 4%
Zero Shift w/Line Pressure (%FSO/1000 PSI) 300" WC to 100 PSI.....	≤ 6%
Span Shift w/Line Pressure (%FSO/1000 PSI) 5" WC to 100" WC.....	0 to -6%
Span Shift w/Line Pressure (%FSO/1000 PSI) 300" WC to 100 PSI.....	0 to -4%
Zero Shift After 1000 PSI Overload.....	Single Side: ≤ ±0.1% FSO Alternate Sides: ≤ ±0.5% FSO
Compensated Temperature Range.....	70° F to +170° F
Operating & Storage Temperature Range: 5"WC to 50"WC.....	0° F to +170° F
Operating & Storage Temperature Range: 100"WC to 100 PSI	-40° F to +170° F
Temperature Effect on Zero.....	± 2.0% FSO per 100° F
Temperature Effect on Span.....	± 2.0% FSO per 100° F

ELECTRICAL

Supply Voltage.....	9 to 30 VDC
Power Supply Regulation.....	≤ ±0.005% FSO per Volt change over the supply voltage range
Output Signal.....	Model 274: 0 to 5 VDC, 0 to 10 VDC, Model 374: 4 to 20 mA
Output Loading- Model 274	3000 Ohms minimum
Load Impedance- Model 374	0 Ohms at 9 VDC, 1000 Ohms maximum at 30 VDC
Current Draw- Model 274	5.0 mA
Zero & Span Adjustment.....	Model 274 ±10% FSO min./ ±20% FSO max. Model 374 ±5% FSO min./ ±50% FSO max.
Calibration Signal.....	80% of the FSPR, by shorting pins - see Electrical Connections
Calibration Signal Accuracy.....	≤ ±0.5% of the stated value at 70°F
Circuit Protection.....	Reverse polarity protected
Insulation Resistance.....	>1000 MegOhms to case ground at 50 VDC and 70° F
Response Time.....	See graph below
Electrical Connections.....	Bendix PT02E-10-6P, mates with PT06E-10-6S (SR)

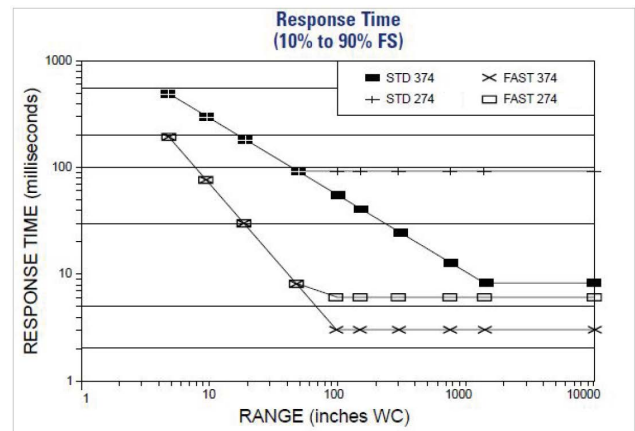
Electrical Connections

Model 274

Pin A	+Power
Pin B	-Power
Pin C	+Signal
Pin D	-Signal
Pin E	Calibrate
Pin F	Calibrate

Model 374

Pin A	+Signal
Pin B	-Signal
Pin C	Calibrate
Pin D	Calibrate
Pin E	N/C
Pin F	N/C



Model 274/374

MECHANICAL

Pressure Connections.....	1/4" NPT Female
Static Pressure.....	1000 PSI maximum (3000 PSI - optional)
Proof Pressure.....	1000 PSI single sided (3000 PSI - optional)
Burst Pressure.....	1500 PSI (4500 PSI - Optional)
Diaphragm Displacement.....	0.002 cubic inches at FSPR
Pressure Cavity Volume.....	Standard Flanges: 0.4 cubic inches Optional Process Flanges: 1.5 cubic inches
Fill Fluid	Dow DC200 Silicone oil
Mounting.....	May be supported by process piping or by optional bracket

MATERIALS OF CONSTRUCTION

Housing.....	300 Series SST
Wetted Parts.....	316 stainless steel and Viton® O-Ring
Weight.....	3.5 lbs. (6.5 lbs. with optional flanges)

OPTIONS

Codes	Description
B()	Alternate electrical connector
DG	Improved temperature performance
DH	Special ranging
DK	Special calibration setting
DM	Modified full scale output (FSO)
DQ	Cleaning for Oxygen service
EA	Calibration run at specified temperature
FA	Russian Metrology Certificate (Model 374 only)
GE	Buna 'N' O-Rings
NB	Alternate process flanges for increased pressure rating Fast response time
NF	response time
NH	Customer specified laser marking
NM	Millivolt/volt output
Y()	Alternate pressure ports

ACCESSORIES

- Digital Indicator
- Mating Electrical Cable Assembly
- Mounting Bracket

Note:
Application of some available options may affect standard performance. Consult your Viatran representative for details.

DIMENSIONAL DATA

ALL DIMENSIONS ARE NOMINAL, IN INCHES AND FOR REFERENCE PURPOSES ONLY

