

Pressure Transmitter

Model #276/376

Low Range Differential Pressure

Features

- Extremely small size
- High overpressure protection
- External adjustments
- All 316 stainless steel wetted surfaces
- Internal calibration circuit
- Fast response

Typical Applications

- Automotive and Aerospace test stands
- Production test stands
- Leak testing
- Laboratory / Research
- Shipboard / Marine
- Energy management



Viatran's "76" Series is a small size, low range differential pressure transmitter that is extremely accurate. Measuring 3.75" in height and 2.25" in width, this unit is one of the smallest wet/wet differential pressure transmitters available.

The "76" Series measures pressures from 0 to 2.5" WCD to 125 PSID. To accommodate vigorous test applications, a static line pressure rating and overpressure of 500 PSI is standard. Model 276 has a 0 to 5 VDC signal, and the 376 offers a 4 to 20 mA output. With a response time as low as 6 milliseconds (depending on range) the "76" Series is one of the fastest differential units on the market.

Viatran's capacitance sensing technology ensures long term stability and provides an accuracy of better than $\pm 0.15\%$ FSO. All wetted surfaces are manufactured from 316 stainless steel for excellent corrosion resistance.

Viatran designed the "76" Series to be easily accessible in confined spaces. The 276/376 is supported by the process connection or by an adaptable L-shaped mounting bracket (see diagram on back side). Also, a quick disconnect electrical connection allows for easy set-up and removal.

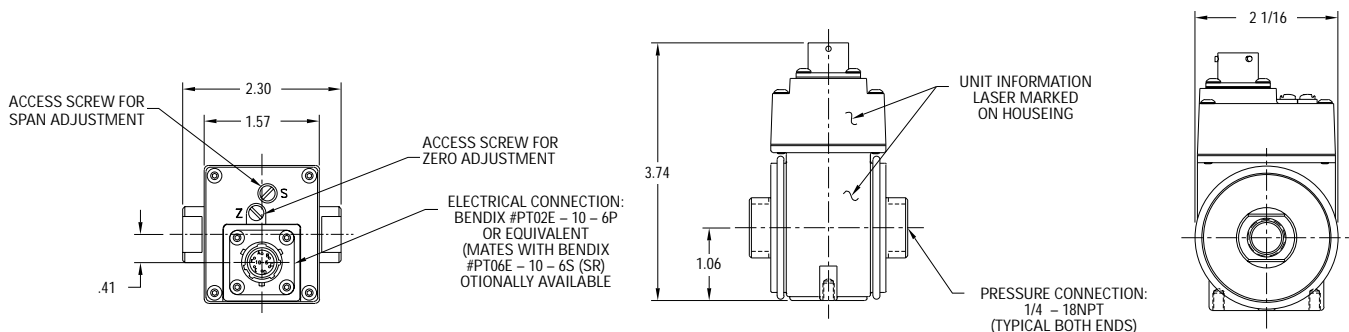
Top-mounted zero and span adjustments and an internal calibration circuit simplify field set-up and provide a quick two-point calibration check.

Many mechanical and performance options on the "76" Series are available to meet specific application needs. With over twenty different electrical connections and pressure ports, as well as options such as improved temperature performance and modified outputs, the 276/376 exceeds the most demanding application requirements.

Dimensions - Model 276/376

NOTE:

1. ALL DIMENSIONS ARE NOMINAL IN INCHES AND FOR REFERENCE PURPOSES ONLY



Viatran Model 276/376 Specifications

Performance

Full Scale Pressure Range (FSPR)	0 - 5, 10, 20, 50, 100, 300, 750" WCD 0 - 15, 50, 100 PSID
Linearity, Best Fit	≤ 0.15% FSO
Hysteresis	≤ 0.10% FSO
Repeatability	≤ 0.10% FSO
Full Scale Output (FSO)	
Model 276	5 VDC
Model 376	16 mA
Resolution	Infinite
Response Time	See Graph
Drift	≤ ±0.2% FSO per 6 months
Thermal Zero Shift	≤ ±2.0% FSO per 100°F
Thermal Sensitivity Shift	≤ ±2.0% FSO per 100°F
Compensated Temperature Range	0° F to +200°F
Operating Temperature Range	-40° F to +185° F

Electrical

Supply Voltage	10 to 45 VDC
Power Supply Regulation	≤ ±0.10% FSO change over supply voltage range
Output Signal	
276	0 to 5 VDC
376	4-20 mA
Zero and Span Adjustment	±10% FSO min, ±20% FSO max
Calibration Signal	80% FSO
Calibration Signal Accuracy	Within ±0.2% FSO
Circuit Protection	Reverse polarity protected
Insulation Resistance	200 MegOhms
Standard Electrical Connection	Bendix PT02E-10-6P

Model 276

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

Model 376

+ Signal
- Signal
Cal
Cal
Open
Open

Mechanical

Pressure Connection	1/4" NPT Female
Line Pressure	500 PSI
Proof Pressure	500 PSI
Burst Pressure	1000 PSI
Pressure Cavity Volume	Approximately 2mL each side
Volume Displacement at FSPR	~0.1mL
Fill Fluid	~1.5mL
Mounting Position Effect	<1" WC, any direction
Mounting	May be supported by process or optional mounting bracket. See diagram below.
Materials of Construction	
Wetted Materials	316 SST
Housing	Powder coated cast alloy, Nickel plated zinc connector
Weight	2 lbs.
Identification	Laser etched onto body.

Options

Codes

B()	Alternate connectors
Y()	Alternate ports

Codes

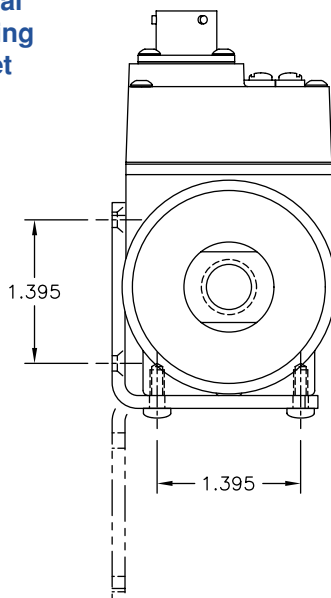
	Performance Options
DG	Improved temperature performance
DH	Special range
DK	Special calibration shunt setting
DM	Modified output
EA	Special calibration run
NH	Customer specified identification
PW	1/8 DIN digital indicator

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

Accessories

Mounting Bracket
Mating Electrical Cable Assembly
Digital Indicator
Mating Connector

Optional Mounting Bracket



Response Time (10-90% FSO)

276/ 376

