

DIFFERENTIAL PRESSURE TRANSMITTER

Models 276 / 376



FEATURES

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

TYPICAL APPLICATIONS

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

DESIGNED FOR HARSH CONDITIONS

To accommodate vigorous test applications, the X76 has a static line pressure rating and standard overpressure of 500 PSI (34 bar). 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.

CAPACITANCE SENSING

Viatran's proprietary technology provides an accuracy of better than $\pm 0.15\%$ FSO. Wetted surfaces are manufactured from 316 stainless steel allowing for better corrosion resistance.

Viatran designed the “76” Series to be easily accessible in confined spaces. The X76 is supported by the process connection or by an adaptable L-shaped mounting bracket.

QUICK ELECTRICAL DISCONNECT

A quick disconnect electrical connection allows for easy setup and removal. Top-mounted zero and span adjustments and an internal calibration circuit simplify field setup and provide a quick two-point calibration check.

EXCEEDS MOST REQUIREMENTS

With over twenty different electrical connections and pressure ports, as well as optional improved temperature performance and modified outputs, the 276 / 376 exceeds the most demanding application requirements.

Viatran offers a full line of pressure transmitters for industrial test applications.

PERFORMANCE

	Full Scale Pressure Range (FSPR)	0-5, 10, 20, 50, 100, 300, 750" WCD0-15, 50, 100 PSID (0-1, 3.4, 6.8 bar)
	Linearity, Best Fit	≤0.15% FSO
	Hysteresis	≤0.10% FSO
	Repeatability.....	≤0.10% FSO
Full Scale Output (FSO)	276	5 Vdc
	376	16 mA
	Resolution	Infinite
	Drift	≤±0.2% FSO per 6 months
	Pressure Connection Effect Zero Balance	≤±1% FSO
Response time	Thermal Shift.....	≤±2% FSO per 100°F (37°C)
	Thermal Sensitivity Shift	≤±2% FSO per 100°F (37°C)
	Compensated Temperature Range	0°F to 200°F (-17°C to 85°C)
	Operating Temperature Range	-40°F to 185°F (-40°C to 121°C)

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 to 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 Electric Connection	Bendix PT02E-10-6P
	276	376
Pin A	+Power	+Power/Signal
Pin B	-Power	-Power/Signal
Pin C	+Signal	Calibrate
Pin D	-Signal	Calibrate
Pin E	Calibrate	Open
Pin F	Calibrate	Open

MECHANICAL

Pressure Connection.....	1/4" NPT female
Line Pressure	500 PSI (34 bar)
Proof Pressure.....	500 PSI (34 bar)
Burst Pressure.....	1000 PSI (68.9 bar)
Pressure Cavity Volume.....	Approximately 2 mL each side
Volume Displacement at FSPR.....	Approximately 0.1 mL
Fill Fluid	Approximately 1.5 mL
Mounting Position Effect.....	<1" WC, any direction
Mounting.....	May be supported by process or optional mounting bracket
Weight	2 lbs

MATERIALS OF CONSTRUCTION

Wetted Materials	316 SS
Housing	Powder coated cast alloy
Identification.....	Laser etched onto body

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OPTIONS

Codes	B()	Alternate connectors
	Y()	Alternate ports
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

- Digital indicator
- Mating electrical assembly
- Mating electrical connector
- Protective cover

