

PRESSURE TRANSMITTER

Models 24A / 34A



FEATURES

- Many options available
- Small size and weight
- High accuracy options
- All stainless steel construction
- 3 to 5000 PSI (0.2 to 345 bar)
- Shunt calibration circuit
- Zero adjustment

TYPICAL APPLICATIONS

- Engine test stands
- Turbine-rocket
- Diesel-internal combustion
- Emission testing
- Production test stands
- Transmission testing
- Off road vehicles
- Compressors and pumps
- Stamping Presses
- Rolling mills
- Die casting
- Hydraulic usage

STATE-OF-THE-ART DESIGN DELIVERS NEEDED ACCURACY

Viatran's 24A and 34A are our most versatile pressure transducers for industrial applications. The 24A / 34A measures from 3 PSI to 5000 PSI (0.2 to 345 bar) with standard linearity of $\leq \pm 0.25\%$ FSO. Improved linearity of $\pm 0.15\%$ or $\pm 0.10\%$ FSO are available as options.

INTERNAL SHUNT CALIBRATION

Also included is an internal calibration signal circuit. This feature allows calibration of the transmitter without an external pressure source and minimizes the need to send the transmitter to a metrology lab.

The external zero adjustment control is standard and makes setup simple.

CIRCUIT PROTECTION

To maintain excellent performance and ensure immunity in electrically noisy environments, both mechanical and electrical designs are optimized for EMI handling. Sample devices were extensively tested in a simulated environment allowing for the development of a more reliable and robust product.

For more information, contact Viatran.

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PERFORMANCE

	Full Scale Pressure Range	0-3 thru 5000 PSIG (PSIS FOR >500 PSI) (0.2 thru 345 bar) 0-15 thru 0-5000 PSIA (0-1.0 thru 0-345 bar) 0-15 PSIV (0-1.03 BarV)
	Nonlinearity (Best Fit Straight Line)	≤±0.25% FSO
	Hysteresis & Repeatability	≤±0.10% FSO each
Full Scale Output (FSO)	Model 24A	5 Vdc at 70°F (21°C) ≤±0.10% FSO standard
	Model 34A	16 mA at 70°F (21°C) ≤±0.10% FSO
	Resolution	Infinite
	Long Term Stability	≤±0.3% FSO per 6 months
Temperature Shift	Compensated Temperature	70°F to 170°F (21°C to 77°C)
	Operating Temperature	-40°F to 250°F (-40°C to 121°C) - process -40°F to 185°F (-40°C to 85°C) - ambient
	Storage Temperature Limits	-40°F to 250°F (-40°C to 121°C)
	Temperature Effect on Zero	≤±2.0% FSO per 100°F
	Temperature Effect on Span	≤±2.0% FSO per 100°F

ELECTRICAL

Supply Voltage	Model 24A	8 to 30 Vdc at 3.5 mA nominal, 5 mA max (12 to 30 Vdc for 10 Vdc output option)
	Model 34A	8 to 30 Vdc
Output Signal	Power Supply Regulation	≤±0.01% FSO per volt change over the supply voltage range
	Model 24A	0 - 5 Vdc standard (see options)
	Model 34A	4 to 20 mA
Load Resistance	Model 24A	100K Ohms min
	Model 34A	1050 Ohms max at 30 Vdc
	Zero Adjustment	±5% FSO min
	Calibration Signal	80% of FSPR, by shorting calibration pins
	Calibration Signal Accuracy	≤±0.1% of the stated value
	Circuit Protection	Reverse polarity protected. Output may be short circuited indefinitely. Over voltage protection to 1000 volts according to EN61000-4-5
	Insulation Resistance	≥200 MegOhms to case ground
	Response Time	<2 mSec to reach 90% of full scale
	RFI/EMI Suppression	CE EMC compliant per IEC EN 61326. CE marked.
	Electrical Connection	Bendix PT02E-10-6P, mates PT06E-10-6S (SR)

Model 24A

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

Model 34A

	+Power/Signal
	-Power/Signal
	Calibrate
	Calibrate
	No connection
	No connection

MATERIALS OF CONSTRUCTION

Wetted Parts	316 stainless steel
Housing	304 SS with a Cadmium plated electrical connector
Weight	10 oz (283 g)
Identification	Pressure sensitive label

ACCESSORIES

- Direct Mount Digital Indicator/Power Supply
- Mating Electrical Assembly
- Ruggedized Connectors & Cable Assemblies

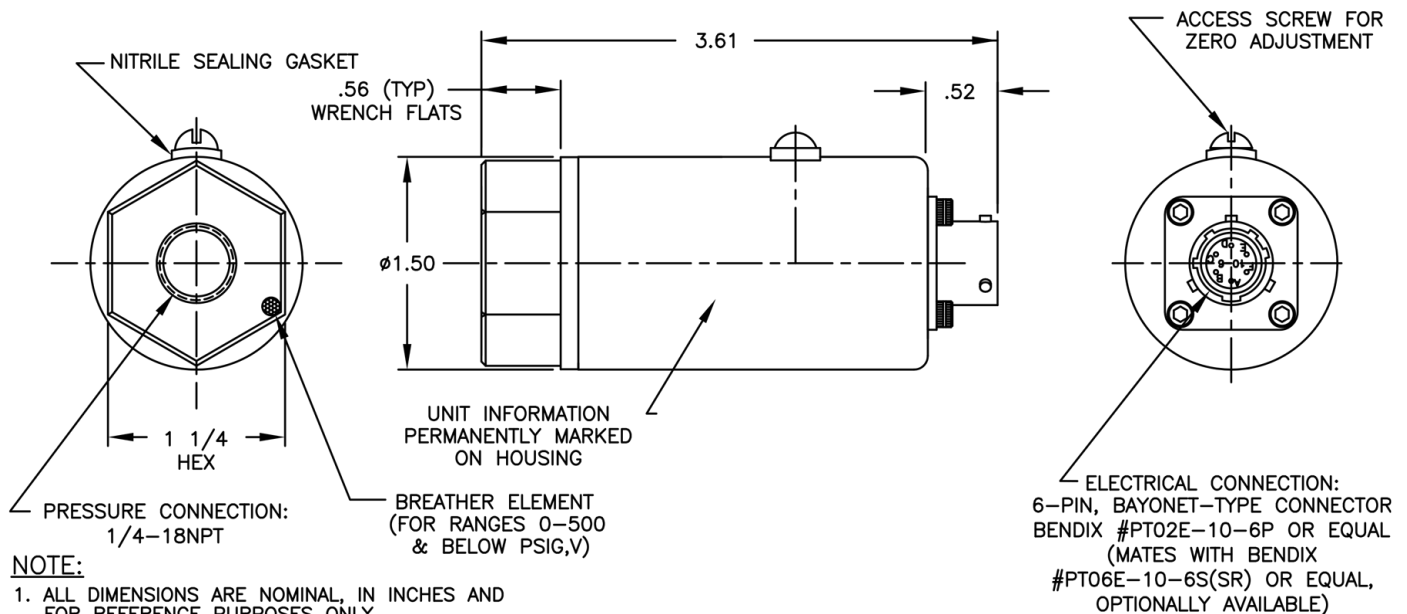


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MECHANICAL	Pressure Connection	Pressure Connection.....	1/4" - 18 NPT female
	Proof Pressure	≤500 PSI (35 bar).....	3 times range or 1,200 PSI (80 bar) max
		>500 PSI (35 bar).....	3 times range or 10,000 PSI (700 bar) max
	Burst Pressure	≤500 PSI (35 bar).....	5 times range or 2,400 PSI (170 bar) max
		>500 PSI (35 bar).....	5 times range or 10,000 PSI (700 bar) max
Pressure Cavity Volume	≤500 PSI (35 bar).....	1.5 ml	
	>500 PSI (35 bar).....	TBD	
	Mounting.....	May be supported by process piping	

OPTIONS	BF.....	(K)PTIH-10-6P
	BG.....	DIN 43650
	BL.....	WK6-32S
	BN.....	(K)PTIH-8-4P
	BQ.....	(K)PTO2H-10-6P
	BR.....	CF3102E-14S-6P
	DC.....	Extended Cold temperature operation (-40°F to 170°F)
	DG.....	Improved temperature compensation(≤ ±.0%FSO per 100°F zero and span shift)
	DH.....	Special ranging
	DK.....	Special calibration setting
	DM.....	Modified full scale output
	DN.....	Improved linearity (±0.15% FSO)
	DQ.....	Cleaning for oxygen service
	EA.....	Special calibration run
	ED.....	Extra improved linearity (±0.10% FSO)
	EH.....	Extended Hot temperature operation (70°F to 185°F)
	LR.....	Permanent Laser Mark
	LV.....	Externally powered, Optically Isolated Shunt Cal
	NH.....	Customer specified identification
	PW.....	1/8 DIN digital indicator
TH.....	External Zero and Span Adjustments	
TW.....	GOST-R approval	
Y().....	Multiple pressure ports available. Consult factory	
ZU.....	Direct cable (175°F Max Temp) (79°C)	

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



NOTE:

1. ALL DIMENSIONS ARE NOMINAL, IN INCHES AND FOR REFERENCE PURPOSES ONLY.
2. STANDARD PRESSURE CAVITY MATERIAL: 316L SST

Information is accurate to the best of Viatran's knowledge. We reserve the right to change specifications at any time. Please contact Viatran for specific order inquiries.

