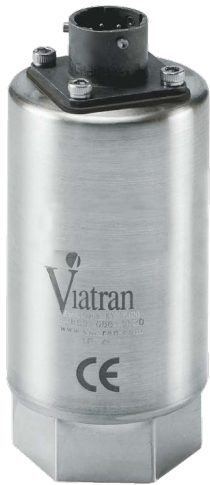


## INDUSTRIAL PRESSURE TRANSMITTERS

# Models 24A / 34A



### FEATURES

- 34 unique standard ranges
- Compact and lightweight
- Gage, sealed gage, absolute and vacuum
- High accuracy to  $\pm 0.10\%$  FSO (BFSL)
- All stainless steel construction
- 3 to 5000 PSI (0.2 to 345 bar)
- Shunt calibration circuit option
- Zero adjustment option

### 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
- Hydraulics

### 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.

### ISOLATED SHUNT CALIBRATION OPTION

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

### 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, visit [www.viatran.com](http://www.viatran.com)*

# Models 24A/34A

## PERFORMANCE

	Full Scale Pressure Range .....	0-3 thru 5000 PSIG (PSIG FOR >500 PSI) (0.2 thru 345 bar) 0-15 thru 0-5000 PSIA (0-1.0 thru 0-345 bar) 0-5 thru 0-15 PSIV (0-.34 thru 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) ±1.0% FSO standard
	Model 34A.....	16 mA at 70°F (21°C) ±1.0% FSO
	<b>Zero and Span Balance .....</b>	<b>± 1% FSO</b>
	Resolution .....	Infinite
Temperature Shift	Long Term Stability .....	≤±0.3% FSO per 6 months
	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	Model 24A .....	0 - 5 Vdc standard (see options)
	Model 34A .....	4 to 20 mA
	Circuit Protection .....	Reverse polarity protected. Output may be short circuited indefinitely. Over voltage protection to 1000 volts according to EN61000-4-5
	Insulation Resistance .....	≤ 5 nS 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	No Connection
Pin F	No Connection
Shell	Ground

### Model 34A

	+Power/Signal
	-Power/Signal
	No Connection
	No Connection
	No connection
	No connection
	Ground

## MATERIALS OF CONSTRUCTION

Wetted Parts .....	316 Stainless Steel
Housing.....	304L Stainless Steel
Weight .....	10 oz (283 g)
Identification .....	Permanently marked on body of unit

## ACCESSORIES

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

# Models 24A / 34A

**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 9,000 PSI (620 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).....	1.5 ml
	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
DA.....	Isolated Shunt Calibration Circuit
DC.....	Extended Compensated Temperature Range (Cold) -40°F to 170°F (-40°C to 77°C)
DG.....	Improved temperature compensation (≤±1.0%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 Compensated Temperature Range (Hot) +70°F to 185°F (21°C to 85°C)
LV.....	Externally powered, Optically Isolated Shunt Cal
NH.....	Customer specified identification
NW.....	External zero adjustment
PW.....	1/8 DIN digital indicator
TH.....	External zero and span adjustment
TU.....	Compound & Bi-directional special ranges
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.

