

PRESSURE TRANSMITTER

Models 24B / 34B



FEATURES

- Many options available
- Small size and weight
- High accuracy options
- All stainless steel construction
- 0-100 to 15,000 PSI (7 to 1000 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
- Hydraulic usage

STATE-OF-THE-ART DESIGN DELIVERS NEEDED ACCURACY

Viatran's 24B and 34B are our most versatile pressure transducers for industrial applications. The 24B/34B measures from 100 PSI to 15,000 PSI (7 to 1000 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.

Models 24B /34B

PERFORMANCE

	Full Scale Pressure Range	0-100 thru 15,000 PSIG (PSIS FOR \geq 1500 PSI) (7 thru 1000 bar)
	Nonlinearity (Best Fit Straight Line)	$\leq \pm 0.25\%$ FSO
	Hysteresis & Repeatability	$\leq \pm 0.10\%$ FSO each
Full Scale Output (FSO)	Model 24B.....	5 Vdc at 70°F (21°C) $\pm 1\%$ FSO
	Model 34B.....	16 mA at 70°F (21°C) $\pm 1\%$ FSO
	Resolution	Infinite
	Long Term Stability	$\leq \pm 0.3\%$ 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	$\leq \pm 2.0\%$ FSO per 100°F
	Temperature Effect on Span	$\leq \pm 2.0\%$ FSO per 100°F

ELECTRICAL

Supply Voltage

Model 24B..... 8 to 30 Vdc at 3.5 mA nominal, 5 mA max
(12 to 30 Vdc for 10 Vdc output option)

Model 34B..... 8 to 30 Vdc

Power Supply Regulation..... $\leq \pm 0.01\%$ FSO per volt change over the supply voltage range

Output Signal

Model 24B..... 0 - 5 Vdc standard (see options)

Model 34B..... 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 nSec 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 24B

Pin A	+Power
Pin B	-Power
Pin C	+Signal
Pin D	-Signal
Pin E	No connection
Pin F	No connection
Shell	Ground

Model 34B

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

MATERIALS OF CONSTRUCTION

Wetted Parts	15-5 PH Stainless steel
Housing.....	304L Stainless steel
Weight	10 oz (283 g)
Identification	Pressure sensitive label

ACCESSORIES

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

Models 24B / 34B

MECHANICAL

Pressure Connection	1/4" - 18 NPT female
Proof Pressure	1.5 times range or 20,000 PSI (1400 bar) max
Burst Pressure	3 times range or 35,000 PSI (2400 bar) max
Pressure Cavity Volume	4.5 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 cold temperature operation (-40°F to 170°F)
DG	Improved temperature compensation ($\leq \pm 1.0\%$ FSO per 100°F zero and span shift)
DH	Special ranging
DK	Special calibration setting
DM	Modified full scale output
DN	Improved linearity ($\pm 0.15\%$ FSO)
DQ	Cleaning for oxygen service
EA	Special calibration run
ED	Extra improved linearity ($\pm 0.10\%$ 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
NW	External zero adjustment
PW	1/8 DIN digital indicator
TH	External zero and span adjustment
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.

