



#### COMPACT, RUGGED AND RELIABLE

The solid machined stainless steel diaphragm is designed for applications requiring high frequency pressure cycling and a stable output over the life of the instrument.

#### SHUNT CALIBRATION OPTION

A shunt calibration feature is available to simulate 80% full scale output. This allows the user to verify the output as if pressure were being applied, either before or during installation of the device.

#### LEGACY SUPPORT

Viatran's 14B is specifically designed for early generation data acquisition systems which used external amplifiers. The 14B uses a 350 ohm bridge, which is compatible with legacy amplifiers to make instrumentation switch out fast and simple.

#### PRESSURE MEASUREMENT SOLUTIONS

You'll find complete specifications on the following pages to help you select the right 14B transducer for your application. Viatran offers a full line of pressure measurement products to choose from.

#### OUR COMMITMENT TO QUALITY

The "14B" series will perform and maintain on site durability in the most severe applications. To satisfy your unique application requirements, Viatran will also modify our standard products to meet your needs.

Viatran's vision is to be your fastest, easiest and most trusted solution.

Call us today to explore the solutions we have to offer.

**1.800.688.0030**

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**Your local applications specialist:**

#### FEATURES

- Many options available
- Small size and weight
- Improved accuracy option
- All stainless steel construction
- 0-100 to 15,000 PSI (7 to 1000 bar)
- Shunt calibration circuit option
- 3 mV/V output strain gage sensor
- 350  $\Omega$  bridge

#### 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



# Model 14B

## PERFORMANCE

	Full Scale Pressure Range .....	0-100 thru 1,500 PSIG (7 thru 100 bar) 0-2,000 thru 15,000 PSIS (137 thru 1,000 bar) 0-100 thru 1,500 PSIS (7 thru 100 bar) Option available.
	Nonlinearity (Best Fit Straight Line) .....	< ±0.25% FSO
	Hysteresis & Repeatability .....	≤±0.10% FSO each
Full Scale Output (FSO)	Model 14B.....	3.0 mV/V dc at 70°F (21°C) ±1% FSO 2.0 mV/V dc at 70°F (21°C) ±1% FSO for 0-100 & 0-150 PSI
	Zero and Span Balance .....	± 1% FSO
	Resolution .....	Infinite
	Long Term Stability .....	< ±0.3% FSO per 6 months
Temperature Shift	Compensated Temperature Range.....	70°F to 170°F (21°C to 77°C)
	Operating Temperature Range .....	-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 14B.....	10 V dc nominal, 15 V max
	Power Supply Regulation.....	≤±0.01% FSO per volt change over the supply voltage range
Output Signal	Model 14B.....	3.0 mV/V dc standard for ≥ 200 PSI 2.0 mV/V dc at 70°F (21°C) ±1% FSO for 0-100 & 0-150 PSI
	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 14B	Pin A	+Power
	Pin B	-Power
	Pin C	+Signal
	Pin D	-Signal
	Pin E	No connection
	Pin F	No connection

## MATERIALS OF CONSTRUCTION

Wetted Parts .....	15-5 PH Stainless steel
Housing.....	300 Series 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

# Model 14B

## MECHANICAL

Pressure Port .....	1/4" - 18 NPT female
Proof Pressure .....	1.5 times range
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
BH.....	Weld Mount, 6-pin bayonet (C21-10-6PN-20-0P1)
BL.....	WK6-32S
BN.....	(K)PTIH-8-4P
BQ.....	(K)PTO2H-10-6P
BR.....	CF3102E-14S-6P
DC.....	Extended Compensated Temperature Range (Cold) -40°F to 170°F (-40°C to 77°C)
DE.....	Internal shunt calibration
DG.....	Improved temperature compensation ( $\leq \pm 1.0\%$ FSO per 100°F zero and span shift)
DH.....	Special ranging
DK.....	Special calibration setting
DN.....	Improved linearity ( $\pm 0.20\%$ FSO)
DQ.....	Cleaning for oxygen service
DY.....	mV Booster
EA.....	Special calibration run
EH.....	Extended Compensated Temperature Range (Hot) +70°F to 185°F (21°C to 85°C)
LR.....	Permanent laser mark
NH.....	Customer specified identification
PW.....	1/8 DIN digital indicator
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.

