

Pressure Transducer

ELECTRONIC BAROMETER

MODEL 246 / 346



The X46 Series measure pressures over standard ranges of 25" HgA to 32" HgA. Model 246 provides a 0-5 VDC output signal, while the Model 346 offers a 4-20 mA signal. Optional Full Scale Pressure Ranges (FSPR) and output signals are available.

Models 246 and 346 meet requirements for engine test stands and environmental test chambers where extremely accurate barometric readings are crucial. The X46 Series is also used in altitude test chambers where it can be scaled to a digital indicator to read the barometric pressure or equivalent altitude. The high accuracy of the X46 Series also makes it ideal for use in Automated Weather Observation Systems (AWOS) and Automated Surface Observing Systems (ASOS) at airports.

The compact design of Models 246 and 346 is convenient for use in applications where space is limited. The all

stainless steel construction, including 316 wetted parts, insures corrosion resistance in harsh environments. Low power consumption of Model 246 allows for remote, battery operated data collection.

Viatran has developed a complete line of precision products specifically for industrial test applications. The Model X45 Series is our most accurate pressure transducer for high range (2 to 100K PSI) gage and absolute measurement. For differential pressure measurement, our Models 274 and 374 maintain the same high quality and integrity as our gage and absolute products.

Call Viatran today for more information about our product lines for the industrial test, process control, oil field and hydraulic industries. You can depend on Viatran's pressure measurement products for the best results.

Viatran's Models 246 and 346 are electronic pressure transducers designed to accurately measure barometric pressure to within 0.01" Hg.

FEATURES

- High accuracy
- Small size and weight
- Optional electrical connectors and pressure ports available
- All stainless steel construction
- Optional pressure ranges
- Shunt calibration circuit

TYPICAL APPLICATIONS

- Engine test stands
- Altitude test chambers
- Environmental test chambers
- Vehicle fuel emissions
- Data buoys
- Remote weather stations

Contact Viatran for approval options



For product availability, or to order please call 1-800-688-0030

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An ISO 9001: 2001 Certified Company

SPECIFICATIONS

Performance

Full Scale Pressure Range (FSPR)	25" to 32" HgA standard (Optional ranges can be factory set from 16" HgA lower range limit to 35" HgA upper range limit, 7" Hg span minimum.)
Non-Linearity (Best Fit Straight Line) & Hysteresis & Repeatability	$\leq \pm 0.007"$ Hg
Resolution	Infinite
Response Time	$\leq \pm 5$ mSec
Zero Repeat After 100° F Temperature Shift	$\leq \pm 0.007"$ Hg
Compensated Temperature Range	70° F to +170° F
Operating Temperature Range	-40° F to +185° F
Storage Temperature Range	-40° F to +250° F
Temperature Effect on Zero	$\leq \pm 0.01"$ Hg per 1° F
Temperature Effect on Span	$\leq \pm 0.01"$ Hg per 1° F
Long Term Stability	$\leq \pm 0.035"$ Hg per 6 months

Electrical

Supply Voltage	9 to 40 VDC
Power Supply Regulation	$\leq \pm 0.000007"$ Hg per Volt
Output Signal	
Model 246	0 to 5 VDC
Model 346	4 to 20 mA
Output Signal Noise Levels	
Model 246 (0-5 VDC)	≤ 10 mV peak to peak
Model 346	≤ 32 μ Amps
Load Resistance	
Model 246	≥ 10 K Ohms
Model 346	1500 Ohms maximum at 40 VDC
Zero Balance	Actual output at 25" HgA will be etched onto body. Tolerance of stated value is $\leq \pm 0.01"$ Hg of actual.
Span	Actual output at 32" HgA will be etched onto body. Tolerance of stated value is $\leq \pm 0.01"$ Hg of actual.
Circuit Protection	Reverse polarity protected. Output may be short circuited indefinitely. Input circuit protected to 1000 Volts for ≤ 1 mSec.
Insulation Resistance	≤ 5 nS
Electrical Connections	Bendix PT02E-10-6P, mates with PT06E-10-6S (SR)
	Model 246 Model 346
Pin A	+ Power + Power / Signal
Pin B	- Power - Power / Signal
Pin C	+ Signal No Connection
Pin D	- Signal No Connection
Pin E	No Connection No Connection
Pin F	No Connection No Connection

Mechanical

Pressure Connections	1/4" NPT Female
Proof Pressure	85 PSIA (173" HgA)
Burst Pressure	2K PSI
Pressure Cavity Volume	0.25 cubic in.
Mounting	May be supported by pressure port.
Wetted Parts	316 Stainless steel, Viton "O"-Ring
Housing	304L Stainless steel
Weight	15 oz.
Identification	Laser etched onto body

Options

Code	Description
<i>Alternate Electrical Connectors</i>	
BA	(K)PTIH-12-8P
BE	Aphenol 165-15
BF	(K)PTIH-10-6P
BG	DIN 43650
BI	CF3102E-14S-2P
BK	WK4-32S
BL	WK6-32S
BM	WKA7-32S
BN	(K)PTIH-8-4P
BQ	(K)PT02H-10-6P
BR	CF3102E-14S-6P
BS	CF3102E-14S-5P
<i>Performance option</i>	
DG	Improved temperature performance to 0.00072" Hg per 1° F (zero and span)
DH	Special ranging
EA	Twenty point calibration run at specified temperature
GE	Buna "O"-Ring
NH	Custom identification
<i>Alternate Pressure Ports</i>	
YA	MS33649-04
YH	1/8" NPT(M)
YI	1/8" NPT(F)
YK	1/4" NPT(M)
YN	3/8" NPT(F)
YP	1/2" NPT(M)
YR	1/2" NPT(F)

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

Accessories

Power supply
Digital indicator
Mating electrical assembly

