Pressure Tranducer

LOW RANGE GAGE & ABSOLUTE PRESSURE



The Model 244 provides a 0 to 5 VDC signal, while the Model 344 offers a 4 to 20 mA signal.Using our variable capacitance technology, the 244 and 344 transducers provide extreme overpressure protection up to 500 PSI.

This sensor design provides standard accuracy of $\leq \pm 0.15\%$ FSO. The unit also offers standard temperature performance to $\pm 2\%/100^{\circ}$ F with an improved option to $\pm 1\%/100^{\circ}$ F.

All wetted surfaces of the X44 Series are constructed with 316 stainless steel, making them ideal for wet/wet applications. In environmental test chambers, these surfaces withstand contaminants such as water vapor, oil, exhaust or mists.Atmospheric reference is specially constructed to withstand the ingress of moisture, ensuring accurate pressure measurement.

Models 244 and 344 feature an internal calibration circuit for easy field setup, a quick disconnect electrical connection and external zero and span controls. These features allow you to calibrate the transducer without an external pressure source and eliminate the need to send the unit to a metrology lab for calibration.

The small size enables a better fit into tight test applications. Viatran can also easily modify the X44 Series with optional outputs, electrical connectors and pressure ports to suit your application needs.

Viatran has developed a complete family of precision products designed specifically for industrial test and research applications. The X45 and X49 are our most accurate (2 to 100K PSI) gage and absolute units. Models X46 are designed to measure barometric pressure to within 0.01" Hg.For differential pressure measurement, our Models X74 and X76 maintain the same high quality and integrity as our gage and absolute products. You can depend on Viatran's pressure measurement products for the best results.

MODEL 244 / 344

Viatran's Models 244 and 344 add a low range gage pressure transducer to our extensive industrial test product line. The X44 Series features highly accurate pressure measurement in ranges from 5" W.C. to100 PSIG.

FEATURES

- 500 PSI overpressure protection
- All 316 SS wetted surfaces
- High accuracy $\leq \pm 0.15\%$
- Very low ranges to 5" WC
- Internal shunt calibration circuit

TYPICAL APPLICATIONS

- Autoclave Systems
- Leak detection systems
- Engine test stands
- Environmental test chambers

Contact Viatran for approval options



SPECIFICATIONS

Performance

Full Scale Pressure Range (FSPR)

Non-Linearity (Best Fit Straight Line) Hysteresis & Repeatability Full Scale Output (FSO) Model 244 Model 344 Resolution Long Term Stability Zero Shift After 500 PSI Overload Compensated Temperature Range **Operating Temperature Range** Storage Temperature Range Temperature Effect on Zero Temperature Effect on Span

Electrical

Supply Voltage Power Supply Regulation

Output Signal Model 244 Model 344 Output Loading (Model 244) Load Impedance (Model 344)

> Zero Adjustment Model 244 Model 344 Span Adjustment Model 244 Model 344 Calibration Signal

Calibration Signal Accuracy Circuit Protection Insulation Resistance **Response Time**

Electrical Connections

Pin A Pin B Pin C Pin D Pin E Pin F

Mechanical

Pressure Connections Proof Pressure Burst Pressure **Position Sensitivity** Shock & Vibration

> Fill Fluid Mounting

Materials of Construction Housing

> Wetted Parts Weight Identification

| 0-5, 10, 20, 50, 100, 300, 750" W.C. 0-15, 50, 100 PSIG ≤±0.15% FSO ≤± 0.10% FSO |
|---|
| 5 VDC at 70° F 16 mA at 70° F |
| Infinite ≤ ± 0.2% FSO per 6 months ≤ ± 0.1% FSO +70° F to +170° F 0° F to +250° F -40° F to +250° F ≤± 2.0% FSO per 100° F ≤ ± 2.0% FSO per 100° F |

10 to 42 VDC

≤ ± 0.1% FSO change over the supply voltage range 0 to 5 VDC standard (see option DM) 4 to 20 mA

3000 Ohms minimum 1600 Ohms with input voltage change from 10 to42 VDC

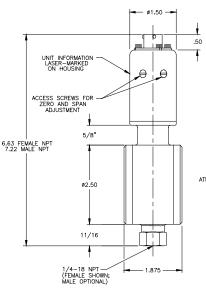
± 10% FSO minimum ± 5% FSO minimum

± 10% FSO minimum ± 10% FSO minimum 80% of the FSPR, by shorting pins - see **Electrical Connections** ≤ ± 0.5% FSO Reverse polarity protected <1nS From 0.2 Sec for 5" W.C. range down to 0.008 Sec for 100 PSI range. Faster response available with NF option. Bendix PT02E-10-6P, mates with PT06E-10-6S (SR) Model 244 Model 344

| + Power | + Power / Signal |
|-----------|------------------|
| - Power | - Power / Signal |
| + Signal | Calibrate |
| - Signal | Calibrate |
| Calibrate | N/C |
| Calibrate | N/C |

1/4" NPT Female 500 PSI 1000 PSI <u>
<u>
</u>
± 1.0" W.C. in any orientation
</u> \leq ± 1.0% FSO per G for 50 Hz to 200 Hz along any axis Dow DC200 Silicone oil May be supported by process piping or by optional mounting bracket

304 and 316 Stainless Steel with a Cadmium plated electrical connector 316 Stainless steel 3.6 lbs. Laser etched onto body



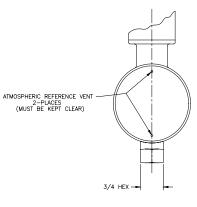
Options

| Code | Alternate Electrical Connectors | |
|------|------------------------------------|--|
| BA | (K)PTIH-12-8P | |
| BF | (K)PTIH-10-6P | |
| BG | DIN 43650 344 Only | |
| BI | CF3102E-14S-2P 344 Only | |
| BK | WK4-32S 344 Only | |
| BL | WK6-32S | |
| BM | WKA7-32S | |
| BN | (K)PTIH-8-4P 344 Only | |
| BQ | (K)PTO2H-10-6P | |
| BR | CF3102E-14S-6P | |
| BS | CF3102E-14S-5P 344 Only | |
| ZS | (K)PTO2E-10-6P | |
| ZV | C31-10-6P-20-OP1 (SS) | |
| | Performance options | |
| DG | Improved temperature compensation | |
| | to ±1.0% FSO per 100°F | |
| DH | Special ranging | |
| DK | Special calibration setting | |
| DM | Modified full scale output | |
| | (Model 244 only) | |
| DQ | Cleaning for Oxygen service | |
| EA | Calibration run at specified | |
| | temperature | |
| NF | Fast response time | |
| NH | Stainless steel identification tag | |
| NM | Alternate output signal(3mV/V) | |
| | (Model 244 only) | |
| PW | 1/8 DIN Digital Indicator | |
| | Alternate Pressure Ports | |
| YA | MS 33649-04 | |
| YH | 1/8 NPT(M) | |
| YI | 1/8 NPT(F) | |
| YK | 1/4 NPT(M) | |
| YN | 3/8 NPT(F) | |
| | | |

Accessories

Digital Indicator Mating electrical assembly Mounting bracket







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.