

# Pressure Transducer

## MODEL x48



Our customers requested transducers that would stand up to harsh conditions in applications involving environmental contamination, pressure spikes, shock and vibration. Models 148, 248 and 348 are the solution. Take a look at the Features.

### FEATURES

- Resistant to pressure spikes
- High accuracy ( $\leq 0.15\%$ )
- Response time less than 1 millisecond
- Welded stainless steel construction
- All welded NEMA 4X design
- 3X overpressure rating
- mV/V, 0-5 VDC, 4 to 20 mA outputs
- CE approved

### TYPICAL APPLICATIONS

- Die casting
- Stamping presses
- Rolling mills
- Injection molding
- Compressors and pumps
- Off road vehicles
- Hydraulic usage
- Test stands

## RUGGED. ACCURATE. INEXPENSIVE. FIELD PROVEN

### DESIGNED FOR HARSH CONDITIONS

All welded stainless steel construction combined with sensors that are hermetically sealed with no adjustment controls, provide an airtight and watertight\* transducer preventing contamination from the application environment.

### SPIKE RESISTANT

The "48" Series is made to withstand overloads and severe pressure spikes that can offset, weaken or destroy other sensors. The minimum 3x overpressure rating on the X48 means better than 0.15% accuracy while still offering a response time of less than a millisecond. It's designed to provide years of reliable, repeatable service.

### FLEXIBLE TO YOUR NEEDS

Standard pressure ranges are from 3 to 15K PSI, with output of mV/V, 0-5 VDC and 4-20 mA. Additional outputs are also available. Viatran's available standard options and ability to modify products provides flexibility to meet your specific application needs.

Standard options include alternate pressure ports, electrical connectors, multiple pressure formats and various electrical outputs. Viatran's rugged reputation is also standard.

For product availability, or to order, call a member of the Control Service Team at 1-800-688-0030, ext 512.



For product availability, or to order please call 800-688-0030 or 716-773-1700, ext 512.

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An ISO 9001:2000 Certified Company

### SPECIFICATIONS

#### PERFORMANCE

Full Scale Pressure Range . . . . . 0-15 PSIV  
 . . . . . 0-15 thru 0-200 PSIA  
 . . . . . 0-3 thru 0-15,000 PSIG, PSIS

Accuracy (combined linearity, hysteresis and repeatability)  
 0-200 PSI . . . . . ≤0.25%  
 300-15K PSI . . . . . ≤0.15%

Full Scale Output (FSO)  
 Model 148 . . . . . mV/V output, dependent  
 Model 248 . . . . . 5 VDC  
 Model 348 . . . . . 16 mA  
 Resolution . . . . . Infinite  
 Long Term Stability . . . . . ≤0.5% FSO per 6 months  
 Operating Temperature Range . . . . . -40° F to +185° F  
 Storage Temperature Range . . . . . -65° F to +250° F  
 Temperature Effect on Zero . . . . . ≤±1.0% FSO per 100° F nominal  
 Temperature Effect on Span . . . . . ≤±1.0% FSO per 100° F nominal  
 Zero Balance . . . . . ≤±1.0% FSO  
 FSO Balance . . . . . ≤±1.0% FSO

#### ELECTRICAL

Supply Voltage  
 148 . . . . . 10V Nominal, 15V maximum  
 248 . . . . . 9 to 30 VDC  
 348 . . . . . 9 to 30 VDC  
 Power Supply Regulation . . . . . ≤ ± 0.01% FSO per volt over the supply voltage range (248/348 only)

Output Signal  
 148 . . . . . 2.5 to 10 mV/V  
 248 . . . . . 0 to 5 VDC  
 348 . . . . . 4 to 20 mA  
 Circuit Protection . . . . . Reverse polarity protected  
 Insulation Resistance . . . . . >200 MegOhms to case ground  
 Response Time . . . . . ≤1 mSec for 10% to 90% of FSO  
 Electrical Connections . . . . . 6-pin hermetic, bayonet-style, 303 SST weldmount connector

#### MECHANICAL

Pressure Connections . . . . . 1/4" NPT Female  
 Proof Pressure . . . . . 3 times FSPR or 20K PSI, whichever is less  
 148 ≥ 300 PSI . . . . . 1.5 times FSPR or 20K PSI, whichever is less  
 Burst Pressure . . . . . 5 times FSPR or 45K PSI, whichever is less  
 Pressure Cavity Volume . . . . . 3 ccs without fittings  
 Mounting . . . . . May be supported by process piping

	Model 148	Model 248	Model 348
Pin A	+Power	+Power / +Signal	+Power / +Signal
Pin B	-Signal	-Power / -Signal	-Power / -Signal
Pin C	+Signal	+Signal	No connection
Pin D	-Signal	-Signal	No connection
Pin E	No connection	No connection	No connection
Pin F	No connection	No connection	No connection

#### MATERIALS OF CONSTRUCTION

Wetted Parts  
 0-5 thru 200 PSI . . . . . 316 stainless steel  
 >200 PSI . . . . . 15-5PH stainless steel  
 Housing . . . . . 316/304 stainless steel  
 Weight . . . . . 10 oz  
 Identification . . . . . Laser etched onto body

#### OPTIONS

Electrical Connection  
 BH . . . . . C21-10-6PN-20-0P1 (Weld w/RFI)  
 BI . . . . . CF3102E-14S-2P  
 BZ . . . . . Micro change  
 ZU . . . . . Direct coupled cable  
 ZY . . . . . 1/2" (M) NPT conduit connection

Alternate Pressure Ports  
 WG . . . . . G-1/4" (F) without fill port  
 YC . . . . . MS33656-04 (M)  
 YD . . . . . MS33656-06 (M)  
 YG . . . . . MS16142-04 (F)  
 YK . . . . . 1/4" NPT (M)  
 YU . . . . . MS16142-06 (F)

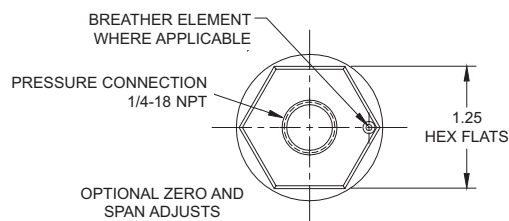
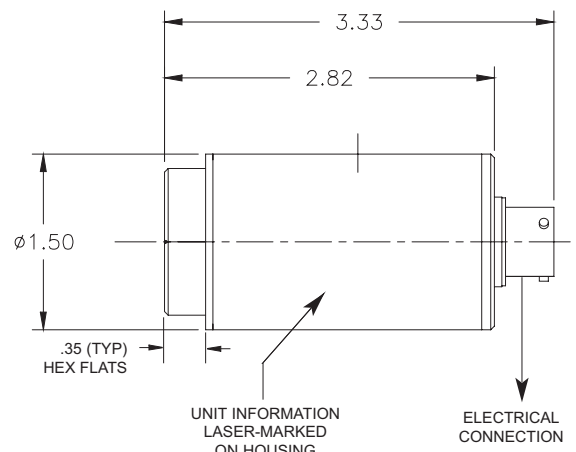
Performance Options  
 DE . . . . . Internal calibration  
 DG . . . . . Improved temperature compensation  
 DH . . . . . Special ranging  
 DM . . . . . Modified full scale output  
 DQ . . . . . Cleaning for Oxygen service  
 EA . . . . . Special calibration run  
 NH . . . . . Customer specified ID  
 NJ . . . . . CE approved  
 PW . . . . . 1/8 DIN Digital indicator  
 TH . . . . . Zero and Span Adjustment

#### OTHER OPTIONS AVAILABLE ON REQUEST.

#### ACCESSORIES

Digital Indicators  
 Mounting bracket  
 Mating electrical connector/assembly  
 Protective cover

Note: Vented gage units should only be installed in environments that allow the breather to remain dry and free from contamination. Application of some available options may affect standard performance. Consult your Viatran Representative for details.



### THE INDUSTRIAL TEST AND CONTROL FAMILY.



CALL 1-800-688-0030 OR 716-773-1700, EXT 512  
 FOR DETAILS ABOUT THE ENTIRE FAMILY