

PRESSURE TRANSMITTER

Models 148 / 248 / 348



FEATURES

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

TYPICAL APPLICATIONS

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

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 MEET YOUR NEEDS

Standard pressure ranges are from 3 PSI thru 15K PSI (0.2 to 1034 bar) with outputs 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 provide flexibility to meet your specified application needs.

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

PERFORMANCE

	Full Scale Pressure Range	0-15 thru 0-200 PSIA (0-1.0 thru 0-13.7 bar)
	0-3 thru 0-15K PSIG, PSIS (0-0.2 thru 0-1034 bar)
	0-15 PSIV*
Accuracy (combined linearity, hysteresis & repeatability)	0-200 PSI (0-13.7 bar)	≤0.25%
	300-15K PSI (20-1034 bar)	≤0.15%
	Zero Balance	≤±1% FSO
Full Scale Output (FSO)	148	mV/V output, range dependent
	248	5 Vdc ±1%
	348	16 mA ±1%
	Resolution	Infinite
	Long-Term Stability	≤0.5% FSO per 6 months
	Compensated Temperature Range	70°F to 170°F (21°C to 76°C)
	Operating Temperature.....	-40°F to 185°F (-40°C to 85°C)
	Storage Temperature Limits.....	-65°F to 250°F (-54°C to 121°C)
	Temperature Effect on Zero	≤±1% FSO per 100°F
	Temperature Effect on Span	≤±1% FSO per 100°F

ELECTRICAL

Supply Voltage	148	10Vdc nominal, 15V max	
	248	9 to 30 Vdc	
	348	9 to 30 Vdc	
	Power Supply Regulation Effect	±0.05% FSO per volt over the supply voltage range (248/348 only)	
Output Signal	148	2.5 to 10 mV/V	
	248	0 - 5 Vdc	
	348	4 - 20 mA	
	Circuit Protection	Reverse polarity protected	
	Insulation Resistance	<5nS conductance	
	Response Time	≤1 mSec for 10% to 90% FSO	
	Electrical Connection.....	6 pin hermetic, bayonet-style, 303 SST weldmount connector	
	148	248	348
Pin A	+Power	+Power	+Power/Signal
Pin B	-Power	-Power	-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

MECHANICAL

Pressure Connection	1/4" NPT female
Proof Pressure	3 times FSPR or 20K PSI (1378 bar), whichever is less
148 ≥ 300 PSI (20 bar).....	1.5 times FSPR or 20K PSI (1378 bar), whichever is less
Burst Pressure.....	5 times FSPR or 45K PSI (3102 bar), whichever is less
Pressure Cavity Volume.....	3 mL without fittings

MATERIALS OF CONSTRUCTION

Wetted Parts	0-3 thru 200 PSI (0-0.2 thru 13 bar)	316 stainless steel
	>200 PSI (>13 bar)	15-5PH stainless steel
	Housing	316/304 stainless steel
	Weight	10 oz
	Mounting.....	May be supported by process piping
	Identification.....	Laser etched onto body

ACCESSORIES

- Digital indicators
- Mounting bracket
- Mounting electrical connector/assembly
- Protective cover

* For PSIV and Compound Range units:

Temperature Effect on Zero	≤±3.0% per 100°F
Compensated Temperature Range	32°F to 170°F (0°C to 77°C)
148 output signal	5 mv/V

OPTIONS

Electrical Connection	BH.....C21-10-6PN-20-0P1
	Bl.....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)
	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 upon request.

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.

ALL DIMENSIONS ARE NOMINAL, IN INCHES AND FOR REFERENCE PURPOSES ONLY

