

PRESSURE TRANSMITTER

## Models 247 / 347



### FEATURES

- Economical
- Adjustable zero
- Resistant to pressure spikes
- Standard DIN connector
- Welded stainless steel construction

### TYPICAL APPLICATIONS

- Hydraulic systems
- Injection molding
- Die casting
- Off road vehicles
- Compressors and pumps
- High volume usage

### DESIGNED FOR HARSH CONDITIONS

Viatran's Model X47 uses bonded foil sensing technology to offer a rugged but inexpensive solution that is small and fits into hard-to-access areas.

### INSPIRED BY DIVERSE NEEDS

Hydraulic systems in test and control applications generate several "spikes" that overpressure many sensors. To combat spikes, Viatran employs a bonded foil strain gage on a hardened stainless steel diaphragm. This higher mass diaphragm withstands short-term overpressure conditions inherent in hydraulic applications. For measuring low pressure (3 to 200 PSIG or 0.2 to 13.8 bar), Viatran uses a piezoresistive silicon sensor.

### EASILY ADAPTABLE

The X47 series utilizes several features to fit the widest possible applications. The standard DIN 43650 connector is an industrial standard with excellent weather resistance.

The X47 can be fitted with a 6-pin bayonet or a direct coupled cable. The X47 has a 1/4" NPT or SAE female pressure port. A standard zero adjustment control makes setup simple.

*For more information, contact Viatran.*

**PERFORMANCE**

	Full Scale Pressure Range (FSPR) .....	0-15, 30, 50, 75, 100, 200, 300, 500 <b>PSIA</b>
	.....	0-3, 5, 10, 15, 30, 50, 75, 100, 200, 300, 400, 500, 1,000, 1,500 <b>PSIG</b>
	.....	2K, 3K, 4K, 5K, 7.5K, 10K, 15K, 20K <b>PSIS</b>
	.....	0-5, 10 & 15 <b>PSIV*</b>
	Non-linearity (Best Fit Straight Line) .....	≤±0.50% FSO
	Hysteresis .....	<0.25% FSO
	Non-Repeatability .....	±0.1% FSO
Full Scale Output (FSO)	247 .....	5 Vdc ±2% at 70°F (21°C)
	347 .....	16 mA ±2% at 70°F (21°C)
	Resolution .....	Infinite
	Long Term Stability .....	≤±0.5% FSO per 6 months
	Compensated Temperature Range .....	70°F to 170°F (21°C to 76°C)
	Maximum Operating Temperature .....	200°F (93°C)
	Minimum Operating Temperature .....	-20°F (-28°C)
	Storage Temperature Limits .....	-40°F to 250°F (-40°C to 121°C)
	Thermal Effect on Zero .....	≤±2% FSO per 100°F Typical
	Thermal Effect on Span .....	≤±2% FSO per 100°F Typical
	Zero Adjust .....	±5% of FSO (nominal)

**ELECTRICAL**

	Supply Voltage .....	8 to 30 Vdc
Power Supply Regulation	247 .....	≤±0.05% FSO per Volt
	347 .....	≤±0.08% FSO per Volt
Output Signal	247 .....	0-5 Vdc
	247 w/DM option .....	0 to 10 Vdc (requires 12 Vdc supply min)
	347 .....	4 to 20 mA
	Load Impedance (347 only) .....	1050 Ohms max at 30 Vdc
	Load Impedance (247 only) .....	≥50K Ohm resistive
	Circuit Protection .....	Reverse polarity protected. CE marked
	RFI/EMI .....	CE EMC compliant as per IEC EN 61326-1 and EN 61326-2-3
	.....	Annex BB
	Voltage Spike .....	Withstand 1000 volt spike per EN 61000-4-5
	Insulation Resistance .....	<5 nS conductance
Input current	247 .....	≤4 mA
	347 .....	4-20 mA
	Response Time .....	<2 mSec for 10-90% change in output
	Electrical Connections .....	DIN Plug 43650
	247	347
Pin 1	+Power	+Power/Signal
Pin 2	+Signal	-Power/Signal
Pin 3	Common	No connection
Ground Spade	Case ground	Case ground

**MECHANICAL**

Pressure Connection .....	1/4" NPT female
Proof Pressure .....	≤200 PSI 3x
.....	≥ 300 PSI 1.5 times FSPR or 25K PSI (1723 bar), whichever is less
Burst Pressure .....	5 times FSPR or 30K PSI (2068 bar), whichever is less
Pressure Cavity Volume .....	0.06 cubic inches, nominal

**MATERIALS OF CONSTRUCTION**

Wetted Parts	0-3 thru 200 PSI (0-1.0 thru 13.7 bar) .....	316L stainless steel
	0-300 PSI (20.6 bar) and above .....	15-5PH stainless steel
Weight .....		8 oz nominal silicon sensor, 10.5 oz nominal (strain gage)
Identification .....		Permanently marked on body of unit
Mounting .....		May be supported by process piping

\* For PSIV and Compound Range units, thermal effect on zero is ≤±3.0% per 100°F.



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**OPTIONS**

Codes	DH.....	Special range
	DN .....	Improved Linearity 0.35% FSO (BFSL) for 0-3 thru 0-20,000 PSI
	DX .....	Modified Full Scale Output ( $\leq 5$ Vdc)
	DM .....	Modified Full Scale Output ( $> 5$ Vdc)
	NH .....	Customer Specified Marking

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.

**ACCESSORIES**

- Digital indicator
- Mating electrical assembly
- Mating electrical connector
- Protective cover

