PRESSURE TRANSMITTER

Models 247 / 347

$C\epsilon$

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 PSI or 0.34 to 13.7 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) ....0-3, 5, 10, 15, 30, 50, 75, 100, 200, PSIG, PSIA
....0-300, 400, 500, 750, 1K, 1.5K, 2K, 3K, 4K, 5K, 7.5, 10K, 15K,
....20K PSIG
....0-15 PSIV*

Full Scale Output (FSO)

Non-linearity (Best Fit Straight Line) ....≤±0.50% FSO
Hysteresis ....<0.25% FSO
Non-Repeatability ....±0.1% 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..Synthetic label
Mounting..May be supported by process piping

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

Viatran

OPTIONS	Codes	
	DH	Special range
	DN	Improved Accuracy, ±0.35% FSO for 0-3 thru 0-15,000 PSIG
	DX	Modified output

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

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

2.75
.44
.50 - .63 (TYP)
ALL STAINLESS STEEL HOUSING
Ø1.50
1.25 FLATS
PRESSURE CONNECTION: 1/4-18NPT
BREATHER ELEMENT (WHERE APPLICABLE)
ACCESS SCREW FOR ZERO ADJUSTMENT
UNIT INFORMATION PERMANENTLY MARKED ON HOUSING
ELECTRICAL CONNECTION: 4-TERMINAL CONNECTOR PER DIN 43650
GROUND SPADE
PIN 1
PIN 2
PIN 3

98DSX47b

Viatran