

## PRESSURE TRANSMITTER

# Models 118 / 218 / 318



### FEATURES

- **Stainless steel construction**
- **Gage, absolute, vacuum and differential pressure formats**
- **Cleanable pressure cavity**
- **Shunt calibration circuit**

### TYPICAL APPLICATIONS

- **Test Stands**
- **Engine/Brakes**
- **Leak Detection**
- **Hydraulic**
- **Aerospace/Ground Support**
- **Laboratory/Research**
- **Hydraulic Control**
- **Die Casting**
- **Rolling Mills**

### DESIGNED FOR HARSH CONDITIONS

Built with bonded foil strain gage technology, the Model X18 provides outstanding reliability and performance from ranges as low as 5 PSI to as high as 15,000 PSI.

### ADAPTS TO YOUR APPLICATION

The X18 is a Gage, Absolute, Vacuum or Differential transmitter, meaning it will handle your pressure application.

### RUGGED CONSTRUCTION

The all stainless steel construction of the X18 is the first layer of defense against the elements. Potted electronics and options such as submersible housing complete one of the most rugged transmitters on the market.

### EASY CALIBRATION

The X18 includes an internal calibration circuit. This feature allows you to calibrate the transmitter without an external pressure source.

### VERSATILE DESIGN

Modular construction allows Viatran the ability to easily modify the X18 with optional outputs, proof pressures, electrical connectors and pressure ports depending on the application. The versatile design of the "18" Series makes it easy to tailor these pressure transmitters to meet your specific needs.

Viatran offers a full line of pressure transmitters for industrial test applications.

*For more information, contact Viatran.*

# Models 118 / 218 / 318

## PERFORMANCE

	Full Scale Pressure Range .....	(FSPR) 0-5, 10, 15 PSIV
	.....	0-5, 10, 15, 20, 25, 30, 50, 75, 100, 150, 200, 300, 400, 500, 750,
	.....	1K, 1500, 2K, 3K, 4K, 5K 6K 7500, 10K and 15K PSIG, PSIA
	.....	(PSID 0-6K max, 500 PSI max on reference side)
Non-Linearity (Best Fit Straight Line)	50-10K PSI .....	≤0.15% FSO
	5-40 PSI, 15K PSI.....	≤0.25% FSO
	Hysteresis .....	≤0.25% FSO
	Repeatability.....	≤0.1% FSO
Full Scale Output (FSO)	118 .....	2-3 mV/V
	218 .....	5 Vdc
	318 .....	16 mA
	Resolution .....	Infinite
	Long-Term Stability.....	≤±0.25% FSO per 6 months
Response Time	118 .....	≤1 mSec to reach 90% FSO
	218 / 318 .....	≤5 mSec to reach 90% FSO
Zero Balance	118 .....	Fixed at 0 mV ±2% FSO at 70°F (21°C)
	218 / 318 .....	Adjustable to ±10% FSO
	Temperature Effect on Zero .....	≤±2.0% FSO per 100°F (37°C)
	Temperature Effect on Span .....	≤±1.0% FSO per 100°F (37°C)
	Compensated Temperature Range .....	70°F to 170°F (56°C to 76°C)
	Operating Temperature Range .....	-40°F to 250°F (-40°C to 121°C)
	Storage Temperature Range .....	-50°F to 250°F (-45°C to 121°C)

## ELECTRICAL

Supply Voltage	118 .....	10 to 15 Vdc
	218 .....	10 to 48 Vdc
	318 .....	9.5 to 30 Vdc
	Power Supply Regulation.....	0.1% FSO max (218)
Output Signal	118: 0-5 & 0-10 PSI.....	1.6 to 2.4 mV/V; 2 mV/V typical
	118: 0-15 PSI and Above .....	2.4 to 3.6 mV/V; 2 mV/V typical
	218 .....	0 to 5 Vdc
	318 .....	4 to 20 mA
Load Impedance	218 .....	≥50K Ohms min for ≤0.1% FSO attenuation
	318 .....	800 Ohms max at 30 Vdc
Circuit Protection	118 .....	None
	218 / 318 .....	Reverse polarity does not affect calibration
Range Calibration Signal	118 .....	80% FSO by applying a specified resistance across Pins 2 & 4 of the connector
	218 .....	80% FSO by shorting connector Pins 5 & 6
	318 .....	100% FSO by shorting connector Pins 3 & 4
Span Adjustment	118 .....	None
	218 / 318 .....	Adjustable to ±10% FSO
	Bridge Resistance.....	350 Ohms nominal (118 only)
	Insulation Resistance .....	>1000 MegOhms to case ground

## MECHANICAL

Pressure Connection.....	1/4" NPT (F)
Proof Pressure.....	1.5 times FSPR or 20K PSI
Burst Pressure.....	5 times FSPR or 22K PSI
Weight .....	25 oz nominal
Enclosure Materials .....	15-5 PH, 303 and 304 stainless steel
Identification.....	Laser etched onto body
Measured Fluids .....	Any gas or liquid compatible with 15-5 PH, 17-7 PH, 303 SS and B
.....	Buna N O-ring
Position Sensitivity .....	Mounts in any position with no effect on zero

## ACCESSORIES

- Mounting Bracket
- Mating Electrical Connector
- Rubber Protective Cover
- Pressure Indicating System

**ELECTRICAL CONNECTION**

118	Cannon WK4-32S
	Pin 1 .....+Power
	Pin 2 .....-Power
	Pin 3 .....+Signal
	Pin 4 .....-Signal
218	Cannon WK6-32S
	Pin 1 .....+Power
	Pin 2 .....-Power
	Pin 3 .....+Signal
	Pin 4 .....-Signal
	Pin 5 .....Calibrate
	Pin 6 .....Calibrate
318	Cannon WK4-32S
	Pin 1 .....+Power/Signal
	Pin 2 .....-Power/Signal
	Pin 3 .....Calibrate
	Pin 4 .....Calibrate

**OPTIONS**

B()	Alternate electrical connector (or wiring)
Y()	Alternate pressure connection
G()	Alternate O-ring material
DB	Increased overpressure rating
DC	Extended temperature operation
DD	Standardized output
DE	Internal calibration
DF	Bleed port
DG	Improved temperature compensation
DH	Special pressure range
DM	Modified FSO (0 to 10 V out requires 15 Vdc input min)
DN	Improved accuracy
DP	Submersible housing/8' direct coupled cable
DQ	Cleaning for oxygen service
EA	Special calibration
NH	Customer specified identification
PW	1/8 DIN digital indicator

