

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.

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
Response Time	Long-Term Stability	≤±0.25% FSO per 6 months
	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
Output Signal	Power Supply Regulation.....	0.1% FSO max (218)
	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

