

Pressure Transmitter

Model #118/218/318

Gage & Absolute

Features

- Stainless steel construction
- Gage, Absolute, Vacuum and Differential pressure formats available
- Cleanable pressure cavity
- Many options available
- Shunt calibration circuit

Applications

- Test stands
 - Engine/Brake
 - Leak Detection
 - Hydraulic
 - Aerospace/
Ground Support
- Laboratory/Research
- Hydraulic control
 - Die Casting
 - Rolling Mills



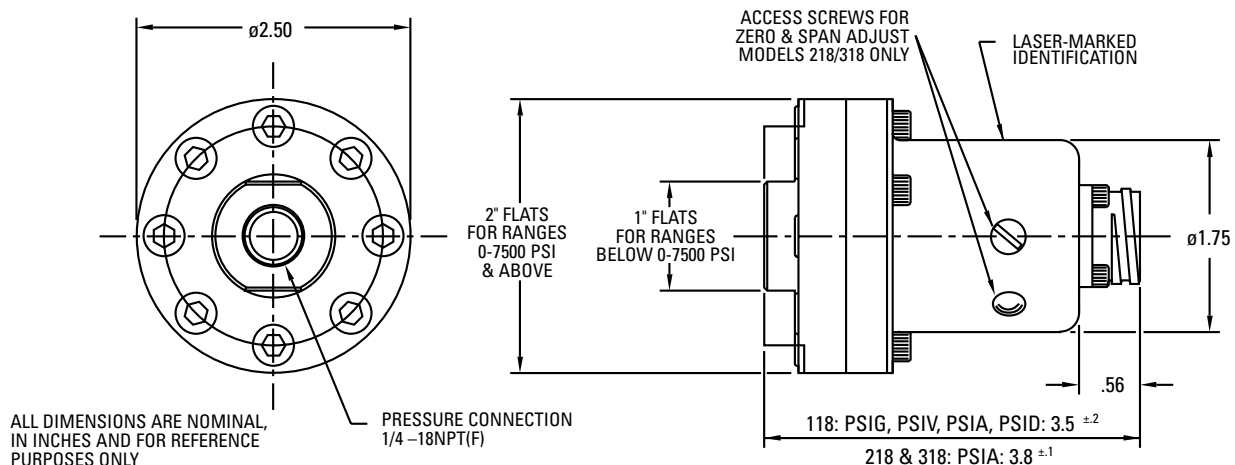
Viatran has designed the "18" Series pressure transmitter as an accurate and reliable sensor for rugged pressure measurement environments. From automotive to aerospace to machine tool industries, the "18" Series rugged design can handle demanding applications ranging from high vibration to noisy environments.

These transmitters are built with bonded foil strain gage technology to provide outstanding reliability and performance from ranges as low as 5 PSI to as high as 15,000 PSI. With 4 pressure measurement formats available, the "18" Series can handle all your pressure applications.

The all-stainless steel construction of the "18" is the first layer of defense against the elements. Add to that potted electronics and options for an Inconel pressure cavity or submersible housing and you have one of the most rugged transmitters on the market.

The "18" Series includes an internal calibration circuit. This feature allows users to calibrate the transmitter without an external pressure source. Modular construction also allows Viatran to easily modify the "18" Series with optional outputs, proof pressures, electrical connectors and pressure ports. The versatile design of the "18" Series makes it easy to tailor these pressure transmitters to meet your specific needs. Call us for more information.

Dimensions



Viatran Model 118/218/318 Specifications

Performance

Full Scale Pressure Range (FSPR)	0 to 5, 10, 15 PSIV 0 to 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)	
Model 118	2-3 mV/V
Model 218	5 VDC
Model 318	16 mA
Resolution	Infinite
Long Term Stability	≤ ± 0.25% FSO per 6 months
Response Time	
Model 118	≤ 1 mSec to reach 90% FSO
Model 218/318	≤ 5 mSec to reach 90% FSO
Zero Balance	
Model 118	Fixed at 0 mV ±2% FSO @ 70°F
Models 218/318	Adjustable to ±10% FSO
Temperature Effect on Zero	≤ ±2.0% FSO per 100°F
Temperature Effect on Span	≤ ±1.0% FSO per 100°F
Compensated Temperature Range	-30°F to +180°F
Operating Temperature Range	-40°F to +250°F
Storage Temperature Range	-50°F to +250°F

Electrical

Supply Voltage	
118	10 to 15 VDC
218	10 to 48 VDC
318	9.5 to 36 VDC
Power Supply Regulation	0.1% FSO maximum (218)
Output Signal	
118: 0-5 & 0-10 PSI	1.6 to 2.4 mV/V ; 2 mV/V typical
118: 0-15 PSI & Above	2.4 to 3.6 mV/V ; 3 mV/V typical
218	0 to 5 VDC
318	4 to 20mA
Load Impedance	
218	≥ 50K Ohms minimum for ≤ 0.1% FSO attenuation
318	800 Ohms maximum 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 Pins 5 & 6 of the connector
318	100% FSO by shorting Pins 3 & 4 of the connector
Span Adjustment	
118	None
218/318	Adjustable to ±10% FSO
Bridge Resistance	350 Ohms nominal (118 Only)
Insulation Resistance	> 1000 Meg Ohms to case ground

Electrical Connection

Model 118	Cannon WK4-32S
Pin 1	+ Power
Pin 2	- Power
Pin 3	+ Signal
Pin 4	- Signal
Model 218	Cannon WK6-32S
Pin 1	+ Power
Pin 2	- Power
Pin 3	+ Signal
Pin 4	- Signal
Pin 5	Calibrate
Pin 6	Calibrate
	Pins 2 & 4 are common
Model 318	Cannon WK4-32S
Pin 1	+Signal
Pin 2	-Signal
Pin 3	Calibrate
Pin 4	Calibrate

Mechanical

Pressure Connection	1/4" NPT Female
Proof Pressure	1.5 times FSPR or 20K PSI
Burst Pressure	5 times FSPR or 22K PSI
Weight	22 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 Buna N O-Ring
Position Sensitivity	Mounts in any position with no effect on zero

Options

Codes	Description
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
DJ	Submersible housing/detachable connector
DL	Inconel pressure cavity
DM	Modified FSO (0 to 10 V out requires 15 VDC input minimum)
DN	Improved accuracy
DP	Submersible housing/8' direct coupled cable
DQ	Cleaning for oxygen service
EA	Special calibration
MS	Alternate wetted parts (Inconel diaphragm, 316SS pressure cap)
NH	Customer specified identification
PW	1/8 DIN digital indicator

Accessories

Mounting Bracket
Mating Electrical Connector
Rubber Protective Cover
Pressure Indicating System