Features

- ❒ **Low dP Range, High Line Pressure**
- ❒ **Ranges From ±8.0 to ±10,000 psi FS**
- ❒ **Wet-Wet Capability**
- ❒ **Line Pressure to 10,000 psig**
- ❒ **±5Vdc or 4-20mA Output**
- ❒ **Stainless Steel Pressure Cavities**
- ❒ **Fully Sealed Housing**

The P370 pressure transmitters are designed to make low differential pressure measurements at high static line pressures in harsh environmental conditions. The P370, operating from unregulated 9 to 55Vdc, is available with 4-20mA, ±5Vdc or offset output over full scale pressure ranges from ±8 to ± 10,000 psid. Digital output via USB or Serial are also available on request. The output shift due to static pressure will not exceed 3% of full scale, up to a line pressure of 10,000 psig. The P370 will accept both gases and liquids directly at the sensing diaphragm; there are no internal isolation fluids to slow the sensor response or cause excessive temperature error shifts.

The pressure transmitter is ideal for flow or pressure drop measurements in high pressure hydraulic systems. Its sealed housing and rugged construction allow it to be used in harsh environments.

Sensor wetter parts include 410 stainless steel suitable for inert gases and hydrocarbons. 316 SST for water-based fluids, Inconel and Hastelloy for corrosive applications along with a number of plating options are also available.

The P370 is available in three output configurations: 4-20 mA current sink output, DC output and isolated DC output. The 4-20 mA output version is a true-two-wire system which will operate over a supply voltage of 9 to 55 Vdc. Zero and span controls are available for external adjustments behind a back plate.

The DC version is a direct replacement for the Vdc signal.

The three digital output configurations: USB or ±5 Vdc along with digital output via the serial port.

The pressure ports are 5/16”-24 UNJF-3B with a D38999 electrical connector. Other options for pressure ports and electrical connectors are available.

The P370 is ideal for:

- Core Testing Applications
- Hydraulic Systems
- High Line Pressures and Low dP

Specifications

General Specifications -

Type: High Line, Differential or Gage Pressure Transducer

Full Scale Ranges: ±8 to ±10,000 PSID Other Eng. Units available

Accuracy: ±0.5% FS includes non-linearity, hysteresis and non-repeatability. ±1.0% FS above 5K PSI

Over Pressure: 200% FS to 10,000 psid (Max. 0.5% Output shift)

Maximum Line Pressure & Error: 10,000PSI 1%/1000, 3% Max.

Pressure Ports: 5/16-24" UNF (Other options available)

Environmental Specifications -

Operating Temp.: -65ºF to 250ºF (-54ºC to 121ºC)

Compensated Temp.: 0 to 160ºF (-17ºC to 71ºC) OR -65ºF to 250ºF (-54ºC to 121 ºC)

Temperature Error: ±0.7% FS over Compensated temp range

Sensor Physical Specifications -

Pressure Media: Compatible liquids and gases with configured Alloy picked

O-Rings: Buna-N (STD), other compounds available

Weight: 1.43 lbs

Approx. Size: 4.89" x 2.03" x 1.82"

Pressure Cavity Volume: 4e-3 cu. In., each port

Volumetric Displacement: 3e-4 cu. In. at FS

Electrical Connector: D38999 A35 other options available

Power Requirements -

Power Supply P365: 9 to 55 Vdc

Current Draw 3mA – 20mA typ.

Signal Output -

P370 4-20 mA Output: 4 to 20 mA

P370 DC Voltage Output: ±5 Vdc @ 0.5mA

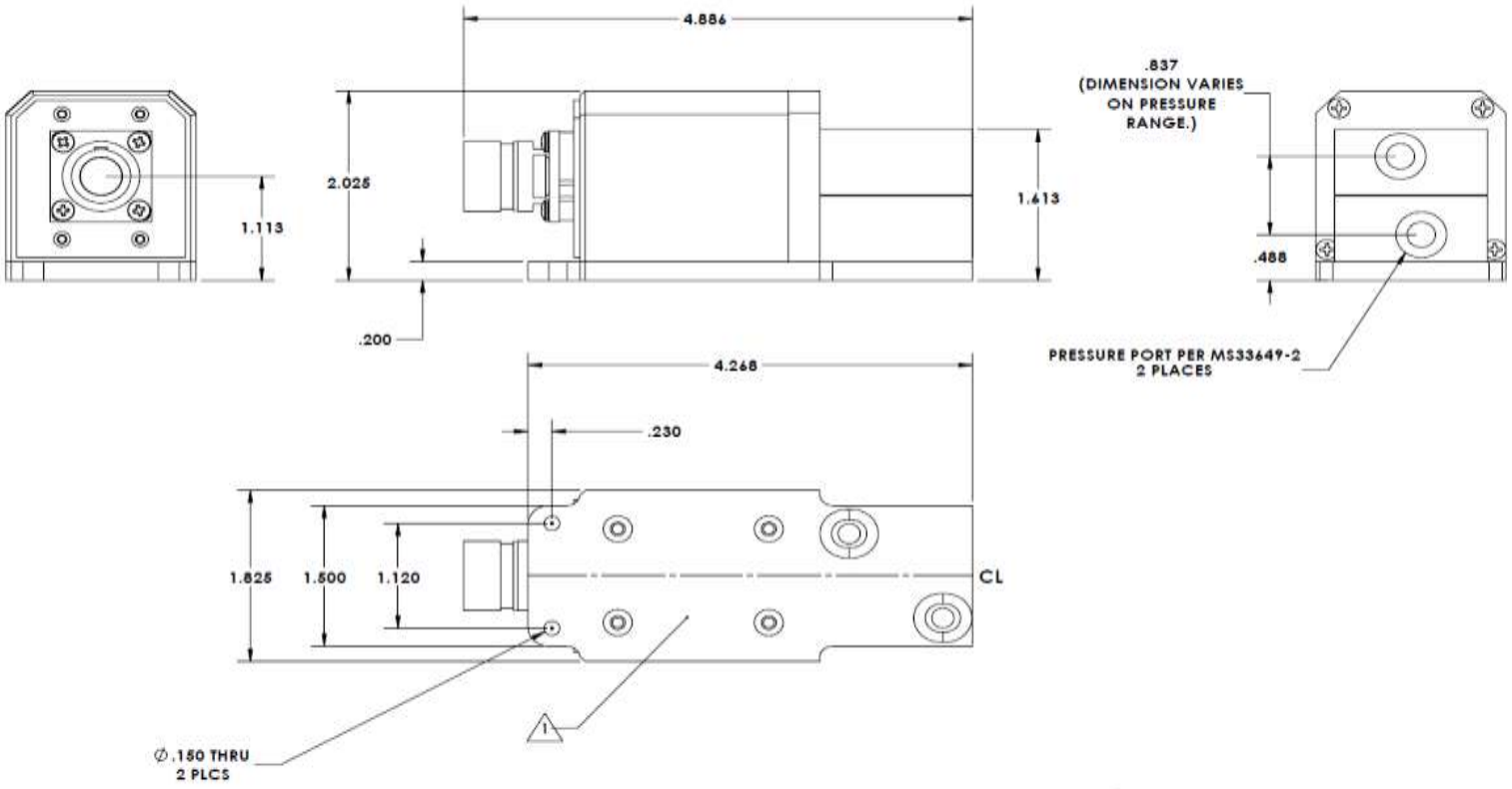
Zero & Span Adjustment: Adjustable to ±5% FS

Frequency Response: Adjustable to 5% FS

Line Regulation: Low Pass Filter at 250 Hz

Output Noise: 0.02%

Outline and Wiring Drawing



1 DIFFERENT CONFIGURATIONS AVAILABLE FOR BOTTOM PLATE

NOTES:

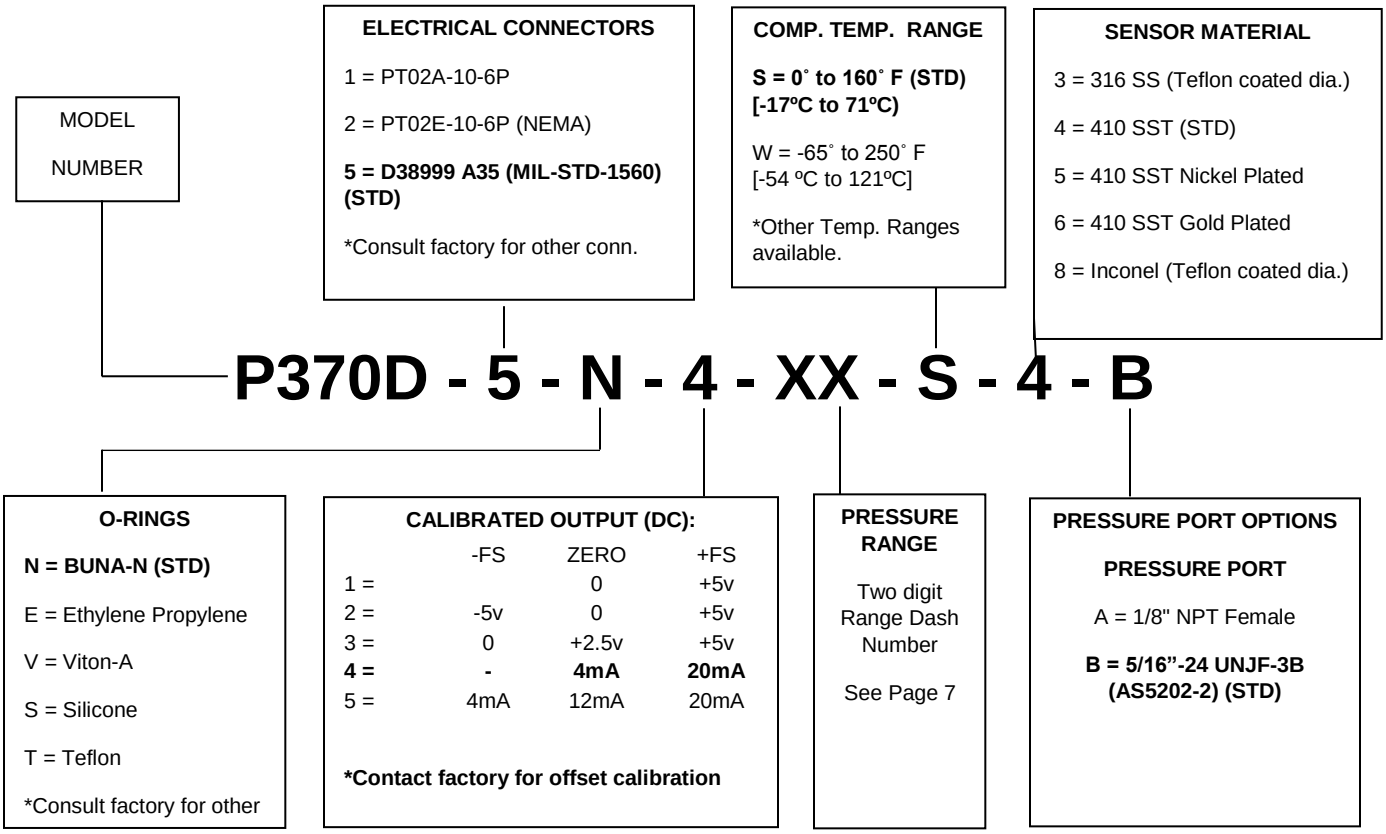
D38999 A35 / PT02 Pin	Output -1, -2, -3 (Volts DC)	Output -4, -5 (mA DC)
1 / A	Signal +	+In
2 / B	Output +	-In
3 / C	Output -	
4 / D	Signal -	
5 / E	NC	
6 / F	NC	

P370 Standard Wiring

Modular base plate for easy mounting

The P370 is fully customizable down to the base plate with customized mounting hole locations to fit your exact specification. Contact the factory for details if you would like the mounting holes in different locations.

Ordering Information



Special Requirements?

With over 3000 custom specifications already created, we are confident we can customize a solution to fit your needs. Form factor, housing, pressure ports, electrical connectors, outputs and calibrations are all customizable. Contact our factory via email or phone today!

Ordering Information - Range Chart

Range Code	Psi	In Hg	In H2O	KPa	Torr	CM H2O
38	8.0	16.0	222.0	55.0	414.0	560.0
40	12.5	25.0	350.0	86.0	650.0	880.0
42	20.0	41.0	550.0	140.0	1030.0	1400.0
44	32.0	65.0	890.0	220.0	1650.0	2250.0
46	50.0	102.0	1400.0	350.0	2580.0	3500.0
48	80.0	160.0	2220.0	550.0	4140.0	5600.0
50	125.0	250.0	3500.0	860.0	6500.0	8800.0
52	200.0	410.0	5500.0	1400.0	10300	14000
54	320.0	650.0	8900.0	2200.0	16500	22500
56	500.0	1020.0	14000	3500.0	28500	35000
58	800.0	1600.0	22200	5500.0	41400	56000
60	1250.0	2500.0	35000	8600.0	65000	88000
62	2000.0	4100.0	55000	14000	103000	140000
64	3200.0	6500.0	89000	22000	165000	225000
66	5000.0	10200	140000	35000	258000	350000
68	8000.0	16000	222000	55000	414000	560000
70	10000	20300	277000	68900	517000	703000

- Units can be calibrated in other engineering units as well. Contact the factory for details.
- For pressures in between range codes, pick the higher range code

Updated 02/18/21