

## Features



- Low dP Range, High Line Pressure**
- Ranges From  $\pm 8.0$  to  $\pm 10,000$  psi FS**
- Wet-Wet Capability**
- Line Pressure to 10,000 psig**
- $\pm 5$ Vdc or 4-20mA Output (P365)**
- USB or Serial (P368)**
- Stainless Steel Pressure Cavities**

The P365 and P368 pressure transducers are designed to make low differential pressure measurements at high static line pressures. The P365, operating from unregulated 9 to 55Vdc, is available with 4-20mA,  $\pm 5$ Vdc or isolated  $\pm 5$ Vdc output over full scale pressure ranges from  $\pm 8$  to  $\pm 10,000$  psid.

The P368 version is available with digital output via USB or Serial. The output shift due to static pressure will not exceed 3% of full scale, up to a line pressure of 10,000 psig. The P365 and P368 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 transducer is ideal for flow or pressure drop measurements in high pressure hydraulic systems. Its compact design 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 and Inconel for corrosive applications along with a number of plating options are also available.

The P365 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, and the wiring may be via connector or pigtail options.

The DC version is a direct replacement for the VDC signal. The isolated DC output version provides the same  $\pm 5$  VDC signal, isolated from the power supply by 100 MOhms.

The P368 is available in three digital output configurations: USB or  $\pm 5$  Vdc along with digital output via the serial port.

The P365 comes standard with 1/8" NPT. A 5/16" UNF port option is also available. For other pressure port options please contact our Sales Engineers.

### **The P365/P368 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

**Electrical Connector:** PT02A-10-6P (STD), other options available

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

**Power Requirements -**

**Power Supply**

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

**P365:** 9 to 55 VDC

**P368 (Serial):** 7 to 55 VDC

**P368 (USB):** 5 VDC

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

**Current Draw**

**P365 Options 1, 2 & 3:** 3mA, 3 Wire

**P365 Options 4 & 5:** 4mA

**P365 Options 6, 7 & 8:** 7mA, 4 Wire

**P368 Options 9 & Z:** 10mA, typ

**P368 Options X & Y:** 7mA, typ

**Maximum Line Pressure Error:** 1%/1000, 3% Max.

**Signal Output -**

**Pressure Ports:** 1/8" Female NPT (STD)  
5/16" UNF (Optional)

**P365 4-20 mA Output:** 4 to 20 mA

**P365 DC Output:** ±5 VDC @ 0.5mA

**Environmental Specifications -**

**Operating Temperature:** -65°F to 250°F (-54°C to 121°C)

**P368 USB Output:** Digital

**P368 Serial Output:** ±5 VDC @ 0.5mA & Digital

**Compensated Temperature:**

- Standard: 40°F to +140°F (4°C to 60°C)
- Optional: 0°F to +160°F (-18°C to 71°C)
- Optional: -40°F to +230°F (-40°C to 110°C)
- Optional: -65°F to +250°F (-54°C to 121°C)

**P365 Zero Balance:** Adjustable to ±5% FS

**P365 Span:** Adjustable to 5% FS

**Temperature Error:** ±0.5% FS over standard range.

**P368 Zero and Span:** Digitally Adjustable

**Sensor Physical Specifications -**

**Pressure Media:** Fluids and gases compatible with 410SST, 316SST or Inconel.

**Frequency Response:** -3 db

**O-Rings:** Various – See ordering chart

**Line Regulation:**

**Weight:** 24 Oz

**Output Noise:** 2 mvrms

**Approx. Size:** 4½" x 1¾" x 1½"

**Insulation Resistance:** 100 MOhms, any terminal to case

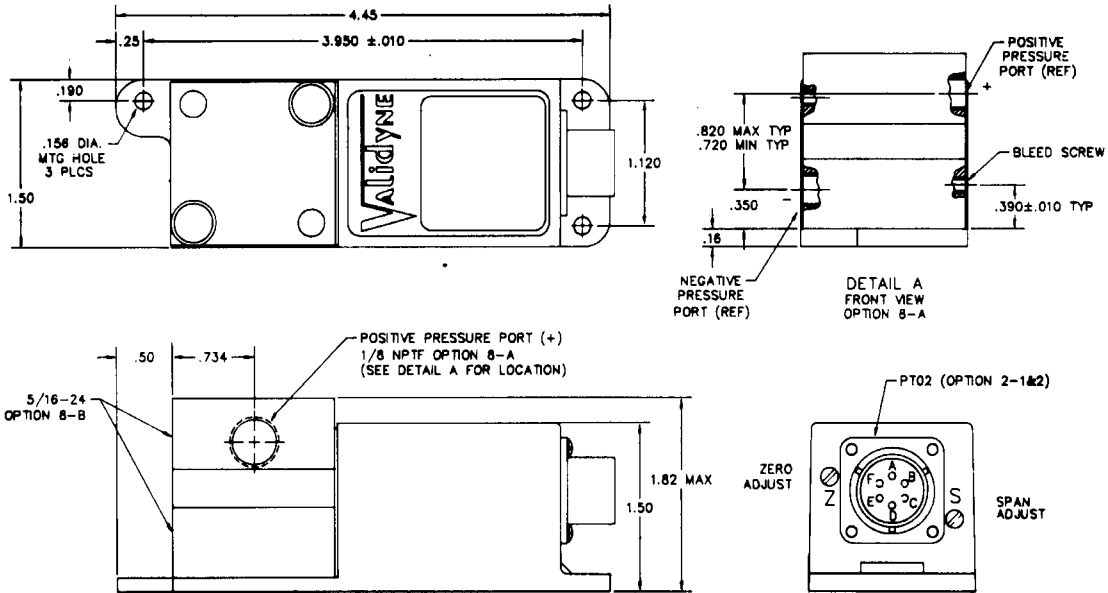
**Pressure Cavity Volume:** 4e-3 cu. In., each port

**RS485/USB:** 9600 baud 8 N 1 protocol

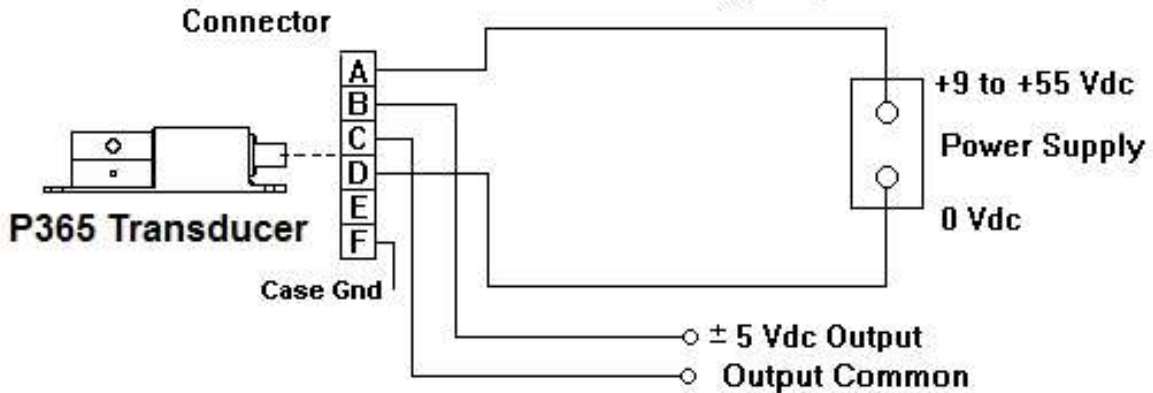
**Volumetric Displacement:** 3e-4 cu. In. at FS

String commands and responses

## Outline Drawing & Connections

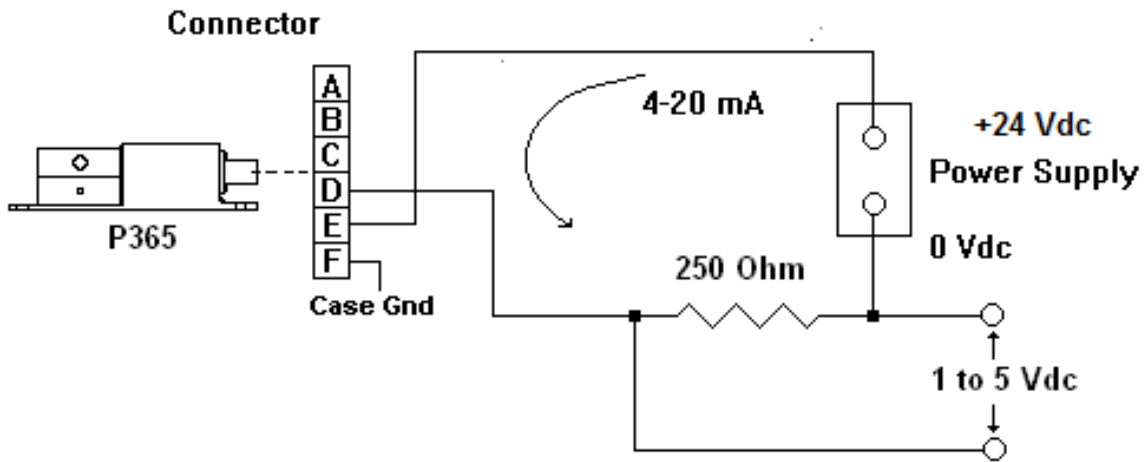


### Transducer Wiring Diagram



Non-Isolated Pigtail Color Code:	Isolated Pigtail Color Code:
Red = + Power    Yel = - Power Orn = + Signal    Gry = Output Common Grn = Case Gnd	Brn = + Power    Vio = - Power Orn = + Signal    Yel = - Signal Grn = Case Gnd

**Outline Drawing & Connections**



P365 mA Output Connection

**Electrical Connector for  
Serial (RS485) Option (See ordering info):**

- A: + Power
- B: + Signal
- C: - Signal (Common)
- D: - Power (Common)
- E: Tx Data
- F: Rx Data

**Electrical Connector for  
USB Option (See ordering info):**

- A: No Connection
- B: - Power
- C: - Data
- D: + Data
- E: + Power
- F: N/C

**Ordering Information – P365**

**ELECTRICAL CONNECTORS**

1 = PT02A-10-6P (STD)  
 2 = PT02E-10-6P (NEMA)  
 4 = 1/2 NPT 24" LEADS 24 Gage  
 5 = D38999 A35 (MIL-STD-1560)  
 \*Consult factory for other conn.

**COMP. TEMP. RANGE**

**G = 40F to +140F (4°C to 60°C) STD**  
 S = 0F to +160F (-18°C to 71°C)  
 U = -40F to 230F (-40°C to 110°C)  
 W = -65F to +250F (-54°C to 121°C)  
 C = Customer specified  
 \*Other Temp. Ranges available.  
 \*\* -U and -W = Not for all configurations.

**SENSOR MATERIAL**

3 = 316 SS (Teflon coated dia.)  
**4 = 410 SST (STD)**  
 5 = 410 SST Nickel Plated  
 6 = 410 SST Gold Plated  
 8 = Inconel (Teflon coated dia.)

MODEL NUMBER

**P365D - 1 - N - 1 - XX - G - 4 - A**

**O-RINGS**

**N = BUNA-N (STD)**  
 E = Ethylene Propylene  
 V = Viton-A  
 S = Silicone  
 T = Teflon  
 \*Consult factory for other

**CALIBRATED OUTPUT (DC):**

	ISO	-FS	ZERO	+FS
1 =			<b>0</b>	<b>+5v</b>
2 =		-5v	0	+5v
3 =		0	+2.5v	+5v
4 =		-	4mA	20mA
5 =		4mA	12mA	20mA
6 =	X	-	0	+5Vdc
7 =	X	-5Vdc	0	+5Vdc
8 =	X	0	+2.5Vdc	+5Vdc

**PRESSURE RANGE**

Two digit Range Dash Number  
 See Page 7

**PRESSURE PORT OPTIONS**

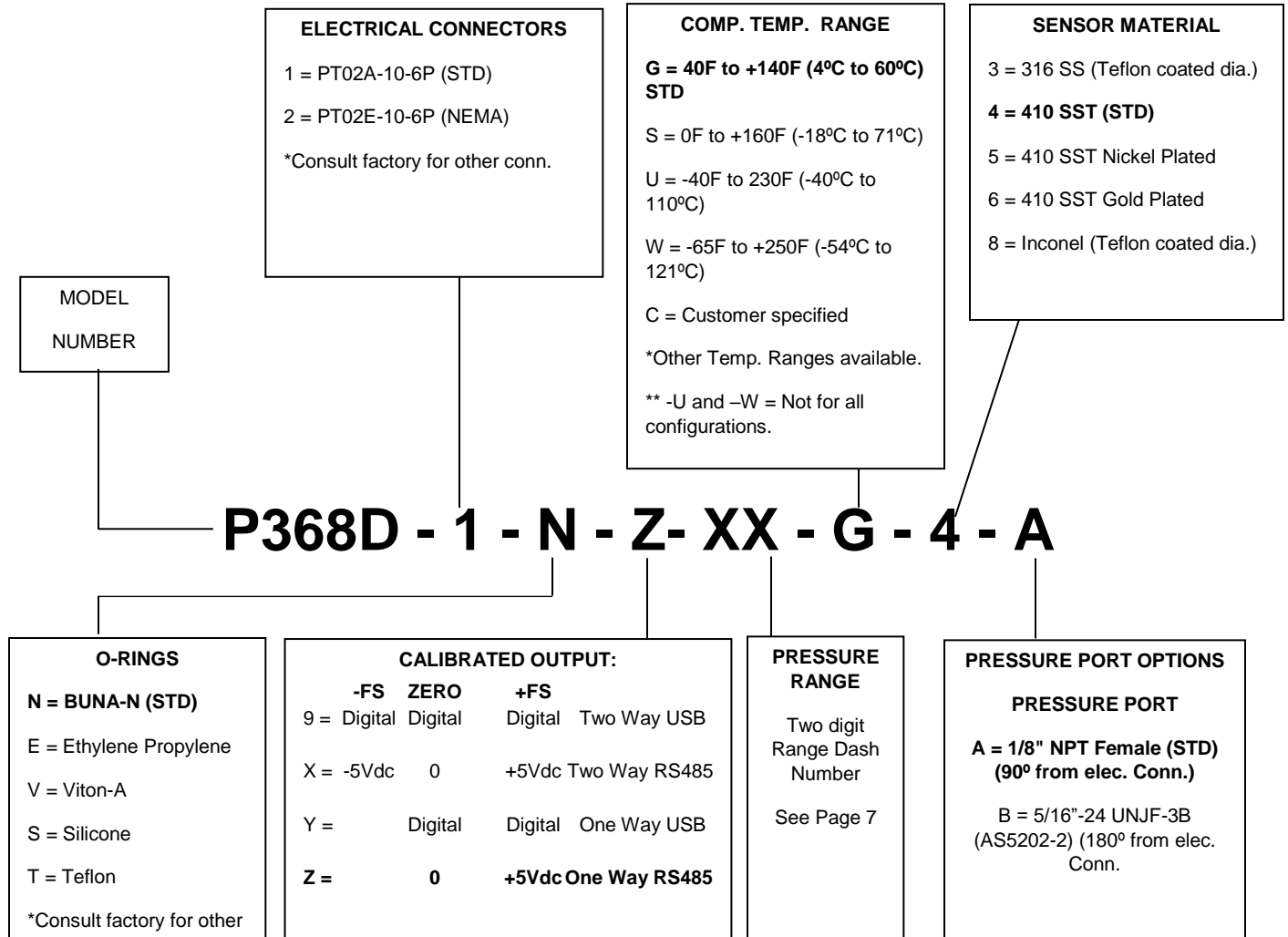
**PRESSURE PORT**

**A = 1/8" NPT Female (STD) (90° from elec. Conn.)**  
 B = 5/16"-24 UNJF-3B (AS5202-2) (180° from elec. Conn.)

**Special Requirements?**

With over 3000 custom specifications already 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 – P368



### Special Requirements?

With over 3000 custom specifications already 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 05/10/21