



Features

- USB Interface for Digital Operation with PC**
- Excellent Stability Over Wide Thermal Range**
- 0.25% FS Accuracy, 0.5% Max Temperature Error**
- For Liquid or Gas Service**
- 316 SS and Inconel Wetted Parts Available**
- Full Scale Ranges from 3.5 In H₂O**
- USB Drivers and Data Logging Software Included**

The P61 is a digital differential pressure transmitter designed for industrial pressure measurement applications. The on-board microprocessor provides high accuracy and improved stability in changing thermal environments.

Communication and power via USB interface provides remote zero and span adjustment as well as digital pressure readings in engineering units. Drivers and software for the USB interface are included.

The P61 is designed for a wide variety of low pressure measurements where high resistance to vibration and superior stability through temperature change is required. The P61 will accept both liquids and gases directly at the sensing diaphragm.

The P61 provides USB digital pressure readings directly in the calibrated engineering units as specified by the user. Temperature readings in degrees Fahrenheit are also available to read.

The zero and full-scale outputs are set by USB digital command. No potentiometer adjustments are required to calibrate.

The P61 has 1/8 inch female NPT pressure connections and measures just 1.5 x 1.5 x 5 inches overall.

The P61 is powered by the +5 Vdc USB and draws just a few mA with either a USB micro connector that will accept standard USB cables or a PT06 connector with a modified USB cable for a more robust connection.

The P61 is compatible with LabVIEW, Visual Basic and any other data acquisition program using COM serial ports. LabVIEW vi's and serial protocol documentation are available for free via our support site.

The included USB-COM Utility software lets you zero and span the unit as well as get pressure, temperature and calibration data from the P61. Graphing capabilities are also available in the premium version of the software.

Pressure port placement is available in two options, either with the pressure port and the connector at a 90 ° angle as shown in the picture above or with the pressure port and the connector at a 180° angle depending on your application and needs.

The P61 is ideal for:

- **Laboratory Pressure measurement**
- **Level Measurements**
- **Hydraulic Pressures**
- **Flow Measurement**

Specifications

General Specifications -

Type: High Line, Differential or
Gage Pressure Transducer

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

Full Scale Ranges: ±0.125 to ±3,200 PSID
Other Eng. Units available

Power Requirements -

Power Supply: +5Vdc supplied by PC

Accuracy: **P61D:** ±0.25% FS includes
non-linearity, hysteresis
& non-repeatability. ±0.1% FS
optional.

Current Draw: 10mA, typ.

Over Pressure: **P61D:** 200% FS up to 3,200 psid
P61A: 20 psia or 200% FS.

Output: Digital Readings via USB

P368 Zero and Span: Digitally Adjustable

Pressure Ports: **P61D:** 1/8" Female NPT
P61A: 5-16-24 UNF-2B (Other
Options available)

Output Noise: 2 mvrms

Compensated Temp.:

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

Insulation Resistance: 100 MOhms, any terminal to
case

Temperature Error: ±0.5%FS over 0 to 160°F
±0.7%FS over -65°F to 250°F

USB: 9600 baud 8 N 1 protocol
String commands and
responses

Sensor Physical Specifications -

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

Software: Free Data logging software
Optional Graphing Module

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

Protocol: Communication protocol
available for custom
programming. LabVIEW vi's
available as well.

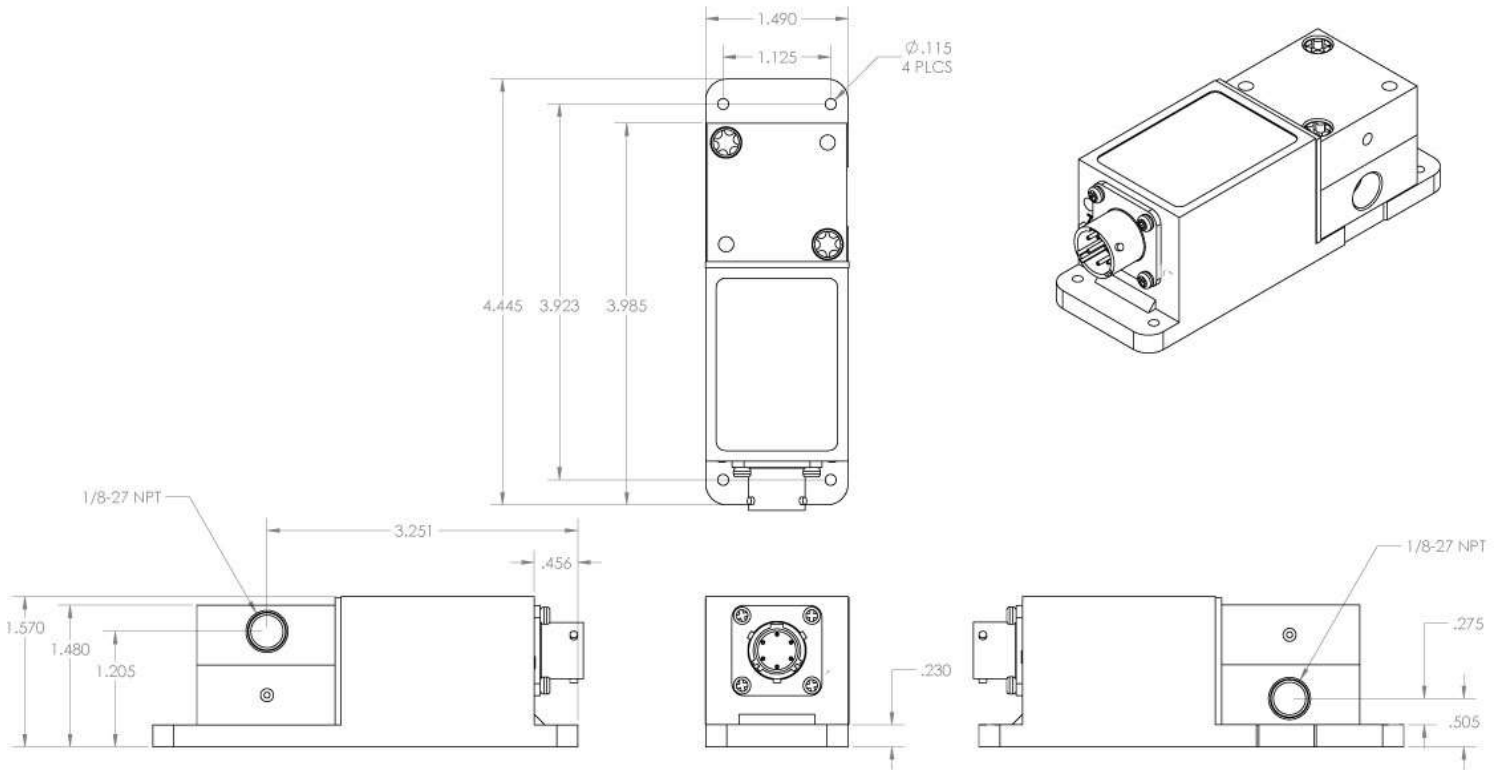
Weight: 24 Oz.

Approx. Size: 4½" x 1¾" x 1½"

Pressure Cavity Volume: 0.012 cu in, each port

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

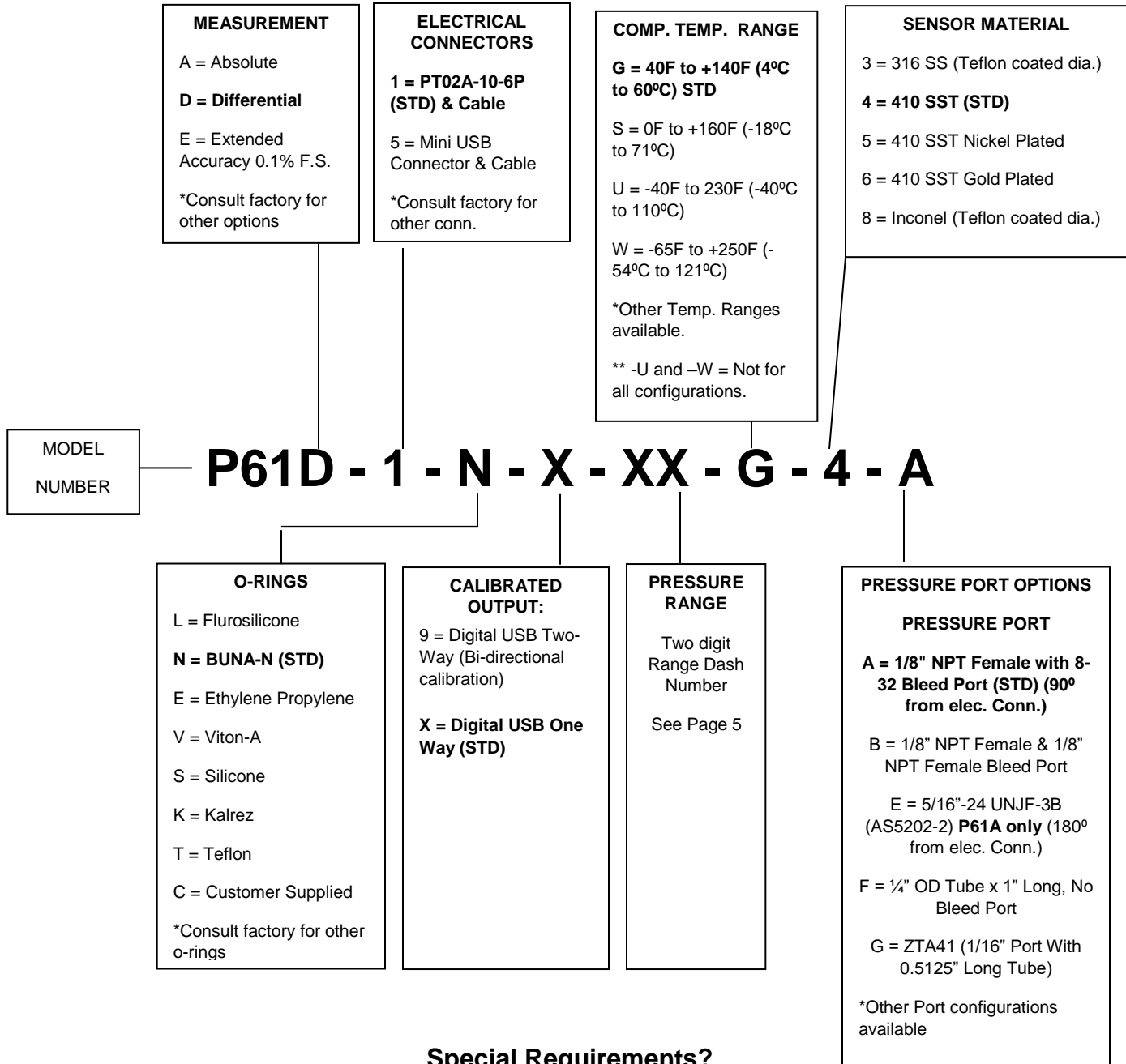
Outline Drawing & Connections



Electrical Connector for Connector option(See ordering info):

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

Ordering Information – P61



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 | InHg | InH2O | KPa | Torr | cmH2O |
|------------|--------|--------|--------|--------|--------|--------|
| 20 | 0.125 | 0.25 | 3.5 | 0.86 | 6.5 | 8.8 |
| 22 | 0.20 | 0.41 | 5.5 | 1.40 | 10.3 | 14.0 |
| 24 | 0.32 | 0.65 | 8.9 | 2.2 | 16.5 | 22.5 |
| 26 | 0.50 | 1.02 | 14.0 | 3.5 | 25.8 | 35.0 |
| 28 | 0.80 | 1.6 | 22.2 | 5.5 | 41.4 | 56.0 |
| 30 | 1.25 | 2.5 | 35.0 | 8.6 | 65.0 | 88.0 |
| 32 | 2.0 | 4.1 | 55.0 | 14.0 | 103.0 | 140.0 |
| 34 | 3.2 | 6.5 | 89.0 | 22.0 | 165.0 | 225.0 |
| 36 | 5.0 | 10.2 | 140.0 | 35.0 | 258.0 | 350.0 |
| 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 |

- 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 5/10/21