

# The P66

## Digitally-Compensated Pressure Transducer for CAN Bus



The Validyne model P66 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 via CAN Bus provides remote zero and span adjustment as well as digital pressure readings in engineering units.

The P66 is designed for a wide variety of low pressure measurements where high resistance to vibration and superior stability through temperature change is required. The P66 will accept both liquids and gases directly at the sensing diaphragm.

It provides digital readings directly in engineering units of the calibrated pressure. The zero and full-scale outputs are set by CAN Bus digital command. No potentiometer adjustments are required to calibrate.

Pressure readings via CAN Bus are available in engineering units. The temperature reading at the sensor is also available via Can Bus.

The P66 has 1/8 inch female NPT pressure connections and measures just 1.5 x 1.5 x 5 inches overall. It is powered by +5 to +55 Vdc and draws just a few mA.

- CAN Bus Interface for Digital Operation with PC
- Excellent Stability over Wide Thermal Range
- 0.25% FS Accuracy, 0.7% Max Temperature Error
- For Liquid and Gas Service
- FS Ranges from 2.22 In H2O
- Compatible with CAN Bus Software



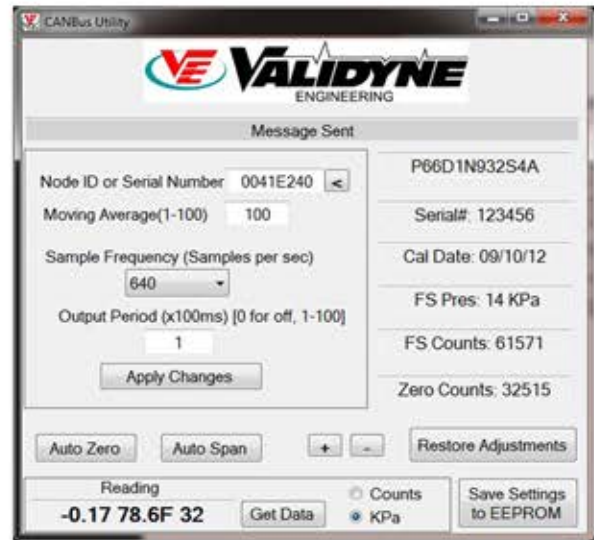
P66 Utility Program Screenshot

The P66 is ideal for:

- Automotive Pressure Measurement
- Level Measurements
- Engine Test Cells
- Test Track Pressure Measurements



# P66 SPECIFICATIONS



P66 Utility Program Included

## GENERAL SPECIFICATIONS

### Ranges:

**P66D:** .....± 0.08 psid to ± 3200 psid  
**P66A:** .....0 to 0.08 psia to 0 to 3200 psia

### Accuracy:

**P66D:** .....± 0.25% FS, includes non-linearity, hysteresis and non-repeatability  
**P66A:** .....± 0.50% FS as above

### Overpressure:

**P66D:** 200% FS up to 4000 psi maximum with less than 0.5% FS output shift  
**P66A:** 20 psia or 200% FS whichever is greater, up to 4000 psia maximum, for less than 0.5% zero shift

### Line Pressure:

**P66D:** 3200 psig maximum with zero shift less than 1%/Kpsi

### Pressure Ports:

**P66D:** 1/8" female NPT with 8-32 bleed screw & gasket, STD  
**P66A:** 5/16-24 UNF-2B with 1/8" male NPT adapter included.

## ENVIRONMENTAL SPECIFICATIONS

**Operating Temperature:** 0 to +160 F  
**Compensated Temperature:** 0 to +160 F  
**Temperature Error:** ±0.7% FS over operating temperature range of 0F to +160F

## SENSOR PHYSICAL SPECIFICATIONS

**Pressure Media:** Liquids & gases compatible with 410 SST and Inconel  
**O-Rings:** Buna-N Standard, other compounds available  
**Pressure Cavity Volume:** 4 e-3 cu in, each port  
**Volumetric Displacement:** 3 e-4 cu in at FS  
**Weight:** 16 Oz.

## POWER REQUIREMENTS

**Power Supply:** +5 to +55Vdc  
**Current Draw:** 5 mA, typ  
**Output:** Digital readings via CAN Bus  
0 to ±5 Vdc analog  
**Zero Balance:** Auto-zero via CAN bus  
**Span:** Set via CAN bus  
**Output Noise:** 2 mv RMS  
**Insulation Resistance:** 100 MOhms, any terminal to case  
**CAN Bus:** CAN Standard 2.0 Parts A & B

