



# Diaphragm Manometer; 20 milliTorr To 1000 Torr

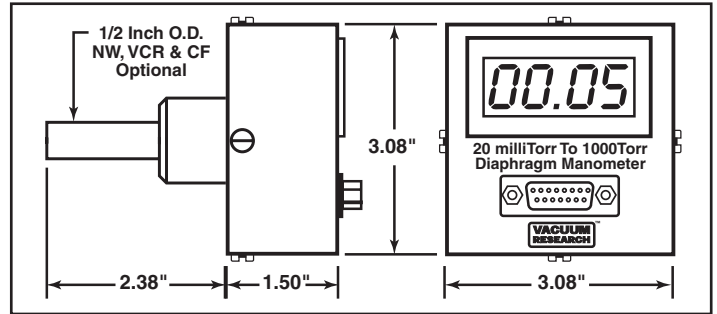


- 20 milliTorr To 1000 Torr Standard Range
- 316L S.S. Diaphragm Measures Gas Or Liquid
- Select Transmitter, Indicator or Controller
- All 3 Styles Have 0-10 V Plus 4-20 mA Outputs
- Easy To Use; No Keyboards or Scrolling Menus
- Fast Response; Less Than 1 Second Full Scale
- All Popular Flanges Available; NW, VCR, CF

The Vacuum Research Diaphragm Manometers are compact vacuum measurement and control instruments that are unaffected by gas composition. The diaphragm is 316L stainless steel and can measure liquid or gas under vacuum.

Response time is less than 1 second for full scale and instruments are available with a variety of flanges including VCR and KF or NW styles.

The Dual Set Point option provides set point values adjusted from the front panel and displayed on the meter. Push-to-set switches simplify display of the set point vacuum.



## Specifications

**Standard Range:** 0.02 to 1000 Torr **Optional Range:** 0.02 to 1300 mbar

### Readings From 20 milliTorr to 30.0 Torr

**Resolution:** ± 10 milliTorr **Sensitivity:** 10 milliTorr  
**Accuracy:** ± 20 milliTorr **Hysteresis:** Less than 10 milliTorr,

### Readings From 30.0 Torr to 1,000 Torr:

**Resolution:** ± 0.1 Torr **Sensitivity:** 0.1 Torr,  
**Accuracy:** ± 1 Torr **Hysteresis:** Less than 0.1Torr,

**Display:** 4 digit green LED; characters 0.56 in. (15 mm) high.

**Calibration:** Any gas, liquid or vacuum compatible with sensor materials.

**Response Time:** For increase in pressure less than 1 second.  
 For decrease in pressure below 100 mTorr less than 10 seconds.

**Analog Outputs:** 2 simultaneous linear signals

1.) 0 to 10 Volt DC, linear, for 0 to 1000 Torr (1mv=100 mTorr)

2.) 4-20 mA. 4mA is always high vacuum ("zero" pressure). But 20 mA can be jumper selected by the user to be 1, 5, 10, 50 or 1000 Torr. Shipped with jumper in 1000 Torr position unless otherwise requested.

**Optional Set Points:** SPDT (Form C) max current: 250 mA.  
 Maximum power 350mw, Maximum voltage: 250 V AC/DC.

**Set Point Range:** Full range of instrument. 20 mT to 1,000 Torr

**Materials:** Diaphragm is 316L Stainless Steel. Other parts in contact with the process are 300 Series Stainless.

**Power:** Any voltage from +15 to +35 VDC unreg; Less than 250 mA.

**Wattage:** Less than 1 Watt for indicator; 2 Watts with set points.

**Connector:** 15 pin DB 15

**Temperature Effects:** When changes occur in ambient temperature between 0 °C and 50 °C, reading will change no more than ±0.02% per °C.

**Bakeout Temperature:** Instrument can be baked to 100 °C (212 °F) in air or vacuum.

**Weight:** Net : 0.75 lbs. (0.34 kg) Ship: 1.5 lbs. (0.68 kg)

**Maximum Pressure:** Pressure in excess of 1,000 Torr (5 psig) may damage the diaphragm.

## Ordering Information Select from 3 Styles; All With Linear 0-10 V and 4-20 mA Outputs

### Transmitter Analog Output only No Display or Setpoints

**Diaphragm Manometer** with 316L S.S diaphragm. Range of 50 mTorr to 800 Torr. Analog outputs of 0 to 10 VDC and 4-20 mA. Power required is +15 to +35 VDC, unregulated. No display or set points for process control.

With 1/8 NPT P/N: 902368.....	\$570.
With 1/2" O.D. Stem P/N: 902356.....	\$570.
With NW-16 flange P/N: 902344.....	\$614.
With NW-25 flange P/N: 902357.....	\$614.
With VCR-4 female P/N: 902347.....	\$636.
With VCR-6 female P/N: 902358.....	\$636.
With VCR-8 female P/N: 902359.....	\$636.
With 1.33 inch CF P/N: 902360.....	\$614.
With 2.75 inch CF P/N: 902361.....	\$614.

### Indicator Analog Output and Display No Setpoints

**Diaphragm Manometer** with 316L S.S diaphragm. Range of 50 mTorr to 800 Torr. Analog outputs of 0 to 10 VDC and 4-20 mA. Four place green LED display .56 inch high. Power required is +15 to +35 VDC, unregulated. No set points for process control.

With 1/8 NPT P/N: 902369.....	\$645.
With 1/2" O.D. Stem P/N: 902350.....	\$645.
With NW-16 flange P/N: 902345.....	\$689.
With NW-25 flange P/N: 902351.....	\$689.
With VCR-4 female P/N: 902348.....	\$711.
With VCR-6 female P/N: 902352.....	\$711.
With VCR-8 female P/N: 902353.....	\$711.
With 1.33 inch CF P/N: 902354.....	\$689.
With 2.75 inch CF P/N: 902355.....	\$689.

### Controller Analog Output & Display Plus 2 Adjustable Set Points

**Diaphragm Manometer** with 316L S.S diaphragm. Range of 50 mTorr to 800 Torr. Analog outputs of 0 to 10 VDC and 4-20 mA. Four place green LED display .56 inch high. Power required is +15 to +35VDC unregulated. Digital display & 2 adjustable set points included.

With 1/8 NPT P/N: 902370.....	\$735.
With 1/2" O.D. Stem P/N: 902362.....	\$735.
With NW-16 flange P/N: 902346.....	\$779.
With NW-25 flange P/N: 902363.....	\$779.
With VCR-4 female P/N: 902349.....	\$801.
With VCR-6 female P/N: 902364.....	\$801.
With VCR-8 female P/N: 902365.....	\$801.
With 1.33 inch CF P/N: 902366.....	\$779.
With 2.75 inch CF P/N: 902367.....	\$779.

**Accessories:** Power supply 90 to 240 VAC in. 15 VDC out P/N V104124.....\$51.

Cable: DB 15 connector on each end. Add length in ft. to P/N. P/N 902080-XXX Ft. ....\$45. + \$1. per foot