



Photo shows the dual set point controller with standard enclosure on the left, and indicator in the 1/4 DIN enclosure on the right.

These compact vacuum measurement and control instruments offer the precision and high resolution of digital electronics at the same price as analog instruments. Our extremely rugged sensor is constructed with a solid, inert, noble metal that maintains its calibration over long periods. Because no gold is used, these gauges are compatible with both mercury and oil pumps. The low 125°C operating temperatures in our Pirani type gauge tube (half that of thermopile gauges), enhances stability as does a unique temperature compensation network. Gauge tubes are matched and can be replaced without recalibration, and they can withstand working pressures to 300 psi, tested to 1200 psi.

Specifications

Pressure Range: 1 to 2000 milliTorr (~ 0 to 2 mmHg.)

Calibration: Air or Nitrogen.

Accuracy: Better than 5% of value or ± 3 mTorr, whichever is larger.

Response Time: 0.3 second time constant.

Display: 3 1/2 Digit Green Backlit LCD

Analog Output: 0 to 2.000 Volts into 2000 Ohm load or higher. 2 pin connector included. 4 to 20 mA and 0 to 10 VDC output in addition to 0 to 2.000 Volt D.C. available for instruments in 1/4 DIN enclosure.

Gauge Tube: Standard gauge tubes have a 1/8 NPT male thread or fit into quick connects sized for 1/8 inch pipe (0.405" dia.) NW, VCR and Mini Conflat® available. Internal Volume: 0.79 cc (1/8 NPT).

Set Point Range: Full Scale, 1 to 2000 mTorr; Repeatability: ± 2 mTorr.

Line Power: 115 VAC, 50/60 Hz; 230 VAC optional at no additional cost.

Line Regulation: $\pm 20\%$ change in line voltage produces less than 1% change in reading.

- 1 to 2000 mTorr Range (~ 0 to 2 mm Hg)
- Available in .001 to 2.000 mbar or .1 to 200.0 Pa
- ± 1 mT Resolution Over Entire Range
- Easy To Read 3 1/2 Digit Backlit Display
- Dual Set Point Controller With 2 Relays
- Linear 0 to 2.0 VDC Output; 4-20 mA Optional
- Change Cable Length Without Re-calibrating
- Fits Hastings, Varian, TeleVac Panel Cut-Outs

The Vacuum Research Dual Set Point Controller operates two control relays. Set point values are adjusted from the front panel and displayed on the meter. Push-to-set switches simplify display of set point pressures. Relays have 3 Amp contacts, form C, and have screw terminal connectors on the rear of the instruments.

Both the indicator and the controller instruments are available in either 1/4 DIN or 2.75 inch diameter standard enclosures. The 2.75 inch diameter standard enclosure fits the same panel cut out as Hastings, Varian, Televac and other analog meters. Mounting hardware is included with both styles.

Wattage: Less than 1 Watt for indicator, 2 Watts for controller.

Temperature Effects: Changes in ambient temperature between 0°C and 50°C change the reading less than 0.2 mT per C° at 50 mT; less than 4 mT per C° at 900 mT.

Bakeout Temperature: Standard gauge tube can be baked to 100°C (212°F) in air or vacuum. For 250°C (482°F) bakeout see page 37.

Dimensions: See page 40.

Mounting: Panel mounting is standard. Bench mount and portable cabinets are also available, see page 39 for complete specifications.

Gauge Tube Cables: 10 ft. (3 m) attached.

Extension Cables: Change gauge tube cable length without recalibration. Extensions to 500 ft. (150 m) can be used. see page 39.

Line Cord: 3 wire, 65 inch (170 cm) attached.

Net Weight: Indicator: 1 lbs., 2 oz. (0.5 kg); Controller: 1 lb, 6 oz. (0.6 kg)

Shipping Wt.: Indicator: 2 lbs., 8 oz. (1.1 kg); Controller: 3 lbs. (1.4 kg)

Ordering Information Specify 115 or 230 V 50/60 Hz or 24 VDC

Dual Set Point Controller With Digital Display in standard enclosure. Gauge tube not included. P/N: 902001 \$870

Dual Set Point Controller With Digital Display in 1/4 DIN enclosure. Built to CSA standards. Gauge tube not included. P/N: 902100 \$925

Digital Indicator only in standard enclosure. Gauge tube not included. P/N: 902002 \$593

Digital Indicator only in 1/4 DIN enclosure. Built to CSA standards. Gauge tube not included. P/N: 902099 \$654

4 to 20 mA or 0 to 10 VDC Output in addition to 0 to 2.000 VDC analog output. Only available for instruments in 1/4 DIN enclosure. P/N: V801082 add \$326

Calibrator for 2000 mTorr Instruments

See page 33 for a complete description of the calibrator. P/N: 912008 \$337

Gauge and gauge tube accessories..... see pages 35, 36, 37 and 39 24VDC for 1/4 DIN enclosures Add \$105

BUY NOW! Go to www.vacuumresearch.com to order online

Standard Gauge Tube For 1 to 2000 mT Instruments

Gauge tube body is 304 SS, connector pins are nickel plated Kovar.

With 1/8 in. NPT Male Thread, P/N: 912001 \$115

With 1/4 in. NPT Male Thread, P/N: 912303 \$137

With 1/4 in. SAE 45° Flare, Male, P/N: 912284 \$169

With 3/8 in. OD Tube, P/N: 912313 \$160

With NW-16 Flange, P/N: 912005 • **NW-25 Flange**, P/N: 912202 \$169

With NW-40 Flange, P/N: 912270 \$179

With 1.33 in. Conflat® Flange, non-rotatable, P/N: 912067 \$169

With VCR-4 FEM Fitting, P/N: 912068 \$216

With 15 mm Diameter Tube, P/N: 912102 \$160

All Stainless Steel Gauge Tubes For Outdoor Applications Or Wherever The Use Of 304 SS Is Appropriate. All wetted parts as well as all external parts and connector pins are 304 SS. 1/8 in. NPT, NW-16, Conflat®, VCR-4 and special flanges can be provided. Add "SS" suffix to any tube P/N and to standard tube price: add \$61