

# Portable Micron Gauge; 1 to 20,000 Microns



Photo shows sensors with 1/8 inch NPT and NW-16 flanges to the left of portable gauge model with optional bumpers and handle for easy transport.

- 1 to 20,000 Microns; Rough and High Vacuum
- Bright and Easy to Read Green LED Display
- Handle and Protective Bumpers Included
- Also Available with Panel Mounting Kit
- Fast Response Time, 0.3 Sec. Time Constant
- Perfect For Refrigeration and Leak Detection
- Also Available as 1 to 20,000 milli Torr
- Optional Scale; .001 to 20.00 millibar

This precision vacuum gauge indicates vacuum from 1 to 2000 Microns with a 3 1/2 digit green display, then extends its range to 20,000 Microns with pressure levels indicated by an easy to read, brightly lit LED bar graph. These solid state displays can withstand shock and vibration much better than analog meters, so the gauge can be mounted directly on pump stands or used in the field without damage. A breakthrough in thermal sensor design permits this gauge to outperform conventional instruments by a wide margin. The sensor is constructed with a solid, inert metal that maintains its calibration over long periods. It withstands fluorine, mercury vapor, oxidizers, and other corrosives extremely well. The gauge tubes withstand working pressures to 300 PSI, tested to 1200 PSI, and the tube's outer shell is so rugged you can stand on it.

## Specifications

**Pressure Range:** Digital display: 1 to 2000 Microns; Bar Graph Segments: 3,000 - 5,000 - 10,000 - 15,000 - 20,000 Microns.  
**Calibration:** Air or Nitrogen.  
**Accuracy:** Better than 5% of pressure or ±5 Microns, whichever is larger.  
**Sensitivity:** 1 Micron on 1 to 2000 Micron range.  
**Response Time:** 0.3 second time constant.  
**Gauge Tube:** (purchase separately) Standard gauge tubes have 1/8 NPT male thread or fit into quick connects sized for 1/8 inch pipe (0.405" dia.), NW, VCR and Conflat® flanges are also available.  
**Gauge Tube Internal Volume:** 0.79 cc (1/8 NPT).  
**Line Power:** 115 VAC, 50/60 Hz; 230 VAC optional at no additional cost.  
**Line Regulation:** ± 20% change in voltage from 95 to 130V or 200 to 250V produces less than 1% change in reading.  
**Power Consumption:** Approximately 4 Watts.  
**Line Cord:** 3 wire, 65 inch (170 cm) attached.

This instrument is perfect for applications such as refrigeration where a typical pump down cycle will show water boiling off starting at 20,000 Microns, yet also requires high resolution in the high vacuum range for finish pressures. Now, this single instrument can cover the entire range while providing sensitivities of 1 Micron from 1 to 2000 Microns. The high sensitivity of this gauge also makes it extremely useful for detecting leaks.

Two standard configurations are available. The portable gauge includes a steel reinforced handle and heavy duty urethane bumpers for protection from bumps. The panel mount version comes complete with the hardware needed for mounting in a panel cutout 3.62 inches wide by 1.81 inches high.

**Temperature Effects:** Changes in ambient temperature between 32 °F (0 °C) and 120 °F (50 °C) change the reading less than 0.1 Micron per °F at 50 Microns; less than 2 Microns per °F at 900 Microns.  
**Bakeout Temperature:** Gauge tube can be baked to 212 °F (100 °C) in air or vacuum.  
**Dimensions:** Without bumpers or handle, 3.5" wide X 1.84" high X 7.4" front to back (89 X 47 X 188 mm).  
 With bumpers and handle, 4.325" wide X 2.575" high (4.5" high with handle extended) X 7.9" front to back (110 X 65 X 200 mm).  
**Gauge Tube Cables:** 10 ft. (3m) attached.  
**Extension Cables:** Change gauge tube cable length without recalibration. Extensions to 500 ft. (150m) can be used. see page 39.  
**Weight:** Net: 1 lb., 2 oz. (0.5 kg); Shipping: 2 lbs., 8 oz. (1.1 kg)

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

- Portable Gauge, 1 to 20,000 Microns with carry handle and urethane bumpers (order gauge tube separately) P/N: 902426 .....\$425.
- Panel or Bench Mount Gauge, 1 to 20,000 Microns, panel mounting hardware included (order gauge tube separately) P/N: 902425 .....\$390.
- Urethane Bumpers, pair, P/N: V805001 .....\$50.
- Carry Handle installed on instrument, P/N: V805005 .....\$21.
- Calibrator for Dual Range Instruments See page 33 for a complete description of the calibrator. P/N: 912010 .....\$275.
- Quick connect couplings, tube selector switch, extension cable, and other accessories .....see pages 35, 36, 37 & 39
- Gauge tube baffles and traps .....see page 36

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- ### Standard Gauge Tube For 1 to 20,000 Micron Instruments
- Gauge tube body is 304 SS, connector pins are nickel plated Kovar.
- With 1/8 in. NPT Male Thread, P/N: 912057 .....\$99.
  - With 1/4 in. SAE 45° Flare, Male, P/N: 912283 .....\$145.
  - With 3/8 in. OD Tube, P/N: 912315 .....\$145.
  - With NW-16 Flange, P/N: 912066 • NW-25 Flange, P/N: 912205 .....\$145.
  - With 1.33 in. Conflat® Flange, non-rotatable, P/N: 912076 .....\$145.
  - With VCR-4 FEM Fitting, P/N: 912077 .....\$184.
  - With 15 mm Diameter Tube, P/N: 912127 .....\$133.
- All Stainless Steel Gauge Tubes For Outdoor Applications or Whenever the Use of 304 SS is Appropriate.** All wetted parts as well as all external parts and connector pins are 304 SS. 1/8 inch 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 \$50.