



# Vacuum-Temperature-mV-mA Recorders & Controllers

Pirani & Diaphragm Sensors: Vacuum  $10^{-5}$  to 1500 Torr; J,K,T,R,S,E T/C, PT-100 RTDs

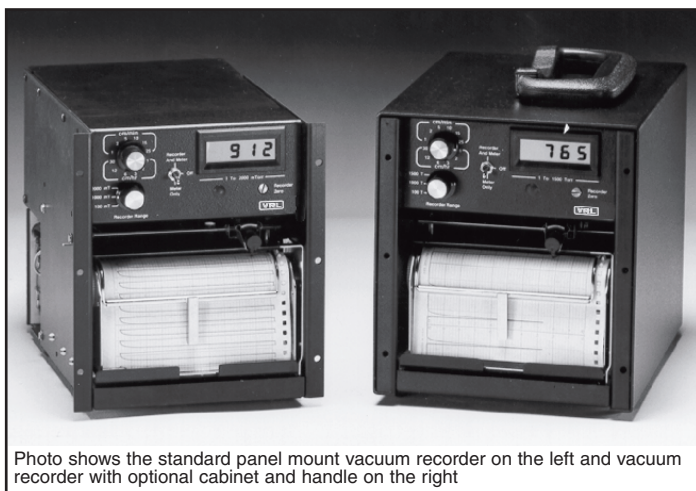


Photo shows the standard panel mount vacuum recorder on the left and vacuum recorder with optional cabinet and handle on the right

- Digital Gauge, Controller, and Recorder
- 3 Range Vacuum Recording System
- Pirani and Diaphragm Vacuum Sensors
- Ideal for Freeze Dryers and Vacuum Ovens
- Permanent Record Continuous Recording
- Type J,K,T,R,S and E T/Cs or PT-100 RTD
- Easy to Change, Disposable Felt Pens
- Record Signals from 10 mV to 10V, 4-20 mA
- Dual Chart Drive; 12 Speed Drive Optional
- 2 Set Points With Alarm Relays Optional

These rugged, low cost recorders provide high resolution digital display with easy to read recording over a wide range of vacuum and pressure. The 3 range recording system gives a permanent record of your system performance with maximum resolution at all pressures; and the instrument functions as a high resolution digital vacuum gauge or controller with the chart either on or off. The optional second pen can record temperature or any other process variable. Select the options that match your sensors.

The recorder chart drive slides out for easy replacement of the 4" fan fold paper. The pens are easy to change, disposable, cartridge type. The dual speed chart drive provides 1 in/minute for start up and troubleshooting situations and 1 in/hour for long term or continuous monitoring. A 12 Speed chart drive is also available; 1, 2, 3, 9, 12, 30 cm/hr and 1, 2, 5, 10, 15, 25 cm/min. The high

impedance servo system has a response time of less than 0.5 second for 90% of a step change and accuracy better than 1/2% of full scale.

Optional features include: 2 front panel adjustable set points with SPDT relays; a 4 to 20 or 0 to 5 VDC analog output and a bench mount cabinet with handle. Gauge tubes and sensors are available with a variety of flanges including NW-16, Conflat<sup>®</sup>, VCR-4 and 1/8 inch NPT.

All recorders include one pack of fanfold chart paper, 4 inch wide grid, one disposable fiber tip cartridge pen, 6 ft. line cord and 10 ft. gauge tube cable. Gauge tube and thermocouples are not included.

## Single Pen Vacuum Recorder Ordering Information

Gauge Tube or Sensor Type	Sensor Ordering Information	Digital Display	3 Switch Selectable Recorder Ranges	2 Speed Chart Drive 1 in/hr and 1 in/min 115V/60 Hz Only	12 Speed Chart Drive 1 cm/hr to 25 cm/min Select 115 or 230V, 50/60 Hz
Diaphragm Manometer Recorder	See Pg. 7	1 to 1500 Torr	1 to 100, 1000, and 1500 Torr	\$1129.	\$1288.
Pirani Gauge Recorder	See Pg. 12	1 to 2000 mTorr	1 to 100, 1000, and 2000 mTorr	\$1129.	\$1288.
Pirani Gauge Recorder	See Pg. 15	.01 to 20 Torr	.01 to 1, 10, and 20 Torr	\$1219.	\$1389.
Pirani Gauge Recorder	See Pg. 14	.01 to 100 mTorr ( $10^{-5}$ to $10^{-1}$ Torr)	0 - 1.00, 0 - 10.0, 0 - 100 mTorr	\$1325.	\$1479.

## Optional Features and Supplies for Vacuum Recorders

Description	P/N	Price	Description	P/N	Price
Dual process control set points for vacuum gauges with 2 relays, each 3 A @ 115 VAC non-inductive	V805102	\$180.	Fiber tip disposable cartridge pens, blue ink, 5 pens/pack	412001	\$13.00 / pack
4 to 20 mA or 0 to 5 VDC analog output	V801082	\$227.	Benchmount cabinet with rubber feet & handle	V805101	\$85.
Chart paper, 32 ft. pack: for inch chart drive	P/N 414057 (inch scale)	\$5.00 / pack for 1 to 24;	Gauge tube extension cable (10 ft of cable included with each recorder.) Up to 200 ft can be added without changing calibration.	912063	\$25. + \$1./ft.
for metric chart drive	P/N 414128 (metric scale)	\$5.00 / pack for 24 packs or more	Extra length cables without extra connector set.	V122195	\$1.00 / ft.

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