

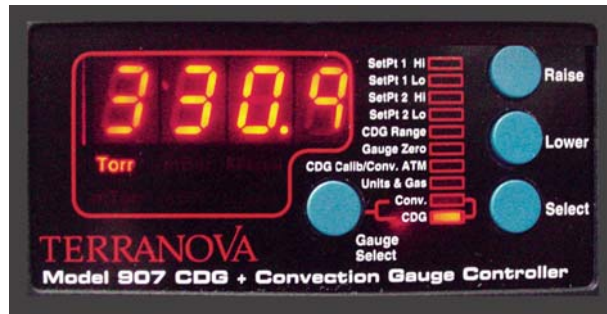
# Terranova Model 907

## Dual - Hybrid Vacuum Gauge Controller

### Diaphragm + Convection Gauges

#### 1/8 DIN Packaging

Covers gauges with full scale of 20 mTorr to 10,000 Torr

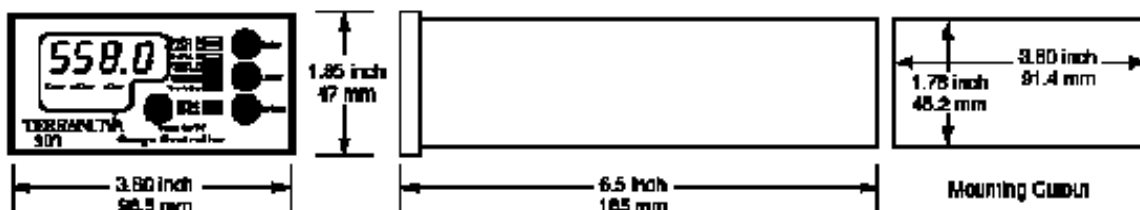


The Terranova Model 907 Dual - Hybrid Vacuum Controller displays vacuum pressure as measured from both a Capacitance Diaphragm gauge (CDG) and a Convection Enhanced Pirani (CEP) gauge. The 907 is housed in a 1/8 DIN enclosure and is simple to operate.

For the CDG, the 907 supplies  $\pm 15$  volts at up to 0.75 amp; this is sufficient to operate most heated capacitance diaphragm gauges. The 907 precisely measures the 0 to 10 volt signal from the CDG to determine pressure, displaying the results in units of Torr/mTorr, mBar/microBar or Pascal/kPascal, user selectable. The Model 907 controller covers full scale CDG ranges from 20 mTorr to 10,000 Torr, user selectable.

For the Convection gauge, the 907 displays vacuum pressure as measured from a HPS/MKS Type 317 Convection Enhanced Pirani gauge tube or a Granville-Phillips CONVECTRON® gauge tube, user selectable. It displays vacuum measurements based on thermal conductivity of air/nitrogen or argon, user selectable. The 907 controller covers the range from 0.1 mTorr to 995 Torr, 0.1  $\mu$ Bar to 995 mBar or 0.01 Pascal to 130 kPascal, user selectable.

- low cost
- CE/UL listed
- small 1/8 DIN size
- universal power input
- 0.75 amp output to power heated gauges
- RS-232 input/output
- torr/mTorr, mbar/microbar, pascal/kpascal units
- calibrated logarithmic analog output
- interfaces to diaphragm and convection gauges
- two process control set points with 2 amp relays



Terranova 907 Dimensions and Cut-Out Dimensions

# Terranova 907 Hybrid CDG/Convection Gauge Controller

## Specifications

### Useful Measuring Range

**CDG:** 4 decades; full scale of 20 mTorr to 10,000 torr; maximum range selection is entered on the front panel by the user. Pressures higher than 130% of sensor full scale displays **HI**  
**CEP:** 0.1 mTorr to 995 Torr for air

### Input to the 907 Controller

**CDG:** 0 to 10 volts for full scale of the gauge  
**CEP:** Pressure is calculated from the gauge output using the gauge suppliers algorithm.

### Units of Display

**CDG and CEP:** Torr/mTorr or mBar/microbar or Pascal/kPascal, user selectable

### Vacuum Gauges

**CDG:** One diaphragm manometers which require up to 0.75 amp total from + / -15 volt supplies  
**CEP:** One GP Convector® or equivalent or One HPS/MKS 317 Convection Enhanced Pirani

### GAUGE SELECT

user to select which gauges is shown on the display

### Operating Temperature Range

+2 to +50 degrees Celsius

### Pressure Display

4-digit 7-segment bright red LED, 10 mm high

### Display Indicators

bright red individual LED for miscellaneous indicators; 7-segment LED for digits

### FULL SCALE Adjust

**CDG:** 20, 50, 100 mTorr;  
1, 2, 10, 20, 100, 1,000, 5,000, 10,000 torr  
user selectable  
**CEP:** 995 Torr

### Calibration Adjustments

**CDG:** CALIBRATE: allows user to multiply response by 0.500X to 2.000X; CDG RANGE, ZERO, UNITS  
**CEP:** GAUGE ZERO, UNITS, ATM, GAS (Air/Argon)

### Process Control Set Points

two, with independent High and Low set points for each relay, for flexible control of hysteresis

### Process Control Relays

two relays, 2 amp/240 VAC/30 VDC contacts

### Analog Output

Logarithmic, 0.5 volts per decade

### Output Power

**CDG:** +15 and -15 volts, at 0.75 amp total; sufficient to operate temperature-controlled gauges

### Serial Input/Output Interface

RS-232 is standard, 9600 baud, 8-N-1

### Operating Voltage

universal input, 100-240 VAC, 47-63 Hz;  
30 VA; IEC 320 instrument power input receptacle on rear panel

### Weight

1 lb. / 0.5 kg

### Size

Standard 1/8 DIN enclosure  
3.80 inches (95 mm) wide  
1.85 inches (47 mm) high  
7.0 inches (175 mm) deep

### Mounting

brackets are provided for panel mounting

### Compliance Listing

CE/UL marked



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