

# Terranova Model 990

## Gauge Control/Display

Continuous Measurement Over 13 Decades of Vacuum  
For Use With Leybold/Inficon SKY™ IR090 Combi Gauge



The Terranova Model 990 Vacuum Gauge Controller displays pressure from  $5 \times 10^{-10}$  mBar to 1000 mBar, as measured from the Leybold Inficon IR090 SKY™ Hot Ion Combi Gauge. The Model 990 precisely measures the analog signal from the transducer to determine pressure. When autoranging, the Model 990 automatically smooths the pressure reading over the range of overlapping pressures.

The Terranova Model 990 is a programmable, microprocessor controlled unit, which gives it great versatility in operation, display, control and data communication. Some major features include:

- Operates the Leybold Inficon IR090 SKY™ Hot Ion Combi Gauge transducer.
- Autoranging display of 13 decades of pressure with one vacuum connection.
  - $5 \times 10^{-10}$  mbar to  $1.1 \times 10^{+3}$  mbar.
  - $4 \times 10^{-10}$  torr to  $8.3 \times 10^{+2}$  torr
  - $5 \times 10^{-8}$  pascal to  $1.1 \times 10^{+5}$  pascal
- Gauge combines two proven sensor technologies in compact, rugged package:
  - Long-life Bayard-Alpert, hot filament sensor
  - Fast-response double Pirani sensor
- User Selectable Pressure Units: Torr, mBar, Pascal.
- 2 Programmable Process Control Set Points.
- RS 232 Serial I/O for Data Collection and Computer Control
- Analog Logarithmic Output for Monitoring Pressure
- CE Conformance for EMI, EMC and Safety
- Universal Power Supply: 90-265 Volts; 47-65 Hz or DC
- Compact, 1/8 DIN Packaging

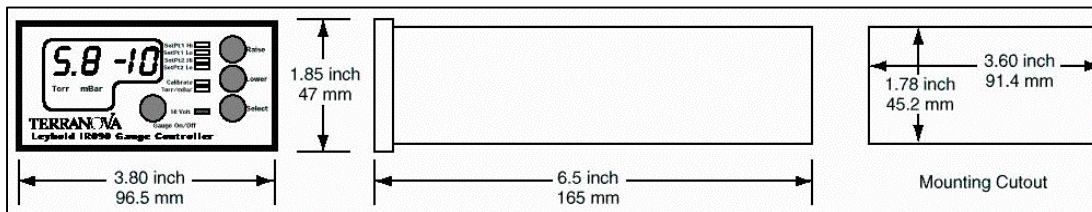


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## Terranova 990 Specifications

<b>Measuring Range</b>	$5 \times 10^{-10}$ mbar to $1.1 \times 10^{+3}$ mbar. $4 \times 10^{-10}$ torr to $8.3 \times 10^{+2}$ torr $5 \times 10^{-8}$ pascal to $1.1 \times 10^{+5}$ pascal HI indicates overrange LO indicates underange
<b>Display Resolution</b>	2 digits with a two digit exponent
<b>Units of Display</b>	Torr, mBar, Pascal: user selectable
<b>Operating Temperature</b>	0 to +40 degrees Celsius
<b>Process Control Set Points</b>	Two relays may be independently set from $1 \times 10^{-9}$ mbar to $8 \times 10^{+2}$ mbar. Contacts rated at 60 VDC or 30 VAC at 2 amp; the relays are internally fused.
<b>Nonvolatile Memory</b>	For all user specified parameters
<b>Analog Output</b>	Logarithmic, 0.5 volts / decade
<b>Output Power</b>	+24 volts at 0.35 amp, sufficient to operate the Leybold Inficon IR090 SKY <sup>tm</sup> Hot Ion Combi Gauge.
<b>Mounting</b>	The Model 990 may be used as a bench-top instrument or mounted in an instrument panel with clips provided.
<b>RS-232 Output</b>	Allows user to read pressure and set points; 9600 baud,
<b>Power Requirement</b>	90 - 265 Volts; 47 - 65 Hz or DC
<b>Weight</b>	0.9 lb. /0.4 kg
<b>Repeatability</b>	Approximately +/- 5%
<b>Relative Humidity</b>	0 -80%, non-condensing
<b>Altitude</b>	0-2000 m (6561 ft.) maximum



**Terranova 990 External Dimensions**