

# High Pressure Pirani Gauge - Analog



Change of pressure in vacuum systems brings about a rise or fall in number of gas molecules present and hence a rise (or) fall in the thermal conductivity of the gas. Thus the heat loss of constant voltage electrically heated filament in the system varies with the pressure.

The pirani gauge head filament has high temperature co-efficient of resistance. So a slight change in system pressure brings about useful change in filament resistance resulting in an out of balance of the wheat stone bridge where filament forms one of the arms.

This electrically heated filament is an arm of a self balancing wheat stone bridge circuit. An automatic control amplifier corrects bridge voltage automatically, so that the filament temperature is kept constant around 120°C throughout the whole measuring range. Thus the required bridge voltage (which varies depending upon the pressure at the sensor head filament) is a measure of the pressure which after proper conditioning and calibration is displayed on the meter

## **Salient Features:**

- Compact solid state electronics
- Two gauge head capability
- Factory calibrated
- Reliable and repeatable pressure indications
- Excellent Zero stability
- With setpoint controller optionally offered

## **TECHNICAL SPECIFICATIONS**

<b>Model No.</b>	HPG - 102
<b>Pressure Range</b>	1000 m.bar to $1 \times 10^{-3}$ m.bar
<b>Display</b>	Continuous single scale meter read out with selector switch for gauge head selection
<b>Capacity</b>	2 gauge head standard
<b>Power input</b>	220V AC $\pm 10\%$ , 50 Hz 20 Watts max.
<b>Power chord</b>	2 mts. long cable with 3 pin 5 amps as standard extra length cable on request
<b>Gauge Head Calibration</b>	Pirani model HPS-2 Factory set
<b>Gauge head mounting</b>	In any position, preferably vertical
<b>Gauge head cable</b>	2 mts. long (extra length on request)

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