



# **Portable Hydrogen Purity** Gas Analyzer



#### Portable Hydrogen Purity Gas Analyzer

**VASTHI** Portable Hydrogen Purity Gas Analyzer Model VHP-200 is a lightweight, easy to handle, batter-powered analyzer, used to verify measurements and for spot-checking when other methods provide questionable results.

VHP-200 an intelligent gas analyzer for gas measuring based on the measurement of the thermal conductivity of the ambient gas. To compensate for the influence of temperature and humidity, these are measured separately and a correction is made for them in the micro-controller. Each device is factory calibrated.

Portable analyzers are microprocessor-controlled instrument with sophisticated software process that meets the needs of industry in analyzing the Gas with accuracy and reliability. Its TCD transducer provides highly stable and reliable results.

### **Key Features**

- · Binary gas composition measurement
- · Vacuum measurement
- · Temperate and humidity compensated
- Start-up time: I second
- T90 sensing and T10 recovery time: I second
- Rugged construction
- Light-weight
- Different tone, low and very low purity alarms
- Micro-controller technology
- Long battery backup hours
- Virtually maintenance free
- Automatic in operation
- Suitable for single or multiple gas analysis
- · Customer specific configurable
- Easy calibration in fresh air
- · Run-while charging capability
- And Many More

The Vasthi Portable Model VHP -200 with digital readouts and alarms is a direct reading compact portable hydrogen purity analyzer, designed to serve the demanding field requirements of Hydrogen producing and using industry. It is designed to replace the cumbersome and time consuming or set apparatus and provide quick and accurate reading of Hydrogen Purity. It offers the user a distinct advantage in terms of economy, dependability maintenance and ease of operation. The instrument incorporate detector as a transducer. It has adjustable, visual and audible alarms at WARN & ALARM levels. The instrument is simple and easy to operate. Just switch it on, adjust zero control so that indicator shows the reading.

### **Major Applications**

- Process analysis
- · Continuous emission monitoring
- Optimizing combustion process
- Industries agriculture, food, chemical and petrochemical etc
- Biochemistry (microbes) :- Incubator, For fermentation
- Storage and maturation of fruits
- Gas separation
- Iron and steel :- Blast furnace, Converter furnace, Heat treatment furnace, Coke Oven
  (CDQ)
- Clinical medicine :- Oxygen aspirator
- Saving Energy :- Boiler, Heat treatment furnace
- Hazard prevention :- Analysis of gases produced through combustion of new building materials
- Ceramic industry: Tunnel kiln, Cement
- Water and Sewerage water :- Sewerage incinerator
- Thermal treatment :- Generating furnace, Carburization furnace, Annealing furnace
- Agriculture :- Research of photosynthesis
- Chemistry: Oil refining plant, Petrochemical plant, Gas production plant
- Electronics: Solder furnace

#### **Technical Specification:**

Measuring Range & Gas:

• Generator Purity Mode : 0 - 100.0 % H2 in Air

• Generator purge Mode : 0 – 100.0 % H2 in CO2 , 0-100.0 % Air in CO2

• Minimum Resolution : 0.1%

Read out : Digital Graphical Display

• Sampling mode : Direct Plug-in

• Detection Principle : Thermal Conductivity (Katherometer)

• Accuracy : +/- 0.2 % of full scale

Response time : less than 10Warm up time : 10 seconds

#### **Application Data:**

• Environmental Temperature Range\* : 20°- to 50° C (-4° to 122° F)

• Sample Inlet Pressure : 10 to 25 PSIA, 10 PSIG Maximum

• Sample Flow Rate : 0.1 – 10 L/min (0.2 to 20 scfh)

#### **Electrical & Communications:**

• Input Voltage : 100-240 VAC, 50-60 HZ standard

• Electrical Storage : 12 – Volt, Sealed Lead – Acid Battery Approx.hours usage time

per charge

• Current : 0.5 A @ 120 VAC during recharging

• Alarms : Two levels (selectable range)

• Warranty : One year expect Batteries



## **VASTHI INSTRUMENTS**

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