SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Boys Gas Calorimeter | ProzessiX PX-05

Category: Process Engineering Technology · **Order Code:** PX-05 · **Country of Origin:** India

Product Overview

The Boys Gas Calorimeter – is a laboratory apparatus designed for determining the calorific value of gaseous fuels through controlled combustion and heat transfer measurement. Made by Scientico India, ISO 9001:2015 certified, and supplied with a calibration certificate and operation manual.

View this product online: https://scienticoindia.com/product/boys-gas-calorimeter-prozessix-px-05/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Parameter	Specification
Model	ProzessiX PX-05
System Type	Boys Non-Recording Gas Calorimeter
Manufacturer	SCIENTICO
Gas Meter Type	Hyde Type Wet Gas Meter
Flow per Drum Revolution	0.002 m³
Rated Flow	0.2 m³/h
Maximum Flow Record	100 m³
Excess Flow	0.3 m³/h
Normal Pressure Value	1000 Pa
Operating Temperature	15°C – 25°C
Rotameter Range	1 – 7 LPM (Water)
Temperature Measurement Range	−100°C to 400°C
Temperature Measurement Points	Water inlet, water outlet, effluent gas, ambient temperature
Graduated Measuring Cylinders	2 L and 1 L
Data Acquisition Software	ProzessiX PX-05 Software (Optional)

Parameter	Specification
Software Environment	National Instruments LABVIEW
Operating System Compatibility	Windows Environment

Key Features

Key Features

- Complete laboratory apparatus for calorific value determination of gaseous fuels
- Hyde type wet gas meter providing accurate measurement of gas consumption
- Boys non-recording calorimeter for combustion heat measurement
- Tube heat exchanger constructed from corrosion-resistant material
- Constant head overhead funnel with water connection tubes for controlled water supply
- Multiple thermometers for measurement of inlet, outlet, effluent, and ambient temperatures
- Chromium-plated reading lenses for improved thermometer visibility
- Graduated measuring cylinders and glass vessels for fluid measurement and condensate collection
- General-purpose burner suitable for various gaseous fuels
- Gas control valve for regulating gas flow during experiments
- Optional data acquisition software for digital data recording and analysis

Applications

The Boys Gas Calorimeter – ProzessiX PX-05 is widely used in laboratories and technical institutions for studying the thermal characteristics of gaseous fuels.

Typical applications include:

- Chemical engineering laboratory experiments
- Fuel and energy analysis studies
- Combustion engineering research
- Determination of calorific value of industrial and laboratory gases
- Thermal engineering education and demonstrations
- Evaluation of gaseous fuel performance in industrial heating systems
- Research on energy conversion and fuel efficiency

The apparatus is particularly suitable for engineering colleges, technical universities, energy research laboratories, and industrial training centers.

Construction & System Design

The ProzessiX PX-05 Boys Gas Calorimeter is designed to provide reliable laboratory operation and accurate experimental measurements. The apparatus integrates a precision Hyde type wet gas meter with a Boys non-recording calorimeter assembly to ensure precise measurement of gas flow and combustion heat.

The wet gas meter includes a specially designed measuring drum enclosed in a gas-tight casing and sealed with water, allowing accurate measurement of the gas volume supplied to the burner. The calorimeter includes a corrosion-resistant tube heat exchanger designed to withstand continuous exposure to combustion gases and circulating water.

Thermometers supplied with the apparatus are equipped with adjustable chromium-plated reading lenses to improve measurement accuracy. Measuring cylinders and glass vessels allow collection of condensed products and measurement of water outflow during experiments. The system layout provides clear visibility of measuring instruments and easy access to operational components, ensuring safe and efficient laboratory use.

Export & Supply Capability

SCIENTICO manufactures the ProzessiX PX-05 Boys Gas Calorimeter for supply to educational institutions, laboratories, and industrial training centers worldwide. The apparatus is suitable for international export and laboratory installation.

The equipment is supplied with operating documentation, experiment guidelines, and an instruction manual. Export packaging ensures safe transport of glassware, instruments, and precision components.

SCIENTICO also supports customization requirements, documentation support, and international supply for distributors, universities, and research laboratories.

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q1. What is a Boys Gas Calorimeter used for?

A Boys Gas Calorimeter is used to determine the calorific value of gaseous fuels by measuring the heat released during combustion and the temperature increase in a circulating water system.

Q2. Which fuels can be tested using the ProzessiX PX-05?

The apparatus can be used with gases such as methane, propane, butane, acetylene, ethylene, propylene, natural gas, town gas, and coke oven gas.

Q3. How does the wet gas meter measure gas volume?

The Hyde type wet gas meter contains a rotating measuring drum sealed with water. As gas passes through the meter, the drum rotates, enabling precise measurement of the volume of gas consumed.

Q4. What parameters are measured during the experiment?

The system measures water inlet temperature, water outlet temperature, effluent gas temperature, ambient temperature, and gas volume. These values are used to calculate calorific value and energy output.

Q5. Is data acquisition software available with the system?

Yes. Optional data acquisition software (IPE-3403SW) developed in the National Instruments LABVIEW environment can be used to measure, record, and calculate experimental results.

Q6. Is the apparatus suitable for engineering education?

Yes. The ProzessiX PX-05 is designed for chemical engineering, thermal engineering, and energy engineering laboratories to study combustion and fuel energy analysis.

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