SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

Phone: +91 7015865225 **Email:** info@scienticoindia.com **Web:** scienticoindia.com **Address:** #71, Industrial Area, Ambala Cantt, Haryana, India

Control Valve Characteristics Training Panel | ProzessiX PX-06

Category: Process Engineering Technology · **Order Code:** PX-06 · **Country of Origin:** India

Product Overview

The Control Valve Characteristics Training Panel – is a laboratory training system designed to study the behavior and performance characteristics of pneumatic control valves used in industrial process control systems. 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/control-valve-characteristics-training-panel-prozessix-px-06/



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

Technical Specifications

Parameter	Specification
Model	ProzessiX PX-06
System Type	Control Valve Characteristics Training Panel
Manufacturer	SCIENTICO
Number of Control Valves	3
Valve Types	Linear, Equal Percentage, Quick Opening
Valve Operation	Pneumatic
Actuator Type	Diaphragm
Valve Stroke	10 – 15 mm
Valve Input	Compressed Air
Water Tank Material	Stainless Steel
Water Tank Capacity	25 Liters
Overhead Tank Material	Acrylic
Overhead Tank Capacity	10 Liters
Pump Type	Centrifugal
Pump Purpose	Water Circulation

Parameter	Specification
Flow Measurement	Rotameter
Pressure Measurement	Single Column Manometer
Pressure Regulator Range	0 – 4 bar
Pressure Gauge Type	Bourdon Type
Pressure Gauge Range	0 – 4 bar
Compressed Air Requirement	1 CMH at 2 bar
Floor Area Requirement	1.0 m × 1.0 m
Data Acquisition Software	ProzessiX PX-06 (Optional)
Software Platform	National Instruments LABVIEW
Operating System Compatibility	Windows Environment

Key Features

Key Features

- Laboratory apparatus for studying control valve characteristics in process control systems
- Three pneumatic control valves representing different flow characteristics
- Demonstration of linear, equal percentage, and quick opening valve responses
- Stainless steel water tank with centrifugal pump for continuous circulation
- Rotameter installed for accurate flow measurement through the valves
- Single column manometer for monitoring inlet pressure conditions
- Pneumatic diaphragm actuators enabling controlled valve operation
- Air pressure regulator and Bourdon pressure gauge for accurate air supply control
- Rigid steel structure ensuring stable installation and safe operation
- Organized piping system for clear observation of process behavior
- Optional LABVIEW-based data acquisition software for experimental data recording

Applications

The ProzessiX PX-06 Control Valve Characteristics Training Panel is designed for laboratory demonstrations and practical training in process control engineering.

Typical applications include:

- Chemical engineering laboratories
- Process control and instrumentation education
- Industrial automation training programs
- Demonstration of valve flow characteristics
- Study of control valve hysteresis and rangeability
- Training in industrial flow regulation systems
- Technical universities and industrial training institutes

The apparatus provides hands-on understanding of how control valves behave in real process systems.

Construction & System Design

The ProzessiX PX-06 system is mounted on a rigid steel frame structure designed for stable laboratory operation. All components are arranged systematically to allow easy observation of the flow path, instrumentation, and control valves during experiments.

The water circulation system consists of a stainless steel tank connected to a centrifugal pump, ensuring continuous and stable flow conditions. An acrylic overhead tank provides visual monitoring of water levels and flow behavior.

Three pneumatic control valves equipped with diaphragm actuators are installed within the piping network. The compressed air supply used for valve actuation is regulated through a pressure regulator and monitored using a Bourdon type pressure gauge.

Flow measurement is achieved through a rotameter, while pressure head at the valve inlet is measured using a single column manometer. All piping and fittings are integrated into a structured layout for safe and efficient laboratory operation.

Export & Supply Capability

SCIENTICO manufactures the ProzessiX PX-06 Control Valve Characteristics Training Panel for supply to engineering institutions, research laboratories, and industrial training centers worldwide.

The system is designed for international export and is supplied with an instructional manual containing experimental procedures, block diagrams, and operational guidelines. Export-grade packaging ensures safe transportation of instruments and components.

SCIENTICO also supports documentation assistance and customization options for international distributors, universities, and technical institutes.

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 Control Valve Characteristics Training Panel?

A Control Valve Characteristics Training Panel is a laboratory system used to study how different control valve designs regulate fluid flow and how their characteristics affect process control performance.

Q2. What valve types are included in the ProzessiX PX-06 system?

The apparatus includes three pneumatic control valves with linear, equal percentage, and quick opening flow characteristics.

Q3. What experiments can be performed using this training panel?

Users can perform experiments to determine inherent valve characteristics, installed characteristics, valve hysteresis, and valve rangeability.

Q4. What fluid is used in the experimental setup?

Water is used as the working fluid and is circulated continuously through the system using a centrifugal pump.

Q5. How are the valves actuated during experiments?

The control valves are operated using pneumatic diaphragm actuators that receive regulated compressed air input.

Q6. Is the system suitable for process control training?

Yes. The ProzessiX PX-06 is designed specifically for chemical engineering, instrumentation, and process control laboratories where students study industrial valve operation and flow regulation principles.

SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India
#71, Industrial Area, Ambala Cantt, Haryana, India

+91 7015865225 · info@scienticoindia.com
scienticoindia.com
Product reference: PX-06