

MODEL: BSP08

BSP08.exl Revision No: 09 Date: September 20, 2021

CONTROL VALVE TRAINER



FEATURES

- Self contained modular, robust and mobile unit
- Plot inherent as well as installed characteristics of different valves
- Measure Cv and Kv of the valve



DESCRIPTION

Control valve trainer is a training equipment that helps trainees understand various design aspects of control valves used in process industry. Trainees can plot inherent and installed characteristics of control valves. Different types of valves can be supplied. Optionally, trainees can measure and calculate Cv and Kv of the valves.

Rotameter as well as measuring tank-stopwatch is supplied as a standard. This helps quicker data collection and better plotting of characteristics over a wide range of flowrate. Two pressure gauges are supplied per valve along with specially designed pressure equalising ring. This novel design helps better pressure readings. A digital readout with 0.01mm resolution is supplied with each valve to measure stem travel of the valve. The equipment incorporates the standard industrial components

INSTRUCTION MANUAL

Self -explanatory operating manuals are provided with each system. Detailed theory as well as practical exercises is also included in the manual

LIST OF EXPERIMENT

- 1. Study of construction different types of Control Valves
- 2. Study of construction different types of Valve actuators
- 3. Study and operation of a Pneumatic Valve
- 4. Study and operation of a Electrical Valve
- 5. Plotting inherent characteristics of a valve with equal percentage/linear and On-Off characteristics
- 6. Plotting installed characteristics of a valve with equal percentage/linear and On-Off characteristics
- 7. Measuring Cv and Kv of a valve

Note: Depending on the model selected, list of experiments listed above may change

COMPONENTS

- 1. Control Valve
 - Equal percentage characteristic
 - Linear characteristic
 - On-Off characteristic
- 2. Pressure measurement
 - Pressure gauges, 2 nos. per valve with pressure equalizing ring
 - Pressure gauge to measure input to the control valve
 - Ultra-low range pressure gauge
- 3. Digital readout for stem travel, 1 no. per valve



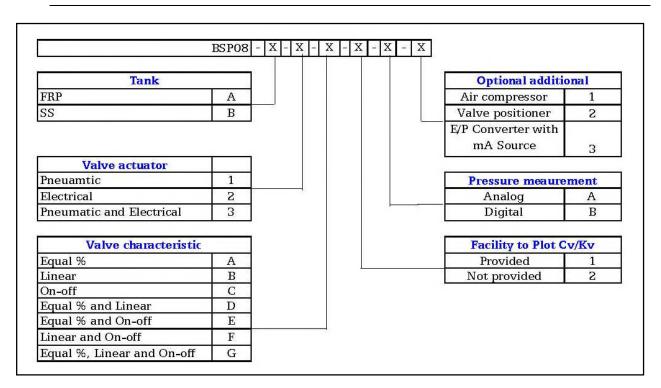
- 4. Rotameter
- 5. Low range pneumatic pressure regulator
- 6. Sump tank
- 7. Measuring Tank-stopwatch
- 8. Overhead tank
- 9. Centrifugal pump
- 10. Pipes and fitting

Note: Details of attachments can be made available on request.

SERVICES REQUIRED

- Electric supply
- Water supply and drain

MODEL SELECTION CHART



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- Since research and development is an on-going activity, the specifications mentioned herein are subject to change without notice
- Photographs are indicative only