



PF-100 MODEL 025-P

EXHAUST CONTROL SYSTEM

Hardware

The PF-100 Model 025-P

The need to satisfy today's stringent *Process* and *Facility* exhaust requirements led to the development of this *patent pending* airflow control product.

The PF-100 product line satisfies the need while providing equipment manufacturers and end users with the benefits they have long desired: *Very high performance at a very low cost.*

The PF-100 Model 025-P

- Monitors and Controls process pressure
- Allows the operator to select one or more set points
- Easily installed *inside* the process tool or *in-line* between the selected process tool and the facility house exhaust.
- Provides *stable process exhaust* by automatically compensating for variations in facility house exhaust or supply air volume.
- Isolates the tool from house exhaust between other process tools or chambers, which may have changing exhaust requirements.
- Designed for acid or base processes. The internal and external surfaces of the valve are either acid resistant or solvent resistant, to effectively protect mechanical and electronic components.

The PF-100 Features

- *Lowest Pressure Drop* across the valve of any comparable valves of its size.

> The PF-100 Exhaust Control System

- *Small
- *Fast Responding
- *Reliable
- *Easy to install & maintain



BENEFITS:

- *Isolates* the Process Tool from house exhaust variation
- *Fast, repeatable, linear control*
- Unique *installation and service* design features:
 - Simple installation in *any orientation* inside the tool or in-line between the tool and house exhaust
 - Easy maintenance *without tools* and in *less than one minute*
- Contributes to a *reduction in cost* of energy and operating expenses:
 - Compensating for exhaust air variation results in exhaust air reductions.
 - Idling at low set points or in the full closed position lowers energy and operating costs associated with exhaust air scrubbing and chilled, filtered replacement air.
- Ensures *operator safety*
- The product is designed to maintain constant control of the exhaust air providing safety from chemical vapors to the end user
- Primary Applications
 - Spin Coat
 - Develop
 - Hot Plates

- Programmable response time feature provides *Variable response* during set point changes.
- Ability to go to the *full closed position* upon command
- The “*SMART SENSE*” feature:
 - Proactively responds to changing conditions *before* they affect the process
 - Maintains constant control of the exhaust air providing *safety* from chemical vapors to operators and facilities
 - Stores the most recent valve positions at each set point in memory allowing the valve to compensate for *unplanned line restriction*
- One interface module can control two PF-100 valves and provides:
 - User defined *multiple* process control set points
 - User defined *alarm control* range with “out of control” alarm indicator
 - Selectable *local* or *remote* control interface
 - User defined display in *Pascals, inches, or millimeters* of H2O

THE PF-100 MODEL 025-P SPECIFICATIONS

➤ Exhaust Range:	25 – 100 mm H2O
➤ Set Point Range:	2 - 23 mm H2O
➤ Pressure Drop Across Valve:	0.5 mm H2O at 40 CFM
➤ Response to +/- 20% H.E. Fluctuation:	< 0.50 seconds
➤ Response from full open to full close:	< 0.60 seconds
➤ Set Point Accuracy:	The greater of 0.3 mm or +/- 5% of set point
➤ Response to Set Point Change:	Programmable
➤ Material Chemical Compatibility:	Acids or Bases (Order Specific)
➤ Communications:	Stand-Alone 1 or 2 Set point
➤ Mounting:	Any orientation
➤ Footprint:	167 W x 316 H x 208 D (mm)
➤ Weight:	< 4.5 Kg
➤ MTBF:	1 Million full open to close cycles
➤ MTTR:	< 1 minute
➤ Alarm:	Out of range
➤ Fail Safe:	Maintains last position. Returns to selected set point when power restored

Options

➤ Direct/Remote Communication:	RS422/485 (order specific)
➤ Programmable Set Point Change Speed:	1 – 10 seconds
➤ Power Supply:	Input = 100 – 240 VAC, (UL & CE approved) 47 – 63 Hz Output = +24 VDC, 1.8 Amp

