



## Features

- Standard X-750 Inconel diaphragm for strength, corrosion resistance and longer life.
- Three seat material choices for a wide range of chemical compatibility, (PEEK, CTFE, and Vespel).
- High maximum supply pressure of 6000 PSIG to allow more through put of gas.
- Tamper Proof option available.
- Ambient Temperature range of -40°F to +500°F, depending on seat material.
- Panel Mounting option available.

### INSTRUMENTS • CONTROLS • VALVES

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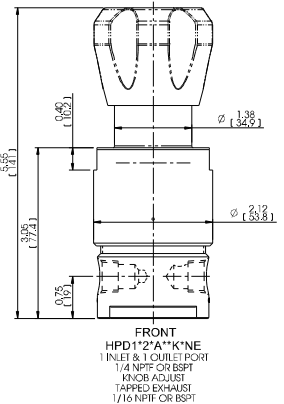
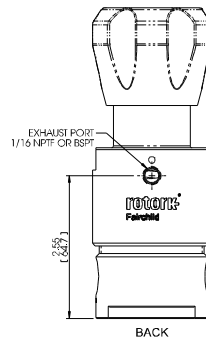
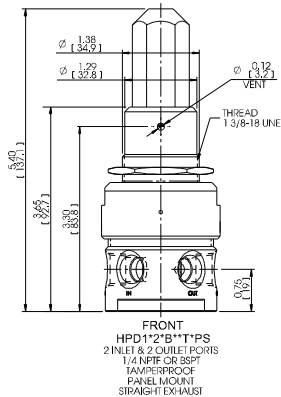
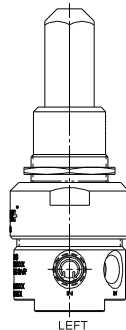
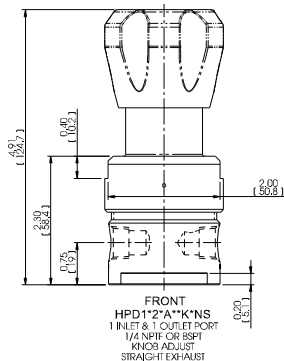
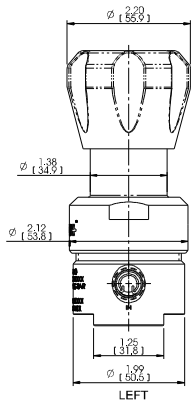
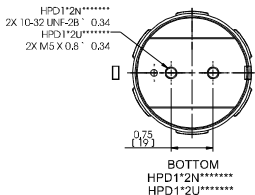
3317 Gilmore Industrial Blvd.  
Louisville, KY 40213

Engineering, Inc.  
SINCE 1954  
www.arcoengineering.com

Ph: (502) 966-3134  
Fx: (502) 966-3135

## Operating Principles

When the regulator is adjusted for a specific set point, the downward force of the Range Spring moves the Diaphragm Assembly downward. The Supply Valve opens and allows air to pass to the Outlet Port. As the set point is reached, the downward force of the range spring is balanced by the force of the downstream pressure that acts on the diaphragm, causing the supply valve to close.



**Model  
HPD**

### Specifications

**Supply Valve Cv** (1) 0.06 / (3) 0.25

**Exhaust Valve Cv** 0.02

#### Maximum Supply Pressure

6000 psig, [414 BAR], (41400 kPa)

\*Consult seat material chart for maximum pressure

#### Supply Pressure Effect

0.6 psig change for 100 psig change in supply pressure

#### Ambient Temperature

-40°F to +500°F, (-40°C to 260°C)

\*Consult seat material chart for maximum temperature

#### Materials of Construction

Body and Housing.....Alloy 316L Stainless Steel

Valve.....316L Stainless Steel

Diaphragm.....Alloy X-750 Inconel

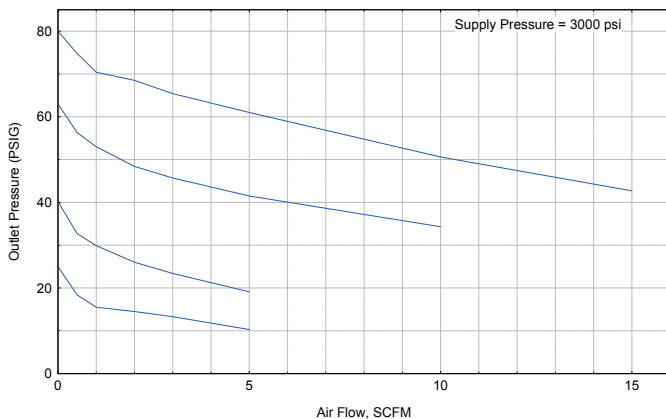
### Installation

Refer to the *Fairchild Model HPD Installation, Operation and Maintenance Instructions*, IS-10000HPD.

### Gauges

See Page 169 for High Pressure Gauges

Flow Characteristics Chart  
HPD



### Ordering Information

Catalog Number	HPD	1	*	*	*	*	*	*	*	*	*	*	*	*
<b>CV</b>		3												
<b>Pressure Ranges:</b>	0-25 psi	3												
	0-50 psi	4												
	1-100 psi	5												
	2-250 psi	7												
	5-500 psi	9												
<b>Inlet/Outlet Port Size:</b>	1/4"		2											
<b>Port Thread:</b>	NPTF					N								
	BSPT					U								
	SAE AS5202-4					S								
<b>Port Configuration</b>	2 Port (1 Inlet, 1 Outlet)							A						
	4 Port (2 Inlets, 2 Outlets)							B						
<b>Body Material</b>	316 Stainless Steel								S					
<b>Seat Material</b>	PEEK									P				
	CTFE									T				
	Vespal									V				
<b>Actuator</b>	Knob										K			
	Tamper Proof											T		
<b>Relief</b>	Relieving												R	
	Non Relieving*												N	
<b>Mounting</b>	None													N
	Panel													P
<b>Exhaust Vent</b>	Straight													S
	Tapped													E

\*Bubble Tight Shutoff in Most Conditions

SEAT MATERIAL	MAXIMUM TEMPERATURE*	@	MAXIMUM INLET PRESSURE
CTFE	175°F (80°C)	@	3500 PSIG (241 BAR)
PEEK	500°F (260°C)	@	3500 PSIG (241 BAR)
PEEK	175°F (80°C)	@	6000 PSIG (414 BAR)
VESPEL	500°F (260°C)	@	3500 PSIG (241 BAR)
VESPEL	175°F (80°C)	@	6000 PSIG (414 BAR)

\*Temperatures in excess of 175°F (80°C) require a tamper-proof option