

# Model 80D Multi-Stage Pressure Regulator

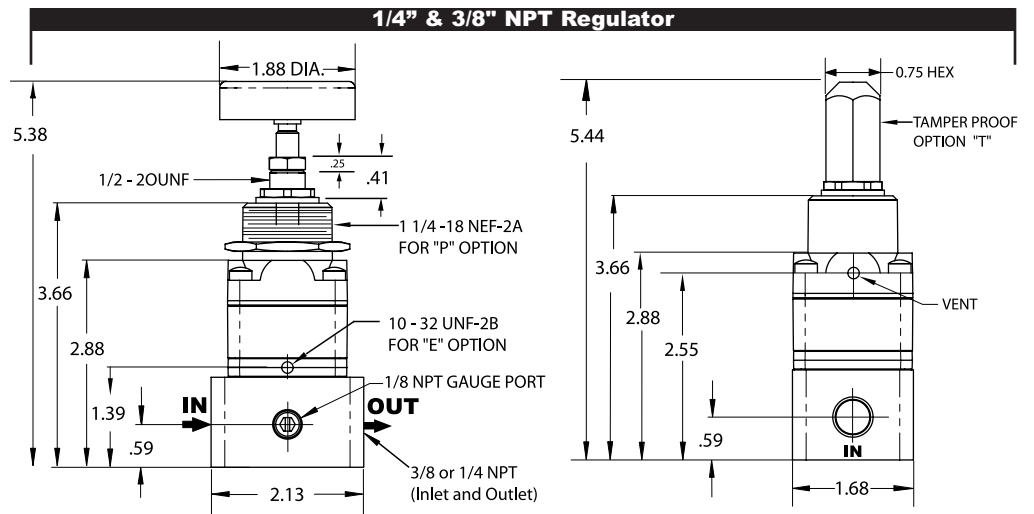
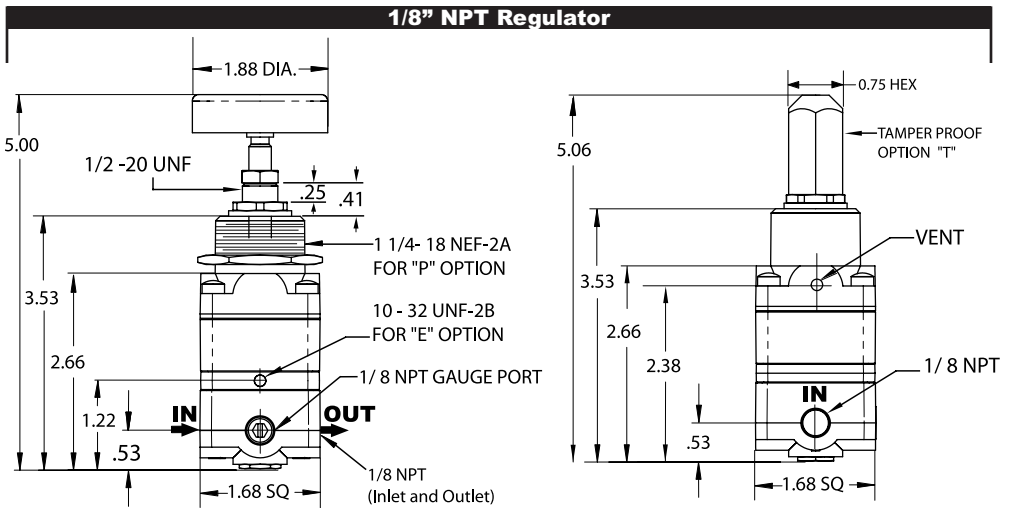
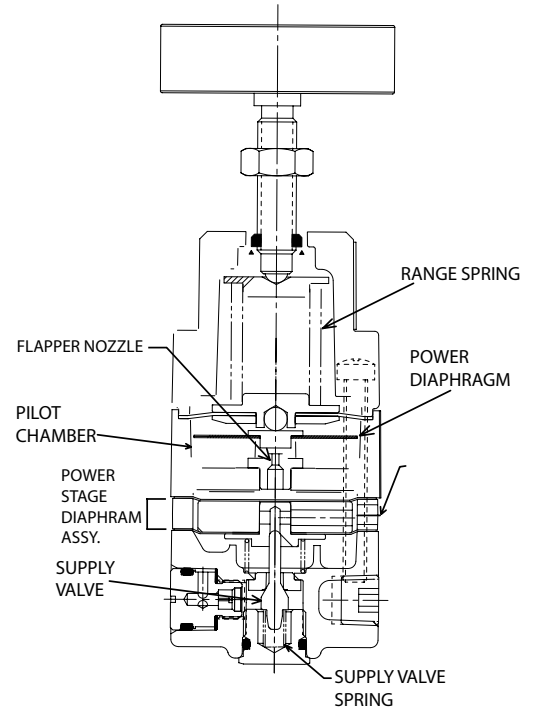


## Features

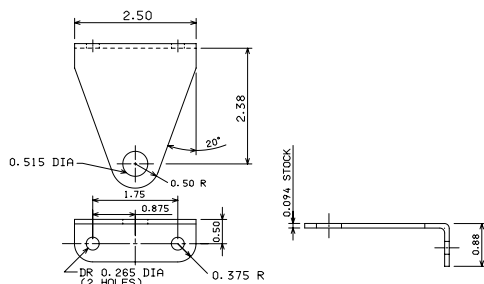
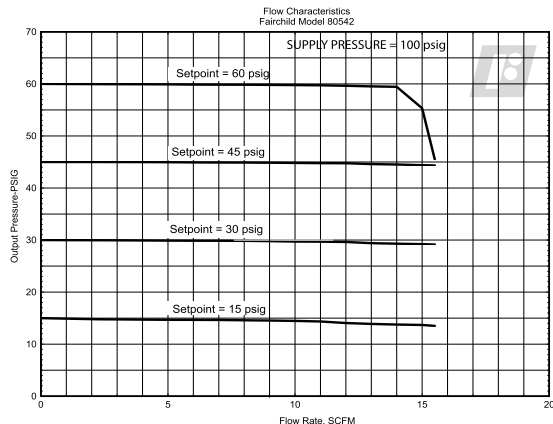
- Force balance and pilot control to minimize drift.
- Excellent frequency response to eliminate output pressure excursions.
- Compact size for installation where space is limited.
- Sapphire Orifice provides precise control of air flow through nozzle.
- Low air consumption for efficient operation.
- Available in 1/8", 1/4" and 3/8" NPT port sizes.

## Operating Principles

The Model 80D is a precision two-stage device that incorporates a force balance design with pilot control. This compact, high quality unit combines the flow capacity of a process regulator with the precision of an instrument regulator.



## Technical Information



## Model 80D Regulator Kits & Accessories

Mounting Bracket Kit.....11989 (sold separately)

## Specifications

### Flow Capacity

14 SCFM (23.8m<sup>3</sup>/HR) (100 psig, [7.0 BAR], (700 kPa) supply; 20 psig, [1.5 BAR], (150 kPa) setpoint)

### Exhaust Capacity

2.5 SCFM (4.25 m<sup>3</sup>/HR) where downstream pressure is 5 psig, [.35 BAR], (35 kPa) above 20 psig setpoint

### Pressure Change under Flow Conditions

Less than 0.1 psig, [.007 BAR], (.7 kPa) from dead end service to 10 SCFM (17 m<sup>3</sup>/HR)

(set pressure 10 psig, [0.7 BAR], (70 kPa) supply pressure 100 psig, [7.0 BAR], (700 kPa)

### Air Consumption

Less than .1 SCFM (.17 m<sup>3</sup>/HR)

### Maximum Supply Pressure

150 psig, [10.0 BAR], (1000 kPa) for 20 psig, [1.5 BAR], (150 kPa) range

250 psig, [17.0 BAR], (1700 kPa) for 60 - 100 psig, [4.0 - 7.0 BAR], (400 - 700 kPa) ranges

### Effect of Supply Pressure Variation

less than .2 psig, [.0014 BAR], (1.4 kPa) for 100 psig, [7.0 BAR], (700 kPa) change in supply pressure

### Ambient Temperature Limits

-40°F to +200°F (-40°C to +93.3°C)

### Materials of Construction

Trim . . . . . Zinc Plated Steel, Stainless Steel and Brass  
 Body . . . . . Aluminum  
 Diaphragms. . . . . Nitrile and Dacron  
 Orifice . . . . . Sapphire

## Catalog Information

Catalog Number

8 0

Pressure Range

psig	[BAR]	(kPa)	
0-20	[0-1.5]	(0-150) . . . . .	43 <sup>1</sup>
1-60	[0.07-4]	(7-400) . . . . .	44 <sup>1</sup>
1-100	[0.07-7]	(7-700) . . . . .	45 <sup>1</sup>
0-20	[0-1.5]	(0-150) . . . . .	53 <sup>2</sup>
1-60	[0.07-4]	(7-400) . . . . .	54 <sup>2</sup>
1-100	[0.07-7]	(7-700) . . . . .	55 <sup>2</sup>

Pipe Size

1/8" NPT . . . . .	1
1/4" NPT . . . . .	2
3/8" NPT . . . . .	3

Options

Tapped Exhaust . . . . .	E
Bonnet Mounting . . . . .	P
Adjustment Screw . . . . .	S
Tamper Proof . . . . .	T
BSPT (Tapered) . . . . .	U

<sup>1</sup> 1/8" NPT Pipe Size Only.

<sup>2</sup> 1/4" or 3/8" NPT Pipe Size Only.

## Service Information

A service kit is available for the Model 80D. Please refer to the *Fairchild Model 80D Pressure Regulator Installation, Operation and Maintenance Manual*, IS-1000080D.