

Model  
80D

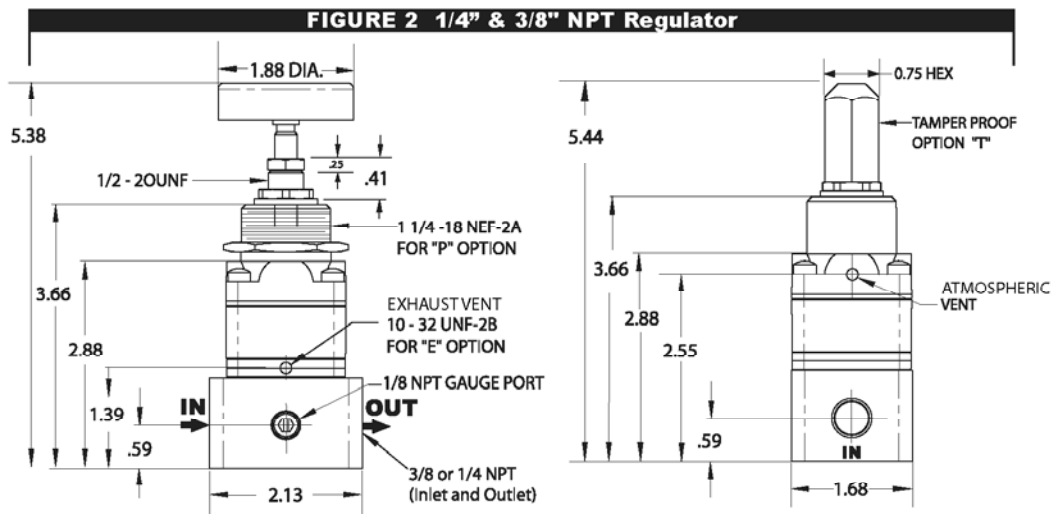
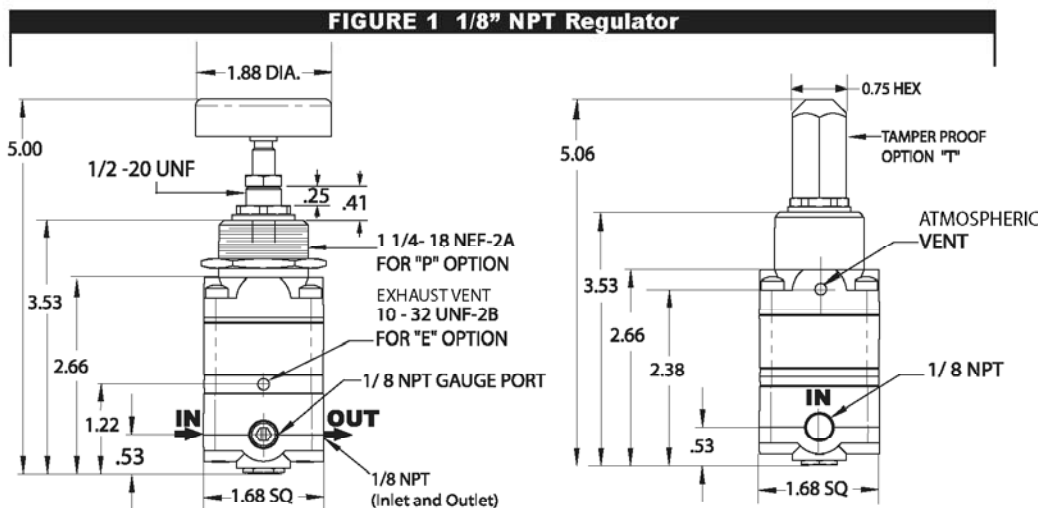
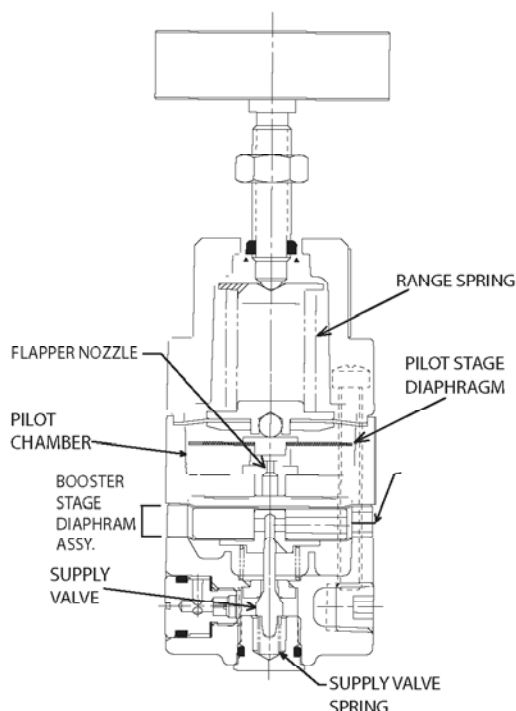


### Features

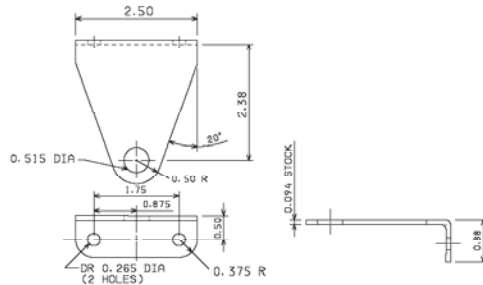
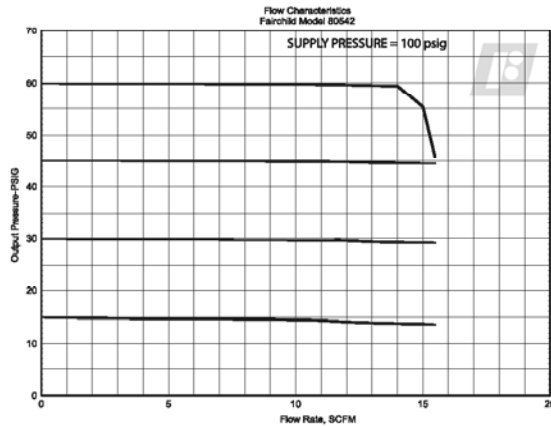
- Force balance and 2 stage pilot control to minimize droop.
- Excellent frequency response to eliminate output pressure excursions.
- Compact size for installation where space is limited.
- Sapphire Orifice provides precise control of pilot control air flow.
- Low air consumption for efficient operation.
- 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 (23.8 m<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)

Sensitivity

Less than 0.1" (.254 cm) Water Column

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  
Body ..... Aluminum  
Diaphragms ..... Nitrile and Dacron  
Orifice ..... Sapphire

Catalog Information

<b>Catalog Number</b>	<b>8 0 5</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Pressure Range</b>				
<b>psig</b>	<b>[BAR]</b>	<b>(kPa)</b>		
0-20	[0-1.5]	(0-150).....	3	
1-60	[0.07-4]	(7-400).....	4	
1-100	[0.07-7]	(7-700).....	5	

Pipe Size

1/8" NPT <sup>1</sup> .....	1
1/4" NPT <sup>2</sup> .....	2
3/8" NPT <sup>2</sup> .....	3

<sup>1</sup> FIGURE 1 on Pg. 40 Shows 1/8" port body style

<sup>2</sup> FIGURE 2 on Pg. 40 shows 1/4 and 3/8" port body style

Options

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

Service Information

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