

Model 70B Pneumatic Subminiature Regulator

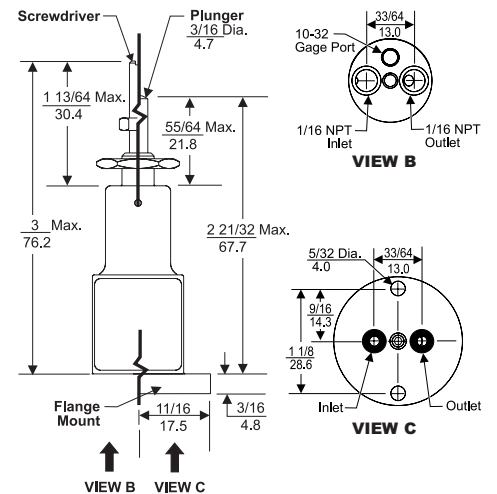
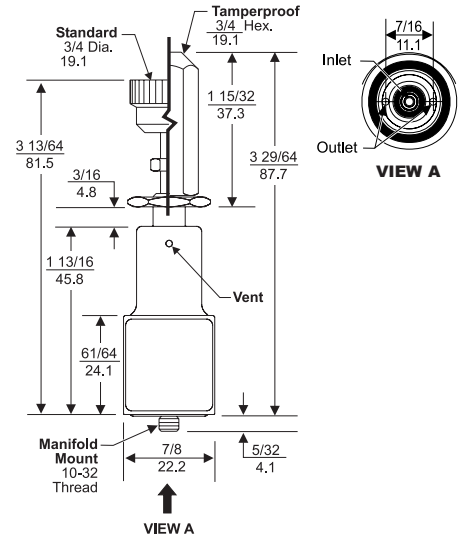
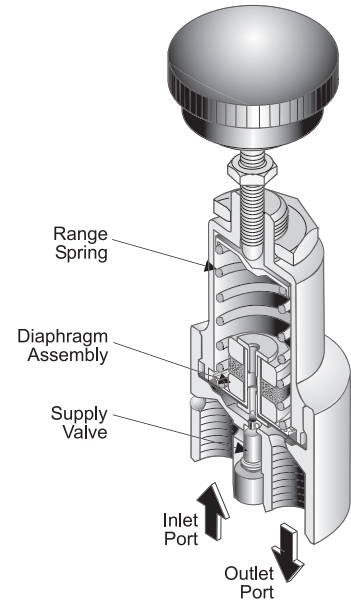


Features

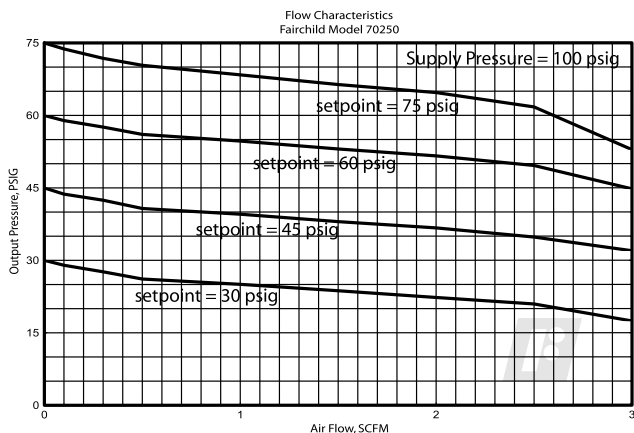
- The Model 70B controls a pressure signal for pneumatic instrumentation. This regulator is ideally suited for applications with limited space.
- Vibration damper provides low noise operation.
- Repeatability within 0.06 psig dead ended allows accurate setpoint control.
- Small size allows installation in restrictive spaces.

Operating Principles

When the setpoint is reached, the upward force of the output pressure that acts on the bottom of the Diaphragm balances with the downward force that acts on the top of the Diaphragm. If the output pressure rises above the setpoint, the force that acts on the bottom of the Diaphragm moves the Diaphragm Assembly upward to close the Supply Valve and open the Relief Valve. Excess output pressure exhausts through the Vents in the unit until it reaches the setpoint. The Vibration Damper dampens the throttling action of the Valve.



Technical Information



Specifications

Supply Pressure

250 psig, [17.0 BAR], (1700 kPa) Maximum
50 psig, [3.5 BAR], (350 kPa) Minimum

Flow Capacity

2.5 SCFM (4.25 m³/HR) @ 100 psig, [7.0 BAR], (700 kPa) supply and 30 psig, [2.0 BAR], (200 kPa) setpoint

Exhaust Capacity

0.28 SCFM (.48 m³/HR) where downstream pressure is 5 psig, [.35 BAR], (35 kPa) above 20 psig, [1.5 BAR], (150 kPa) setpoint

Supply Pressure Effect

Less than 0.05 psig, [.0035 BAR], (.35 kPa) for 5 psig [.35 BAR], (35 kPa) change in supply pressure

Ambient Temperature

-40° F to + 160° F (-40° C to + 71° C)

Materials of Construction

Body Brass
Diaphragms Fluorocarbon
Trim Zinc Plated Steel

Catalog Information

Catalog Number **702**

Pressure Range

psig	[BAR]	(kPa)	
0-5	[0-0.35]	(0-35)	1
0-15	[0-1]	(0-100)	2
0.5-30	[0.035-2]	(3.5-200)	3
1-60	[0.07-4]	(7-400)	4
2-100	[0.15-7]	(15-700)	5

Options

- Flange Mounted ¹
- Manifold Mounted
- Non-Relieving
- Plunger Operated ²
- Screwdriver Adjust
- Tamperproof
- M5 x 0.8 Threaded
- In/Out Ports

Table 1. Option Availability

	F	M	N	R	S	T	V
Flange Mounted ¹	F	-	N	Y	Y	Y	N
Manifold Mounted	M	N	-	Y	Y	Y	N
Non-Relieving	N	Y	Y	-	Y	Y	Y
Plunger Operated ²	R	Y	Y	Y	-	N	Y
Screwdriver Adjust	S	Y	Y	Y	N	-	Y
Tamperproof	T	Y	Y	Y	N	Y	-
M5 x 0.8 Threaded	V	N	N	Y	Y	Y	-

¹ Supplied with Knob as Standard.

² Refer to Table 2 for Push Rod Travel and Thrust.

Table 2. Plunger Operated Regulator Parameters

Range	Push Rod Travel (inches)	Push Rod Thrust (pounds) @ Max. Output
0-5 psig [0-0.35 BAR] (0-35 kPa)	.31 ± 10%	1.25 ± 10%
0-15 psig [0-1 BAR] (0-100 kPa)	.34 ± 10%	3.75 ± 10%
0.5-30 psig [0.035-2 BAR] (3.5-200 kPa)	.34 ± 10%	7.50 ± 10%
1-60 psig [0.07-4 BAR] (7-400 kPa)	.34 ± 10%	15.00 ± 10%
2-100 psig [0.15-7 BAR] (15-700 kPa)	.34 ± 10%	25.00 ± 10%