Type 700
Precision Air Pressure Regulator
For applications that require high flow capacity

The Type 700 is designed for applications that require high flow capacity and accurate process control. A poppet valve balanced by a rolling diaphragm insures a constant output pressure even during wide supply pressure variations. Stability of regulated pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the air supply in accordance with the flow velocity.

Features

- **High Flow Capacity**
  Allows flows up to 80 scfm (2,264 Nl/min)

- **Sensitive**
  Senses output pressure deviations to within 1/8 inch water column pressure

- **Stable Output**
  Dampening action of aspirator tube makes this regulator insensitive to changes in flow

- **On-line Maintenance**
  Can be serviced without removal from air line

Specifications

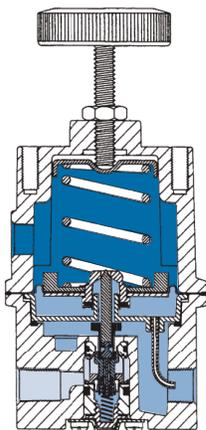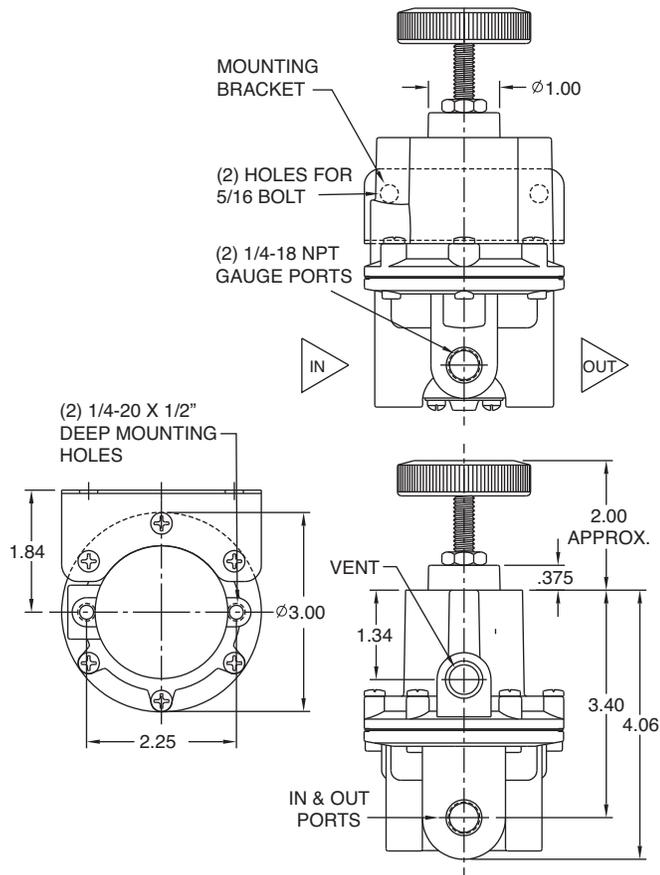|	
Flow Capacity	See performance curves
Exhaust Capacity	4 scfm (120 Nl/min) [downstream pressure 5 psi (.35 BAR) above set pressure]
Sensitivity	1/8" (3.2 mm) water
Effect of Supply Pressure Variation on Output	Less than 0.1 psi (.007 BAR) for 100 psi (6.7 BAR) change
Air Consumption, Maximum	Steady State: From 1.0 to 12.5 scfh (30 to 375 Nl/min), depending on output pressure range
Supply Pressure	250 psig (17.5 BAR) Maximum
Operating Temperature	-40°F to 160°F (-40°C to 71°C)
Weight	1 lb, 10 oz (.74 kg)
Mounting	Pipe, panel, or bracket
Port Sizes	1/4", 3/8" or 1/2" NPT/BSP
Output Pressure Ranges	0-2 psi (0-0.15 BAR), 0-15 psi (0-1.0 BAR) 0-30 psi (0-2.0 BAR), 0-60 psi (0-4.0 BAR) 0-150 psi (0-10 BAR)

Materials of Construction

Body	Diecast aluminum alloy
Internal Components	Stainless steel, brass, plated steel, acetal
Diaphragm	Buna-N elastomer, polyester fabric
Knob	Phenolic plastic

Dimensions

MOUNTING BRACKET

Ø1.00

(2) HOLES FOR 5/16 BOLT

(2) 1/4-18 NPT GAUGE PORTS

IN

OUT

(2) 1/4-20 X 1/2" DEEP MOUNTING HOLES

1.84

Ø3.00

2.25

VENT

2.00 APPROX.

.375

1.34

3.40

4.06

IN & OUT PORTS

- Atmosphere
- Output
- Supply

Ordering Use this coding system to order

Model
700 –

Port Size (NPT)

B 1/4"
C 3/8"
D 1/2"

Range

A 0-2 psi (0-0.15 BAR)
C 0-15 psi (0-1.0 BAR)
D 0-30 psi (0-2.0 BAR)
E 0-60 psi (0-4.0 BAR)
F 0-150 psi (0-10 BAR)

Options

C Check Valve: integral safety device which quickly dumps output pressure when there is a loss of supply air
E Tapped Exhaust: allows captured exhaust. 1/4" NPT port
H High Bleed: provides more dynamic performance at lower pressure and flow rates
K Stainless Steel Knob Stem, knob itself is phenolic plastic
L Low Bleed: reduces steady state air consumption by 50%
N Non-Relieving: for constant flow or downstream pressure relief applications
S Stainless Steel Adjust Screw: hex head stainless steel adjust screw for maximum corrosion resistance
T Tamper-proof Cover: prevents casual adjustment of output pressure
U BSP Porting
X ATEX 94/9/EC Approval II 2 GD

Flow Characteristics

100 psig supply

OUTPUT psig (BAR)	
80	(5.5)
75	(5.2)
70	(4.8)
65	(4.5)
60	(4.1)
55	(3.8)
50	(3.5)
45	(3.1)
40	(2.8)
35	(2.4)
30	(2.1)
25	(1.7)
20	(1.4)
15	(1.03)
10	(0.69)
5	(.34)

0-150 psig (0-10.0 BAR) 3/8" NPT

0-60 psig (0-4.0 BAR) 1/4" NPT

0-30 psig (0-2.0 BAR) 1/4" NPT

0-15 psig (0-1.0 BAR) 1/4" NPT

0-2 psig (0-0.15 BAR) 1/4" NPT

FLOW, scfm (Nl/min)

5 (150) 10 (300) 15 (450) 20 (600) 25 (750) 30 (900) 35 (1050) 40 (1200) 45 (1350) 50 (1500) 55 (1650) 60 (1800) 65 (1950) 70 (2100) 75 (2250) 80 (2400)
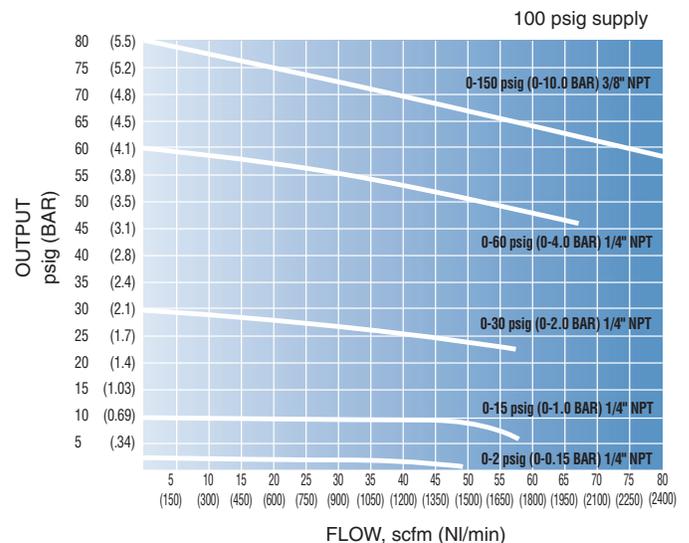
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