

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 (135.9 m³/hr)
- **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 NI/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 NI/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



Type 700

Ordering Information

Type 700 Dimensions

Use this coding system to order

700 — — — — **Options**

Model

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)

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

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

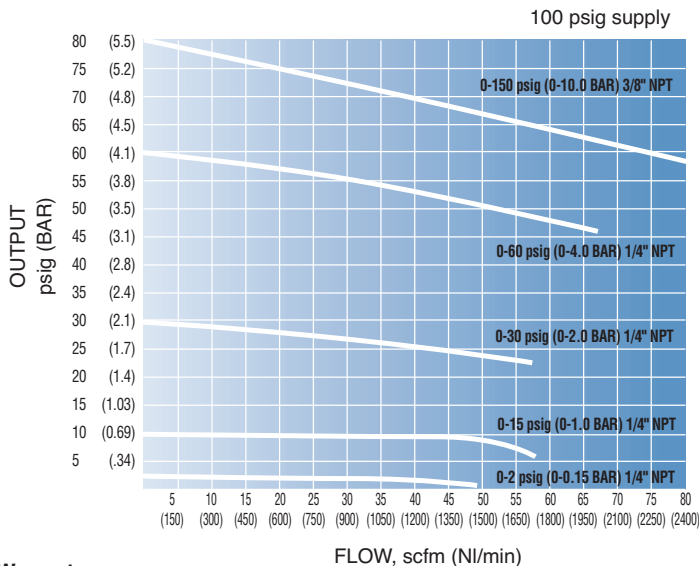
U - BSP Porting

X - ATEX 94/9/EC Approval II 2 GD

Accessories

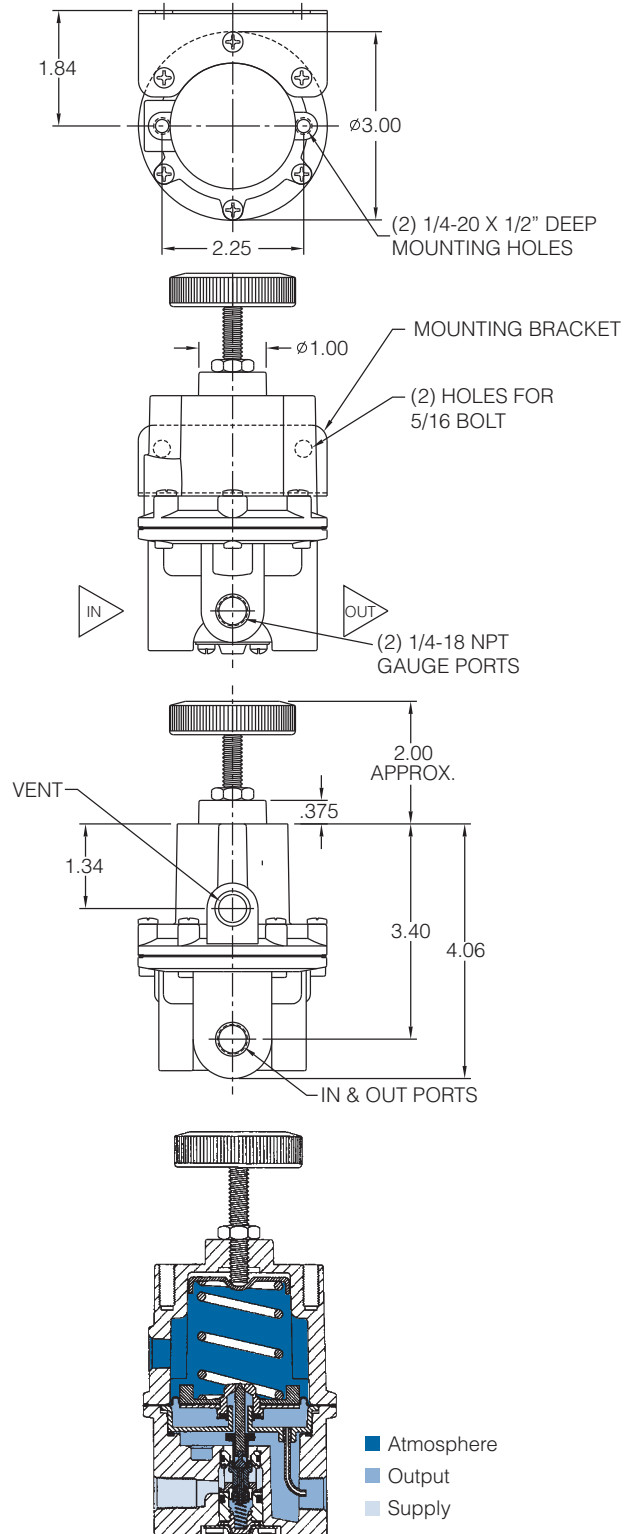
Gauges: 0-15 PSI (0-.15 BAR)	P/N 446-725-003
0-30 PSI (0-2.0 BAR)	P/N 446-725-004
0-60 PSI (0-4.0 BAR)	P/N 446-725-001
0-160 PSI (0-11 BAR)	P/N 446-725-002
Mounting Bracket:	P/N 446-707-025

Flow Characteristics



Warranty

ControlAir, Inc. products are warranted to be free from defects in materials and workmanship for a period of eighteen months from the date of sale, provided said products are used according to ControlAir, Inc. recommended usages. ControlAir, Inc.'s liability is limited to the repair, purchase price refund, or replacement in kind, at ControlAir, Inc.'s sole option, of any products proved defective. ControlAir, Inc. reserves the right to discontinue manufacture of any products or change products materials, designs or specifications without notice. Note: ControlAir does not assume responsibility for the selection, use, or maintenance of any product. Responsibility for the proper selection, use, and maintenance of any ControlAir product remains solely with the purchaser and end user.



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