



# Type 7100

## Precision Air Pressure Regulator

Superior accuracy and stability with high forward and reverse flow capacity

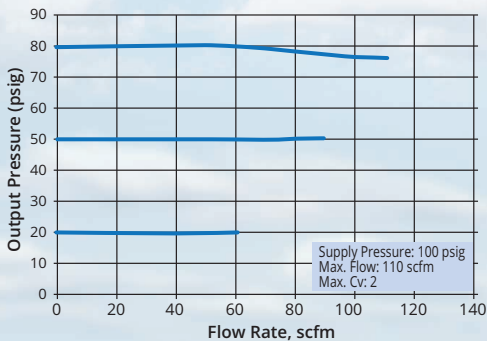
The Type 7100 is a high precision, multi-stage pressure regulator offering fine adjustment and maximum stability under variable operating conditions. The Type 7100 combines the proven and reliable technology of the ControlAir Type 100 with the high forward and reverse flow of the Type 6100, 1:1 Relay Volume Booster. A highly sensitive capsule controls the pilot pressure which offers crisp and accurate adjustment, superior to conventional spring operated regulators.

### Features

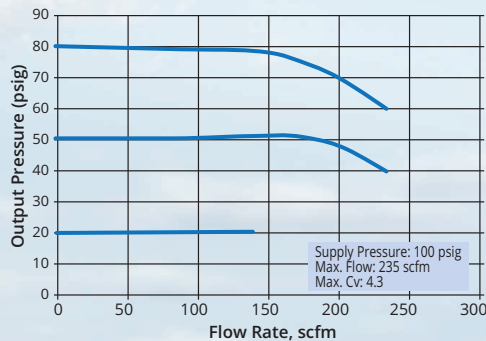
- **1/4", 1/2" or 3/4" NPT Porting**
- **Two 1/4" NPT Gauge Ports**
- **Adjustment Control**  
Standard tension nut prevents inadvertent pressure adjustment.
- **High Flow Capacity**  
See flow curves.
- **Superior Sensitivity**  
Senses output pressure deviations to within 1/4 inch water column pressure.
- **Stable output**  
Isolated control chamber prevents output variation and vibration during flow conditions.
- **Balanced Supply Valve**  
Virtually eliminates output pressure changes due to supply pressure variations.



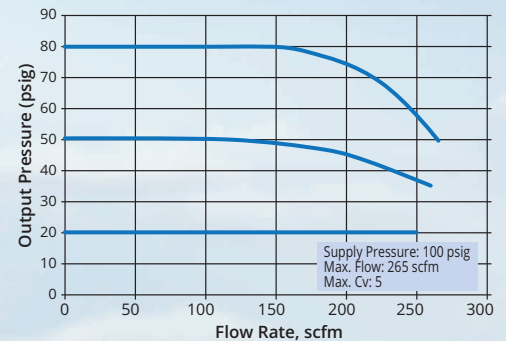
Regulated Pressure vs Flow: 1/4" Type 7100



Regulated Pressure vs Flow: 1/2" Type 7100



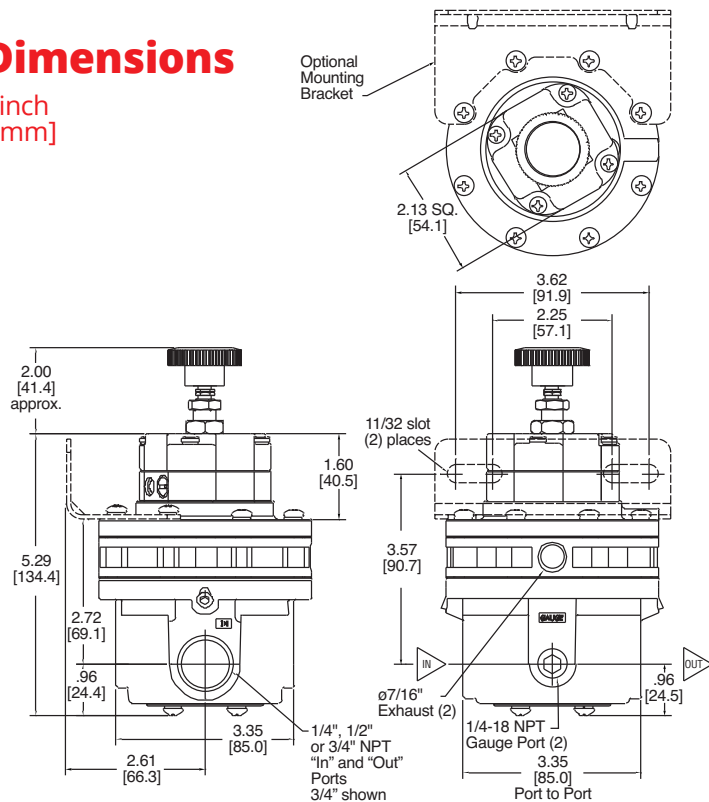
Regulated Pressure vs Flow: 3/4" Type 7100



# Type 7100 Precision Air Pressure Regulator

## Dimensions

inch  
[mm]



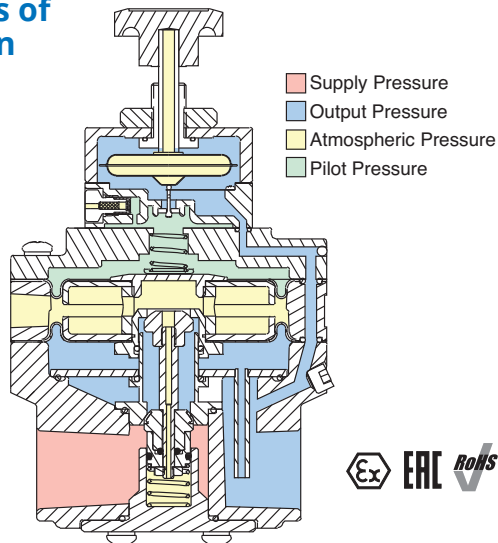
## Specifications

<b>Supply Pressure</b>	250 psig (17.0 BAR) maximum		
<b>Air Consumption</b>	14 scfh (6.6 NL/min)		
<b>Temperature Limits</b>	-20 to 160 °F (-29 to 71 °C)		
<b>Maximum Flow Coefficients (Cv)</b>	<b>Port</b>	<b>Forward</b>	<b>Exhaust</b>
	3/4"	5.0	3.5
	1/2"	4.5	3.5
	1/4"	2.0	2.5
<b>Exhaust Capacity</b>	3/4"	80 scfm (2,264 NL/min)	
	1/2"	75 scfm (2,123 NL/min)	
	1/4"	35 scfm (991 NL/min)	
<b>Sensitivity</b>	Less than 1/4 inch (6.3 mm) water		
<b>Effect of Supply Pressure Variation on Output</b>	.05 psig (3.4m BAR) for a 100 psig (6.9 BAR) change		
<b>Mounting</b>	Pipe, panel or bracket		
<b>Supply/Output Port</b>	1/4", 1/2", or 3/4" NPT		
<b>Exhaust Port (2)</b>	ø7/16" or 1/4" NPT option		
<b>Gauge Port (2)</b>	1/4" NPT		
<b>Weight</b>	2.5 lbs (1.13 kg)		

## Materials

<b>Housing</b>	Diecast aluminum alloy and zinc alloy
<b>Bolting</b>	Zinc Plated Steel
<b>Knob</b>	Phenolic plastic
<b>Internal components</b>	Stainless steel, plated steel, brass, aluminum
<b>Elastomers</b>	Nitrile

## Principles of Operation



**Warranty** ControlAir LLC 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 LLC recommended usages. ControlAir LLC's liability is limited to the repair, purchase price refund, or replacement in kind, at ControlAir LLC's sole option, of any products proved defective. ControlAir LLC 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. Drawing downloads available at [www.controlair.com](http://www.controlair.com)

## Ordering Use this coding system to order

### Model

**7100**

### Port Size (NPT)

B 1/4"  
D 1/2"  
E 3/4"

### Range

A 2-40 psig (0.14-2.7 BAR)  
B 2-60 psig (0.14-4.1 BAR)  
C 2-120 psig (0.14-8.2 BAR)

### Options

**E** Tapped Exhaust: allows captured exhaust from the (2) 1/4" NPT spacer ports and barbed bleed screw

**T** Tamper-proof Cover: prevents casual adjustment of output pressure

**X** ATEX 2014/34/EU

## Accessories

**Mounting Bracket (zinc plated steel):** P/N 449-542-045

**1/4" NPT Exhaust Screen/Muffler Fitting:**

Plated Steel: P/N 445-761-008

(Unit must have 'E' tapped exhaust option)



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