



Type 6100

High Flow Capacity Volume Booster

Rapid Stroke Capability

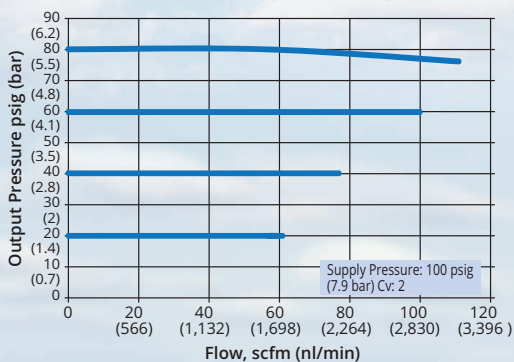
The ControlAir Type 6100 aluminum volume booster is a 1:1 signal to output relay that is utilized in applications that require high forward flow and exhaust capacities. Typically they are used to increase throttling speed of large volume valve actuators. They are suitable for either diaphragm or piston actuators. A fixed deadband and adjustable bypass valve combine to allow small incremental downstream adjustment without opening the main booster valve. The bypass valve is used to adjust dynamic response to provide stable operation over a wide range of actuator sizes.

Features

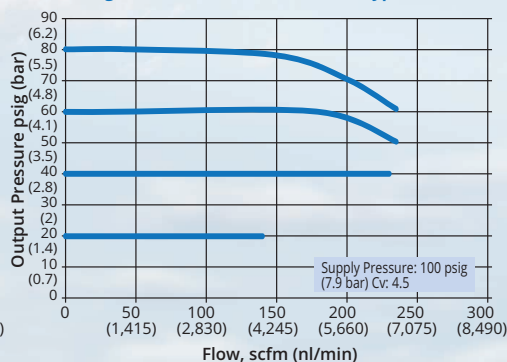
- **1/4", 1/2" or 3/4" NPT Porting**
- **Integral Adjustable Bypass Valve**
Allows small incremental signal changes without opening the primary valve
- **High Flow Capacity**
For rapid actuator stroking
- **Soft Valve Seat Design** Provides tight shutoff and eliminates leakage in steady state operation
- **High Temperature Operation**
Up to 200°F (93°C)
- **2 High Output Exhaust Vents**
1/4" NPT exhaust vents optional
- **2 1/4" NPT Gauge Ports**
- **Balanced Supply Valve**
Minimizes the effect of supply pressure variation
- **Optional Negative Bias**
4 psi (0.3 bar) negative bias of signal pressure to 'zero' I/P's



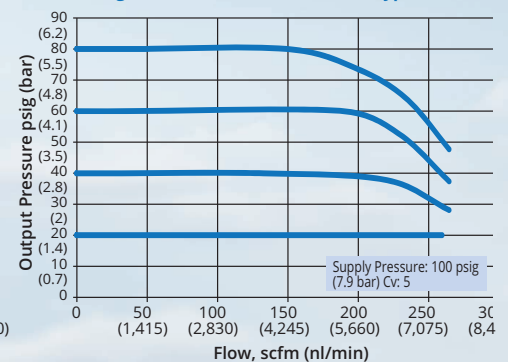
Regulated Pressure vs Flow: 1/4" Type 6100



Regulated Pressure vs Flow: 1/2" Type 6100

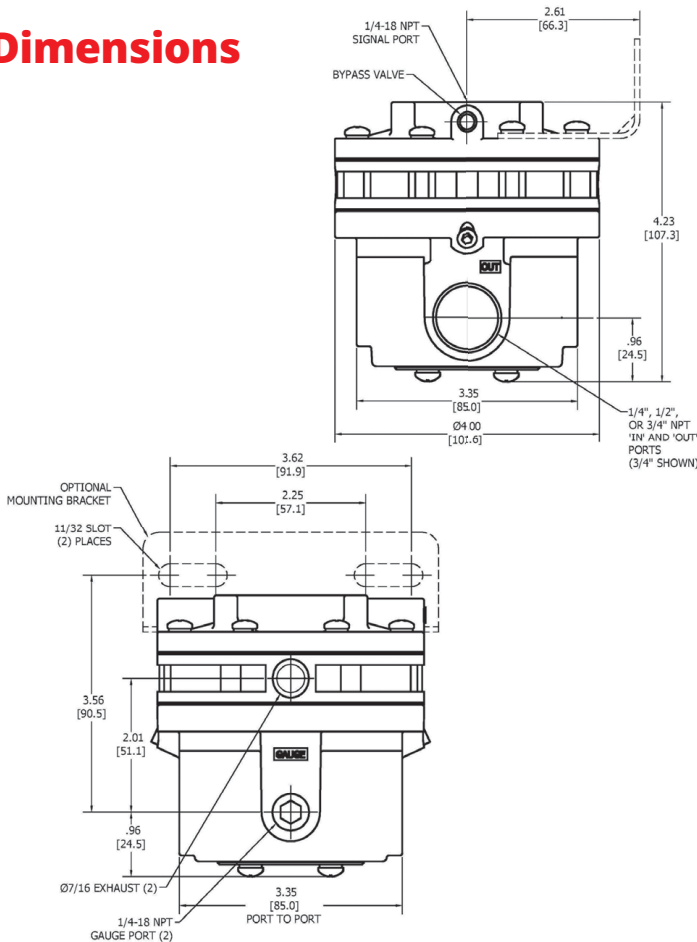


Regulated Pressure vs Flow: 3/4" Type 6100

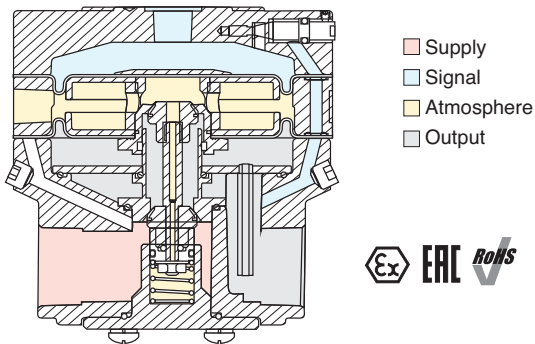


Type 6100 High Flow Capacity Volume Booster

Dimensions



Principles of Operation



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Specifications

Signal/Output Ratio	1:1		
Supply Pressure	250 psig (17.0 bar) Maximum		
Signal Pressure	150 psig (10.0 bar) Maximum		
Temperature Limits	-40 to 200 ° F (-40 to 93 ° C)		
Maximum Flow Coefficients (Cv)	Port	Forward	Exhaust
	3/4"	5.0	3.5
	1/2"	4.5	3.5
	1/4"	2.0	2.5
Exhaust Capacity	3/4"	80 scfm (2,264 NL/min)	
5 psig (0.35 bar) above	1/2"	75 scfm (2,123 NL/min)	
20 psig (1.38 bar) setpoint	1/4"	35 scfm (991 NL/min)	
Output Accuracy	1.0% of 100 psi output span		
Sensitivity	1" H ₂ O (2.54 cm)		
Deadband	Under 0.2 psig (.01 bar)		
Supply Pressure Effect	0.1 psig (.007 bar) for a 25 psig (1.7 bar) change		
Signal Port	1/4" NPT		
Supply/Output Port	1/4", 1/2", or 3/4" NPT		
Exhaust Port	ø7/16" or 1/4" NPT option		
Gauge Port (2)	1/4" NPT		
Weight	2.5 lbs (1.13 kg)		

Materials

Housing	Aluminum
Bolting	Zinc Plated Steel
Other trim	Aluminum
Internal components	Aluminum
Elastomers	Nitrile
Low Temperature	Silicone

Ordering

Part Number	Porting
6100-BA	1/4" NPT
6100-DA	1/2" NPT
6100-EA	3/4" NPT

Options Add proper letter at end of model number.

- E** 1/4" NPT Tapped Exhaust (2)
- L** Low Temperature: -62 to 194 ° F (-52 to 90 ° C)
- R** EAC TR-CU
- S** Stainless Steel Trim
- X** ATEX 2014/34/EU
- Z** Negative Bias -4 +/-1 psi bias

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)



8 Columbia Drive / Amherst, NH 03031 USA / www.controlair.com / sales@controlair.com / 603-886-9400 / FAX 603-889-1844

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