

Type 6500/6600

Large Flow Capacity Volume Booster

Rapid Stroke Capability in a Rugged Aluminum or Stainless Steel Casing

The ControlAir Type-6500 aluminum and Type-6600 stainless steel volume boosters are 1:1 signal to output relays that are utilized in applications that require high flow capacity. 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

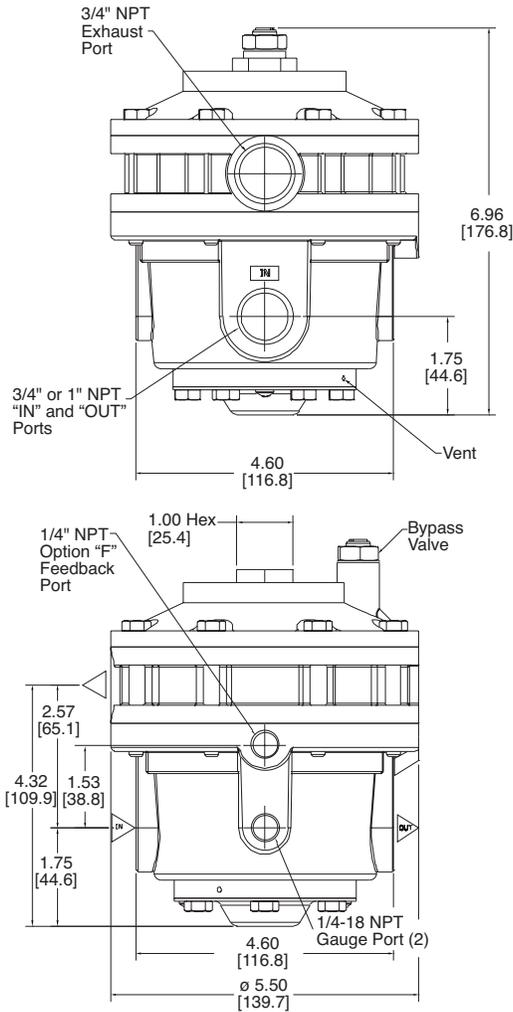
- **Aluminum or 316 Stainless Steel Construction**
- **3/4" or 1" NPT Porting**
- **Integral Adjustable Bypass Valve**
Eliminates "hunting" by allowing the booster to directly respond to small incremental signal changes without opening the primary valve.
- **High Flow Capacity**
Large input signal changes open main valve to deliver up to 400 scfm (11,320 NL/min) 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)
- **Tapped High Output Exhaust Port**
3/4" NPT exhaust port relieves 100 scfm (2,830 NL/min) at 5 psig above setpoint
- **2 Gauge Ports - Optional Output Feedback Port**

Materials of Construction

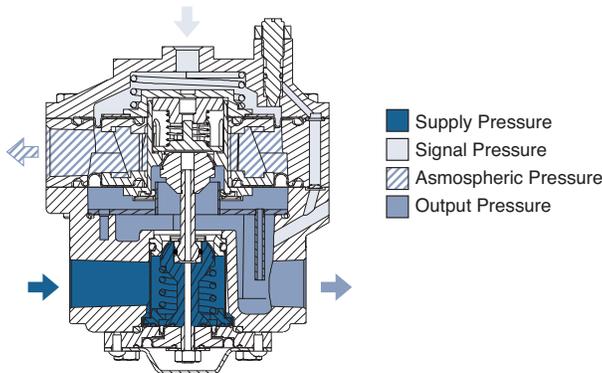
Materials	Type-6500	Type-6600
Housing	Aluminum	316 Stainless Steel
Bolting	Zinc Plated Steel	316 Stainless Steel
Other trim	Aluminum	316 Stainless Steel
Internal components	Aluminum	Stainless Steel
Elastomers	Nitrile	Nitrile



Type 6500/6600 Dimensions



Principles of Operation



Type 6500/6600 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)	Forward	Exhaust
	3/4" 6.0	5.0
	1" 7.0	5.0
Flow Capacity 100 psig (7 BAR) supply, 20 psig (1.4 BAR) Output	3/4" 350 scfm (9,905 NL/min)	1" 400 scfm (11,320 NL/min)
Exhaust Capacity 5 psig (0.35 BAR) above setpoint	3/4" 100 scfm (2,830 NL/min)	1" 100 scfm (2,830 NL/min)
Signal to Output Ratio Accuracy		
% of 100 psi output span	2.0%	
% of 15 psi output span	1.5%	
Deadband	Under 0.2 psig (.01 BAR)	
Supply Pressure Effect 100 psig (7 BAR) change in supply pressure	0.3 psig (.02 BAR)	
Signal Port	1/4" NPT	
Supply/Output Port	3/4" or 1" NPT	
Exhaust Port	3/4" NPT	
Gauge Port (2)	1/4" NPT	
Feedback Port (Option)	1/4" NPT	
Weight		
Type-6500 Aluminum	6.5 lbs (2.95 kg)	
Type-6600 Stainless Steel	15.0 lbs (6.80 kg)	

Ordering Information

Part Number	Casting Material	Porting
6500-EA	Aluminum	3/4" NPT
6500-FA	Aluminum	1" NPT
6600-ES	316 Stainless Steel	3/4" NPT
6600-FS	316 Stainless Steel	1" NPT

Option

Feedback Port Add "F" to end of part number

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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