



Type 6000

Volume Booster

High Flow Capacity in a Rugged
Aluminum or Stainless Steel Casing

The Type 6000 Volume Booster is a one-to-one signal to output relay that, when used with a positioner/actuator, is designed to increase the stroking speed of control valves. An integral bypass valve allows you to tailor the output force to meet the application requirements. Large signal changes to the booster can deliver high volume, fast action throttling control while smaller signal changes are dampened. When used with on/off control valves, the bypass can be closed for increased stroking speed. The T6000 is available in aluminum or stainless steel construction.

Features

- **Fast Response** Delivers high air volume for rapid actuator stroking
- **Adjustable Bypass Valve** Tunes unit response to eliminate actuator overshoot or overdamping
- **Soft Seat Sealing** Provides tight shut-off to reduce costly air consumption
- **Corrosion and Wear Resistant Construction** Stainless steel external trim and internal wear parts
- **Available in Aluminum or Stainless Steel**
- **Choice of Porting** 1/2" or 3/4" NPT supply and output ports

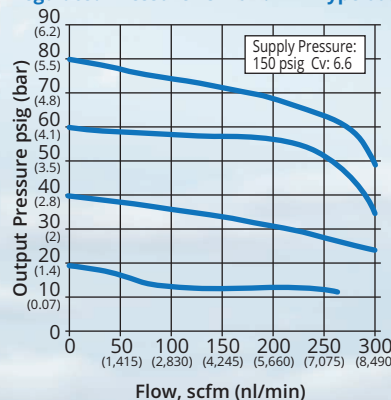
Materials of Construction

| | |
|----------------------------|---------------------------------|
| Body/Bonnet/Spacer: | Aluminum or 316 Stainless Steel |
| Diaphragms: | Nitrile / Nylon |
| Springs: | 304 Stainless Steel |
| Plug: | Stainless Steel / Nitrile |
| Seat Ring: | Brass or Stainless Steel |
| Trim: | Stainless Steel |
| Bypass Valve: | Stainless Steel |

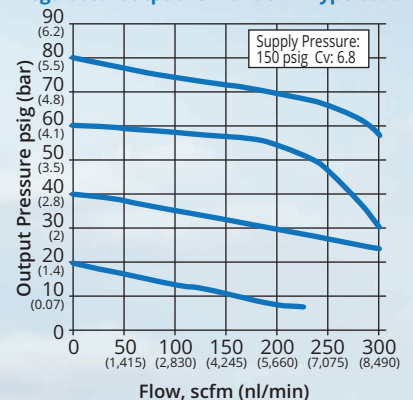
Note: Versions available with EPDM or Silicone elastomers and stainless steel internals. Consult factory for availability.



Regulated Pressure vs Flow: 1/2" Type 6000

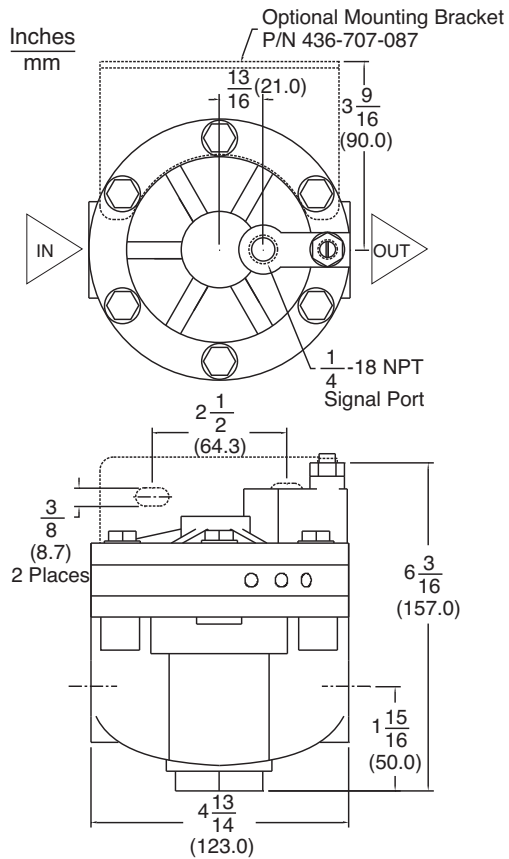


Regulated Output vs Flow: 3/4" Type 6000

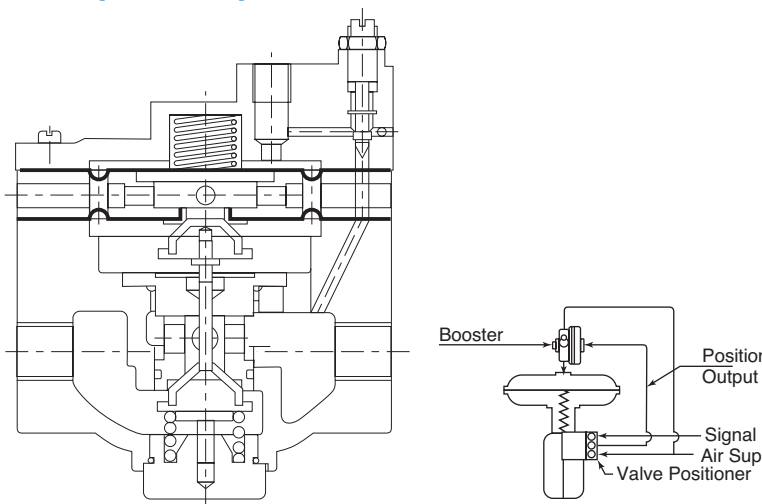


Type 6000 Volume Booster

Dimensions



Principles of Operation



Specifications

| | | |
|---------------------------------------|---|-------------------|
| Supply Pressure | 150 psig (10 bar) maximum. Not to exceed actuator rating. | |
| Signal Pressure | 150 psig (10 bar) maximum. | |
| Maximum Flow Coefficients (Cv) | 1/2" - Forward: 6.6 / Exhaust: 5.8 3/4" - Forward: 6.8 / Exhaust: 5.8 | |
| Flow Capacity | 300 scfm (7,075 NI/min) | |
| Deadband | Under 0.25 psig (0.017 bar) | |
| Signal to Output Ratio | 1:1 ± 5% of 100 psi output span | |
| Temperature Limits | -40° to 160° F (-40° to 71° C) standard EPDM Option "R" Silicone Option "H" -40° to 230° F (-40° to 110° C) -61° to 230° F (-52° to 110° C) | |
| Signal Port | 1/4" NPT | |
| Supply/Output Port | 1/2" or 3/4" NPT | |
| Weight | Aluminum | 5 lbs. (2.3 kg) |
| | Stainless Steel | 11.7 lbs (5.3 kg) |

Ordering

| Part Number | In/Out Port | Output Range (psig/bar) | Construction |
|-------------|-------------|-------------------------|-----------------|
| 6000-DA | 1/2" NPT | 0-150 / 10.0 | Aluminum |
| 6000-EA | 3/4" NPT | 0-150 / 10.0 | Aluminum |
| 6000-DS | 1/2" NPT | 0-150 / 10.0 | Stainless Steel |
| 6000-ES | 3/4" NPT | 0-150 / 10.0 | Stainless Steel |

Options Add proper letter to end of model number

- E** EAC TR-CU
- H** Silicone Elastomers
- R** EPDM Elastomers
- X** ATEX 2014/34/EU

Accessories

Mounting Bracket (304 stainless steel): P/N 436-707-067

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



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