Type 6500/6600

Large Flow Capacity Volume Booster

Rapid Stroke Capability in a Rugged Aluminum or Stainless Steel Casing

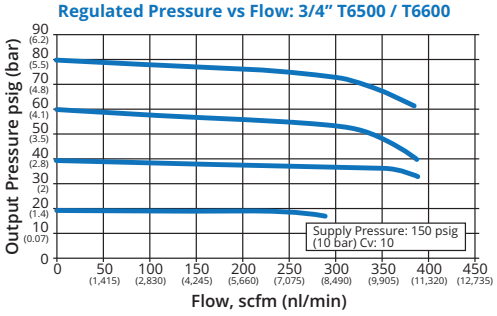
SIL3

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.

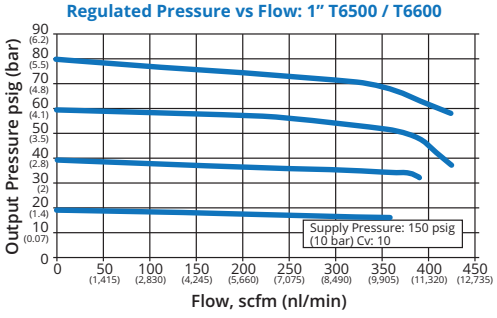
F E A T U R E S

- 316 Stainless Steel Construction
- ¾" or 1" 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)
- Tapped High Output Exhaust Port 3/4" NPT exhaust port relieves 100 scfm (2,830 NL/min)
- 2 Gauge Ports - Optional Output Feedback Port
- IEC 65108 SIL 3 Compliant
- Low Temperature Option - silicone elastomers allow use to -62˚F (-52˚C)

Regulated Pressure vs Flow: 3/4" T6500 / T6600

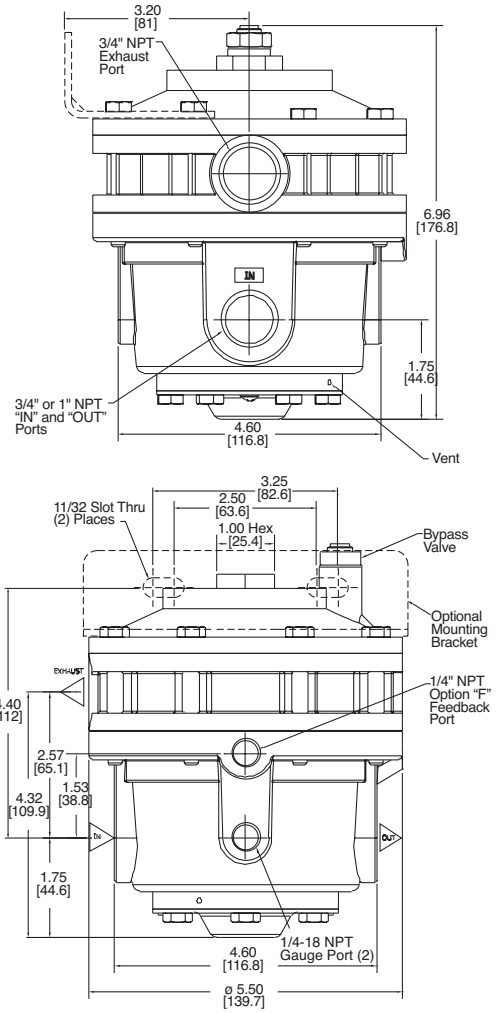


Regulated Pressure vs Flow: 1" T6500 / T6600

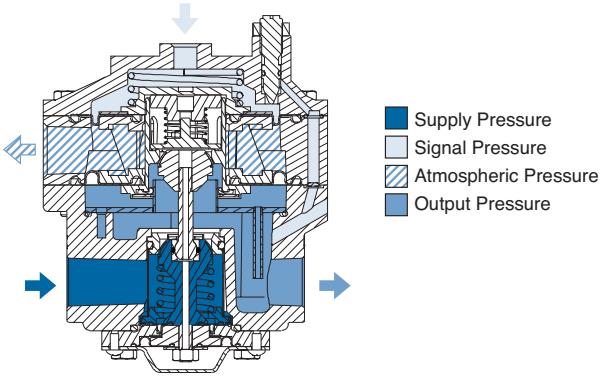


ControlAir Inc.

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 Low temperature option	-40 to 200˚F (-40 to 93˚C) -62 to 194˚F (-52 to 90˚C)
Maximum Flow Coefficients (Cv)	Forward / Exhaust ¾" 8.0 / 8.0 1" 9.0 / 8.0
Exhaust Capacity 5 psig (0.35 BAR) above setpoint	¾" 150 scfm (4,245 NL/min) 1" 150 scfm (4,245 NL/min)
Output Accuracy	2.0% of span
Deadband	Under 0.2 psig (.01 BAR)
Suppy Pressure Effect	0.3 psig (0.02 BAR) for a 100 psig (7 BAR) change
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 Type-6600 Stainless Steel	 6.5 lbs (2.95 kg) 15.0 lbs (6.80 kg)

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 Low Temperature Option:	Nitrile Silicone	Nitrile Silicone

Ordering Information

Part Number	Casting Material	Porting
6500-EA	Aluminum	¾" NPT
6500-FA	Aluminum	1" NPT
6600-ES	316 Stainless Steel	¾" NPT
6600-FS	316 Stainless Steel	1" NPT

Options Add proper letter at end of model number.

F	Feedback Port
L	Low Temperature Operation
R	EAC TR-CU
S	Stainless Steel Trim (Type-6500 only)
X	ATEX 94/9/EC

Accessories

Mounting Bracket (zinc plated steel): P/N 449-542-040

Mounting Bracket (316 stainless steel): P/N 449-542-041

3/4" NPT Exhaust Screen/Muffler Fitting:
Plated Steel: P/N 445-761-006
316 Stainless Steel: P/N 445-761-007

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.

P/N 441-625-064 2/3/17

SIL3 RoHS EAC Ex

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