

Design Concepts

Eaton's Carter product line includes a variety of inline and bypass control valves. Models 64500 and 64510 are the latest innovation in 3 and 4-inch inline air reference pressure operated control valves. They replace earlier Model 64080 3-inch and Model 64124 4-inch inline pressure control valves.

These valves utilize a direct-operating design concept with a control module added to the basic valve. This control module is mounted to the main valve body with one bolt. The new control module gives the unit finer control and eliminates exterior tubing from the valve.

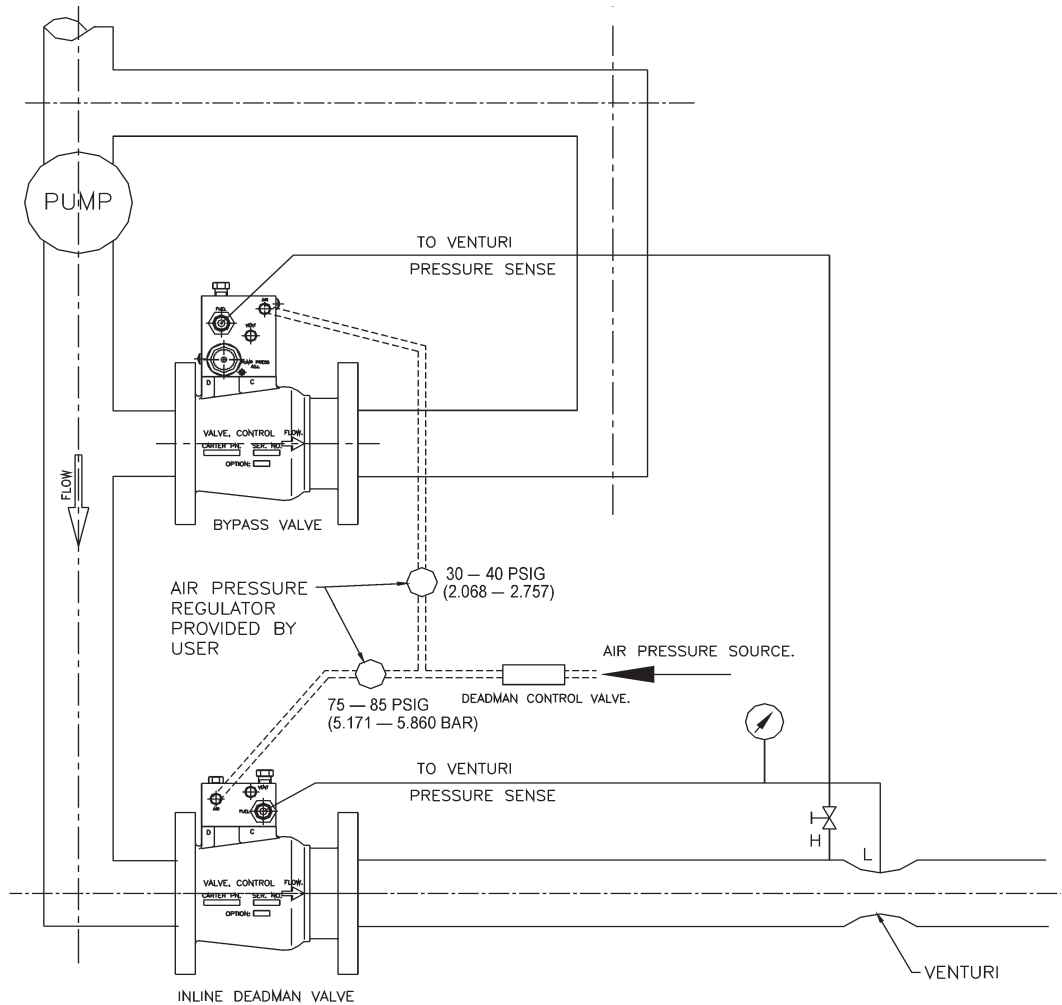
The same control module is used on both the 3 and 4-inch valves. Most of the seals in the main body of the 3 and 4-inch valves are the same, thus minimizing the spares required for any type of maintenance. The control module incorporates a unique bleeder that requires no tools to facilitate bleeding, and it has a vent to prevent fuel from entering the air system.

Features

- Standard 150 lb ANSI inlet and outlet flanges
- Victaulic adapters available
- Bleeder on module block facilitates simple bleeding of air from the valve — no venting is required once proper bleeding is accomplished
- No expensive servos to adjust
- Spare parts required for maintenance kept to a minimum due to lack of complicated servos. Many parts are common to bypass valves of same size
- Many spares common to Eaton's hydrant couplers

Air Reference Controlled Pressure Control Systems

Schematic of a typical air reference pressure controlled refueler pressure control system (below)



Note: The inline and bypass valves shall be installed in such a way that the pressure sense ports shall be located in the top position of both valves to achieve satisfactory bleeding of trapped air

Ordering Data

Both Models 64500 and 64510 have two available options to be added to the basic part number when desired.

Option Description

D	Victaulic adapter on inlet
E	Victaulic adapters on inlet and outlet

Note: It is not recommended to use Option E on a valve without additional support to keep it from turning in the piping

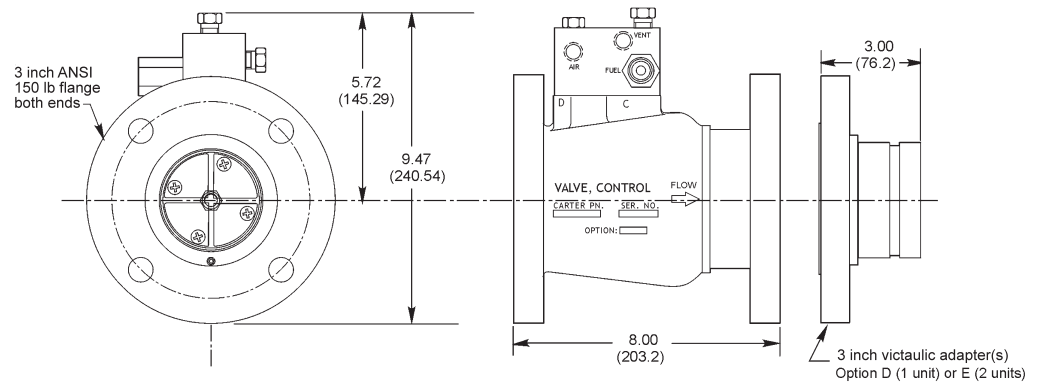
Operating Characteristics

	64500 – 3 inch	64510 – 4 inch
Working Pressure	Up to 200 psi (13.793 bar)	Up to 200 psi (13.793 bar)
Rated Flow	Up to 800 gpm (3028 l/min)	Up to 1200 gpm (4542 l/min)
Pressure Drop	4.9 psi (.338 bar) @ 600 gpm (2271 l/min)	4.3 psi (.296 bar) @ 1000 gpm (3785 l/min)
Pressure Control	25 to 75 psi (1.724 to 5.171 bar) nominal	25 to 75 psi (1.724 to 5.171 bar) nominal
Overshoot	< 5% of rated flow	< 5% of rated flow
Opening Time	5 to 10 seconds	5 to 10 seconds
Closing time	2 to 5 seconds — (see overshoot)	2 to 5 seconds — (see overshoot)
Repeatability	±3 psi (.207 bar)	±3 psi (.207 bar)
Surge Control	>120 psi (8.273 bar)	>120 psi (8.273 bar)
Operating Temperature	-40° F to +125° F (-40° C to +52° C)	-40° F to +125° F (-40° C to +52° C)

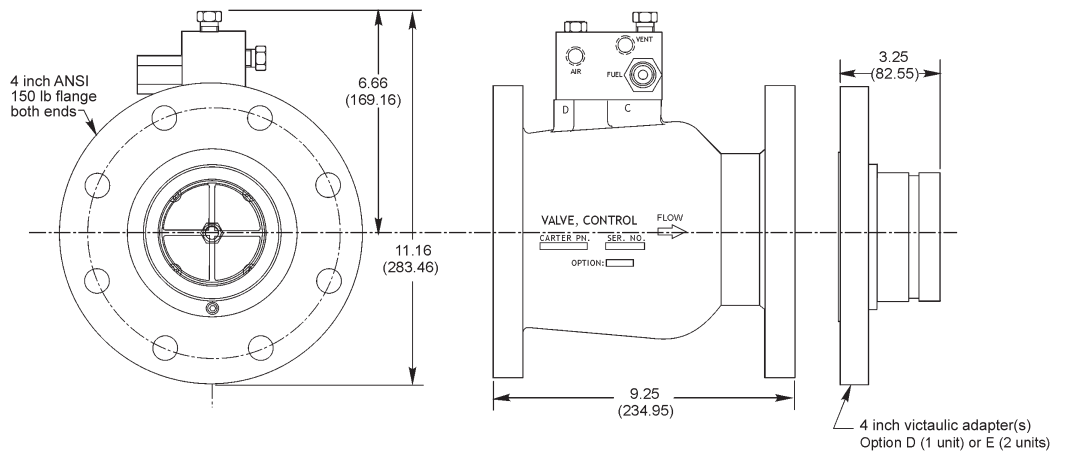
Envelope Dimensions

Dimensions shown in inches (millimeters)

Model 64500



Model 64510



Eaton
Aerospace Group
Fluid & Electrical Distribution Division
9650 Jeronimo Road
Irvine, California 92618
Phone: (949) 452 9500
Fax: (949) 452 9992
E-mail: groundfueling@eaton.com

Eaton
Aerospace Group
9650 Jeronimo Road
Irvine, California 92618
Phone: (949) 452 9500
Fax: (949) 452 9555
www.eaton.com/aerospace

Copyright © 2013 Eaton
All Rights Reserved
Form No. TF100-108D
May 2013