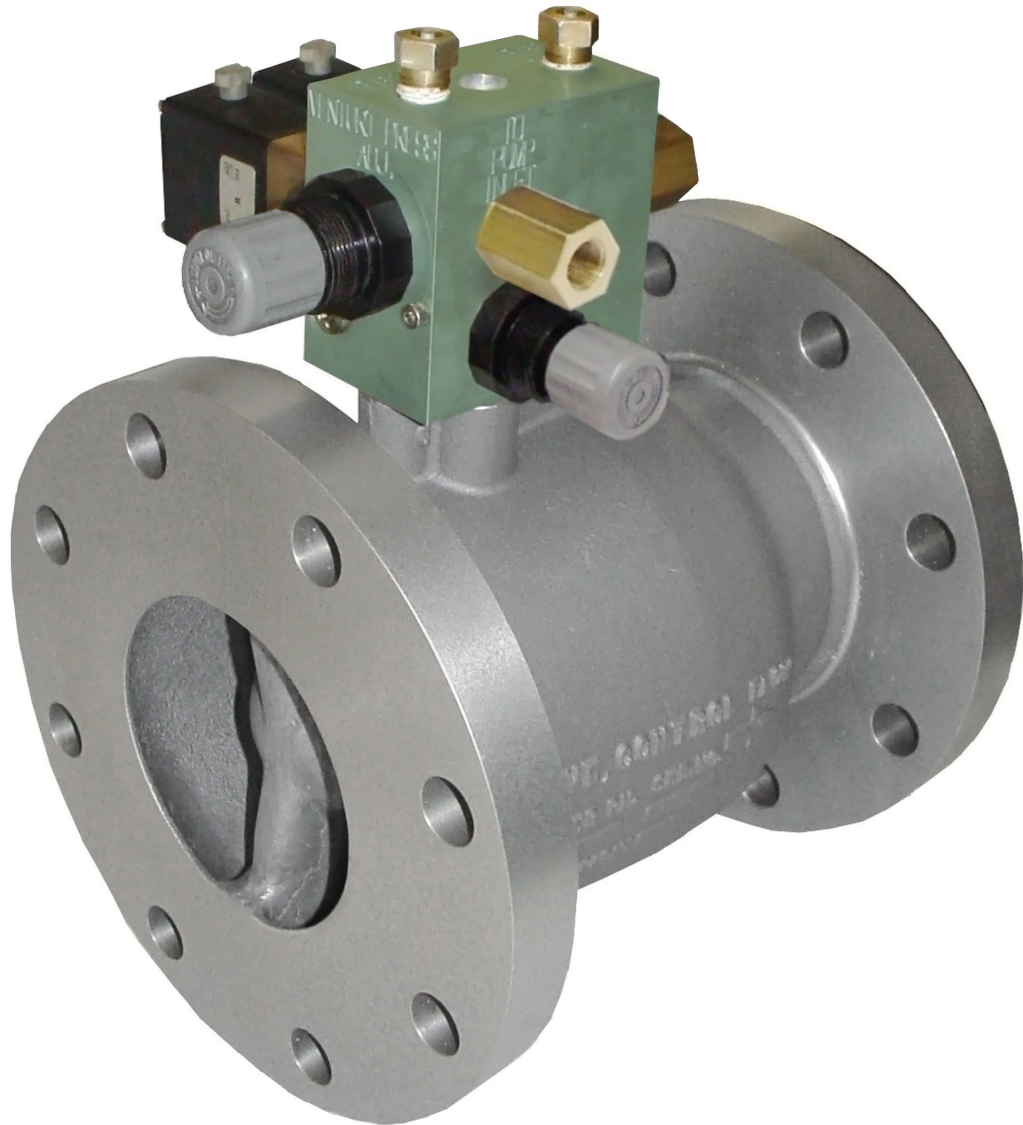


Carter®

Bypass Pressure Control Valves

Model 64503
Model 64513



EATON

Powering Business Worldwide

Design Concepts

Eaton's Carter product line includes a variety of inline and bypass control valves. Models 64503 and 64513 are the latest innovation in 3 and 4-inch bypass solenoid-operated control valves. They replace earlier Model 64133 3-inch and Model 64134 4-inch bypass valves. This type of valve is especially suited for tow cart operation or vehicles on which an air reference source is not available.

These valves utilize the direct-operating design concept with a control module added to the basic valve. The new control module gives the unit finer control and eliminates exterior tubing from the valve. This control valve is mounted to the main valve body with one bolt. Should the user decide to change an air controlled valve to electric operation, this can be accomplished by simply removing one bolt, taking off the air operated control module and replacing

it with a solenoid control module. The control module is available with either 12 or 24 VDC operation. The valves described here have been used very successfully on solar panel powered systems.

All adjustments are made on the module. Bleeding of air from the valve requires no tools and can be accomplished without loosening any of the line fittings. Fixed orifice screws in the module control opening and closing times. No venting or air pressure gauges are required with these new valves. A small integral regulator is incorporated within the module to control pressure in the system. When the solenoids are de-energized the valve goes wide open.

The same control module is used on both the 3 and 4-inch solenoid operated bypass control valves. Most of the seals in the main body of the 3 and 4-inch valves are the

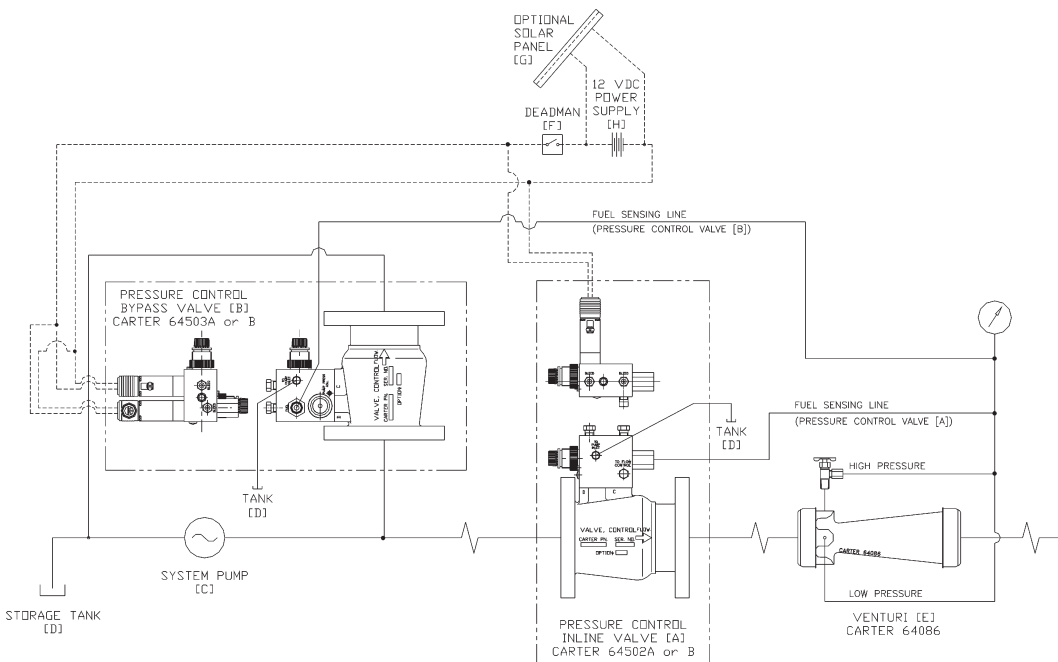
same, thus minimizing the spares required for any type of maintenance. The control module incorporates a unique bleeder that requires no tools to facilitate bleeding.

Features

- › No air reference pressure required
- › Standard 150 lb ANSI inlet and outlet flanges
- › Victaulic adapters available – use only on one end unless adequately braced
- › Bleeding and pressure control adjustment simple
- › No expensive servos to adjust
- › Spare parts kept to a minimum due to lack of complicated servos. Many parts are common to same size inline valves.
- › Many spare parts also common to Eaton's hydrant couplers

Electric/Solenoid Controlled Pressure Control Systems

Schematic of a typical electric/solenoid pressure controlled refueler system



Both Model 64503 and 64513 have five available options to be added to the basic part number when desired.

Option	Description	Option	Description
A	12 VDC operation	D	Adds one victaulic adapter
B	24 VDC operation	E	Adds two victaulic adapters
		F	Adds relief valve cap

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

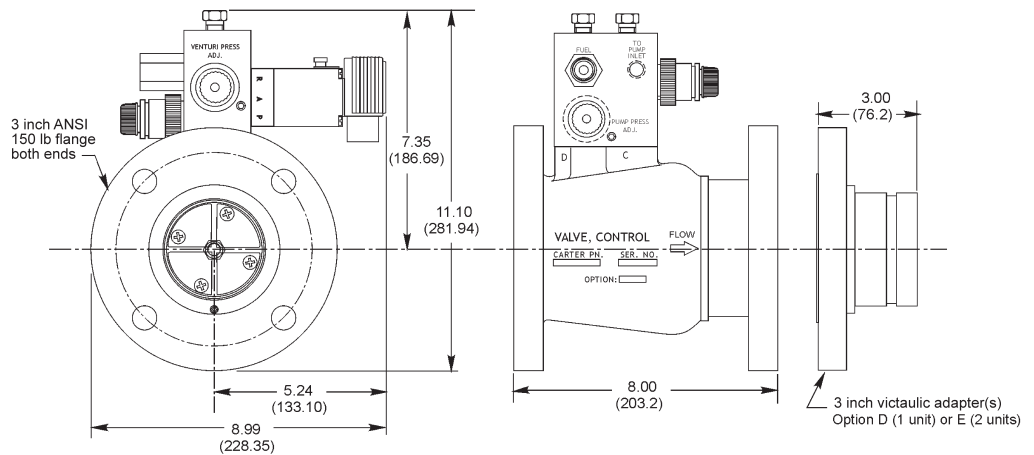
Operating Characteristics

	64503 – 3 inch	64513 – 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 @ 1000 gpm (3785 l/min)
Pressure Control	Up to 75 psi (5.171 bar) nominal	Up to 75 psi (5.171 bar) nominal
Overshoot	Valve goes wide open on deadman release	Valve goes wide open on deadman release
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	Valves opens fully on surge signal	Valves opens fully on surge signal
Operating Temperature	-40°F to +125°F (-40°C to +52°C)	-40°F to +125°F (-40°C to +52°C)

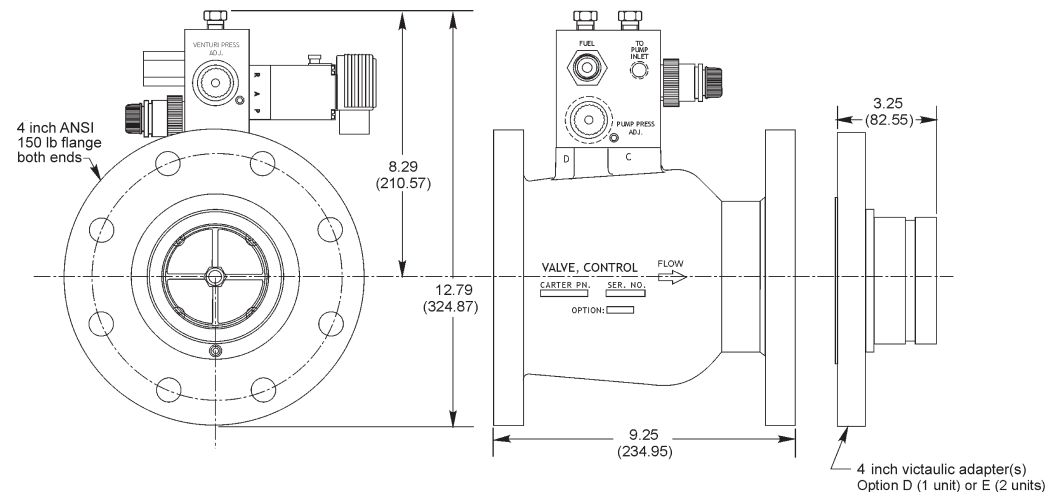
Envelope Dimensions

Dimensions shown in inches (millimeters)

Model 64503



Model 64513



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