

Design Concepts

Eaton's Carter product line includes a variety of inline and bypass control valves. Models 64502 and 64512 are the latest innovation in 3 and 4-inch inline solenoid-operated control valves. They replace earlier Model 64130 3-inch and Model 64140 4-inch inline 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 a 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 module 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 control 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.

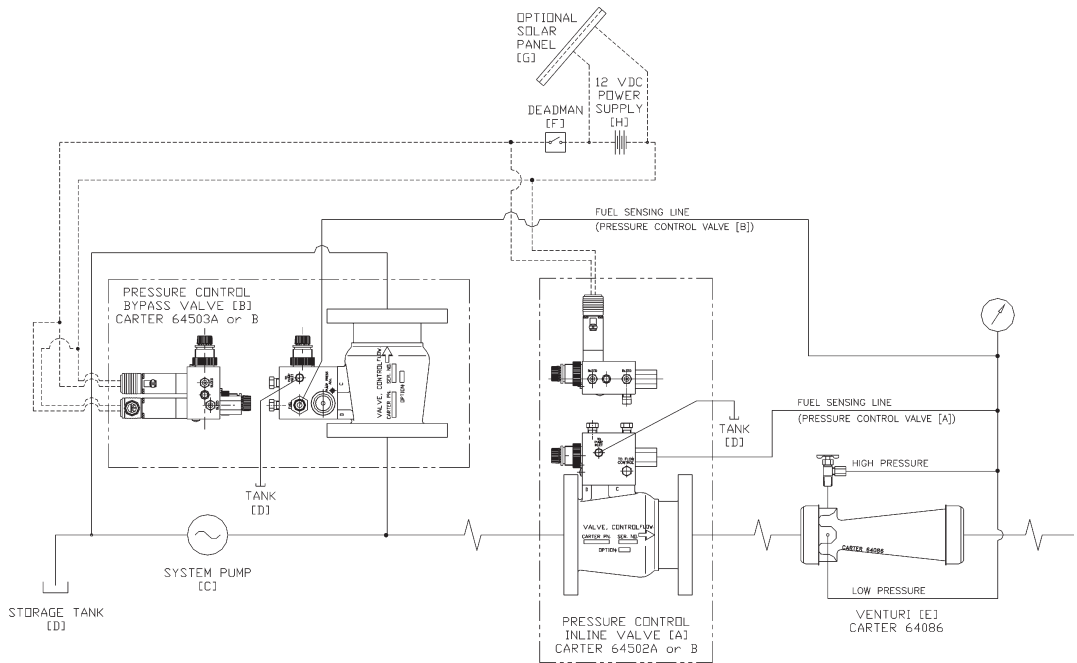
The same control module is used on both the 3 and 4-inch air operated inline control valves. Most of the seals in the main body of the 3 and 4-inch valves are the same, thus minimizing the spares required for any type of maintenance.

Features

- No air reference pressure required
- Standard 150 lb ANSI inlet and outlet flanges
- Victaulic adapters available
- Bleeding and pressure control adjustment simple — no expensive servos to adjust
- Spare parts required for maintenance kept to a minimum due to lack of complicated servos
- Many spare parts also common to Carter brand couplers

Electric/Solenoid Controlled Pressure Control Systems

Schematic of typical electric/solenoid pressure controlled refueler system



Ordering Data

Both Models 64502 and 64512 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

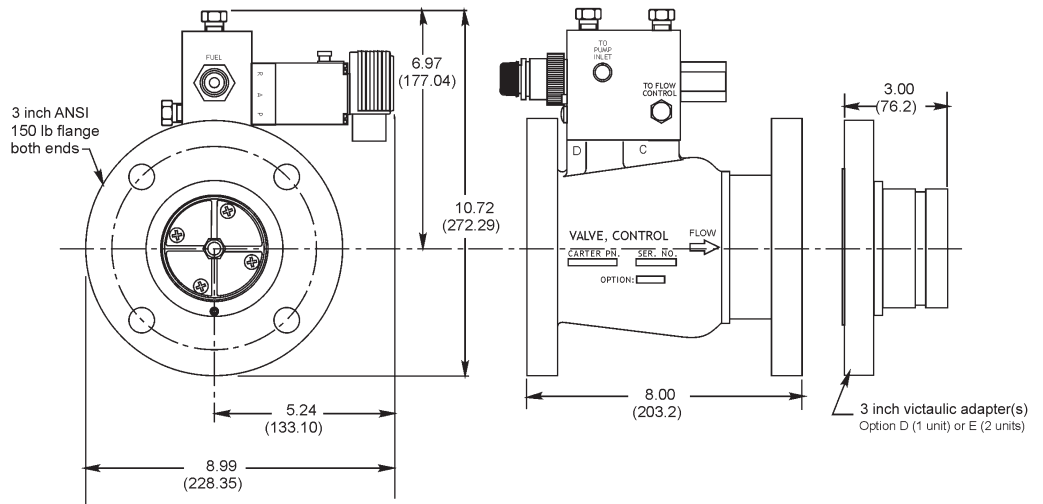
Operating Characteristics

	64502 – 3-inch	64512 – 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	Up to 75 psi (5.171 bar) nominal	Up to 75 psi (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 (8.274 bar)	>120 psi (8.274 bar)
Operating Temperature	-40°F to +125°F (-40°C to +52°C)	-40°F to +125°F (-40°C to +52°C)

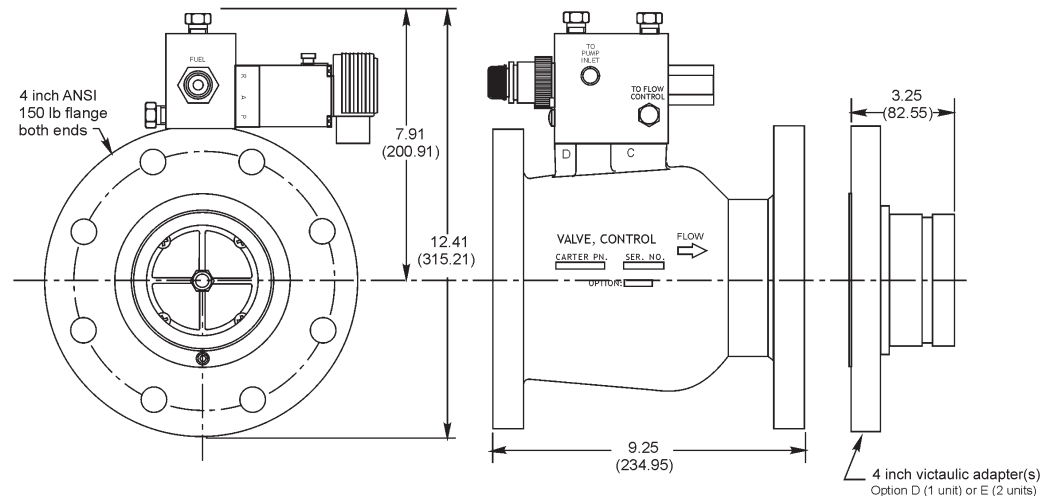
Envelope Dimensions

Dimensions shown in inches (millimeters)

Model 64502



Model 64512



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