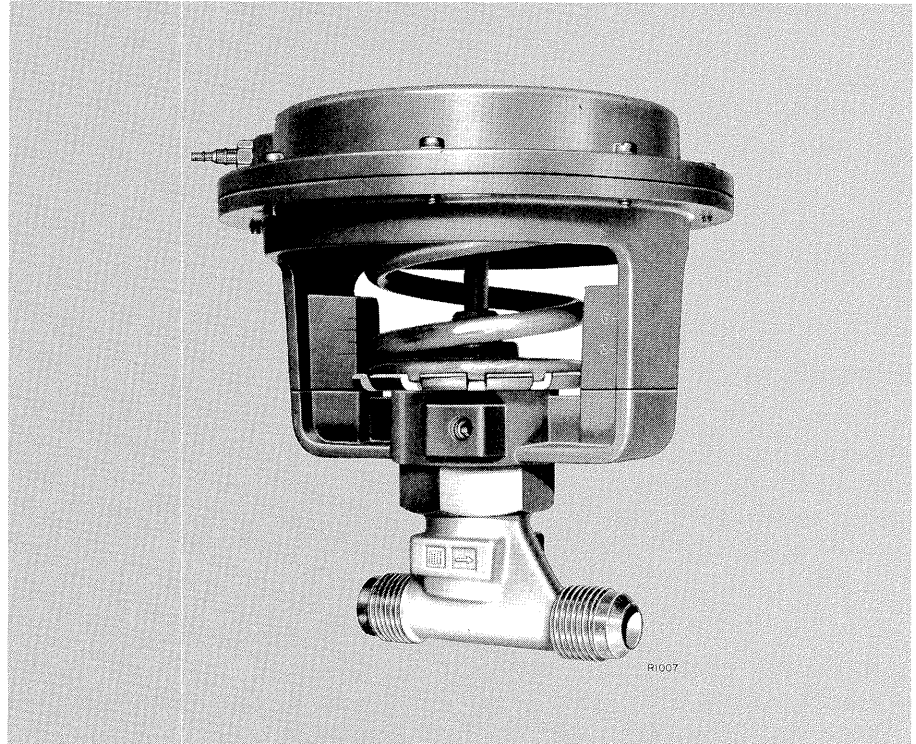


General

The VP513A is a pneumatically operated, high-pressure, single-seated, normally open valve for proportional control of unit air conditioners using hot and/or cold water.

Features

- Available in straight-through patterns.
- Small physical size and flare tube connections permit convenient installation.
- Operator can be rotated 360 degrees on the valve bonnet to align with air piping connections.
- Removable composition discs.



Specifications

BODY

TABLE 1. VP513A BODY SPECIFICATIONS

Body Pattern	Valve Size (in.)		Capacity Index (Cv)	Connections
	Nominal	OD Copper Tubing		
Straight through	1/2	5/8	2.5	45 degree SAE Flare ^a
	3/4	7/8	2.5 & 4.0	

^aBody threaded for standard flare fitting nuts. Nuts not included.

NOMINAL BODY RATING
250 lb/in² (1724 kPa).

MAXIMUM BODY TEMPERATURE
250 F (121 C).

MAXIMUM PRESSURE OF CONTROL AGENT
250 lb/in² (1724 kPa).

MAXIMUM PRESSURE DIFFERENTIAL
35 lb/in² (241 kPa).

TEMPERATURE OF CONTROL AGENT

Minimum: 35 F (2 C)
Maximum: 250 F (121 C)

SEATS

Integral brass. Stainless steel stem.

PLUG

Brass

FLOW CHARACTERISTICS

Equal Percentage.

PACKING

Rubber V-ring, spring-loaded, self-adjusting.

TRAVEL

1/2 in. (13 mm).

OPERATOR

OPERATING RANGE

1/2 in. valve: 3 to 7 and 3 to 10 lb/in²
(21 to 48 and 21 to 69 kPa).
3/4 in. valve: 3 to 10 lb/in² (21 to 69
kPa).

MAXIMUM PRESSURE DIFFERENTIAL

**FOR CLOSE-OFF WITH 13 LB/IN² (90
KPA) PRESSURE IN OPERATOR**

Cv of 2.5 and 4.0, 79 lb/in² (545 kPa).

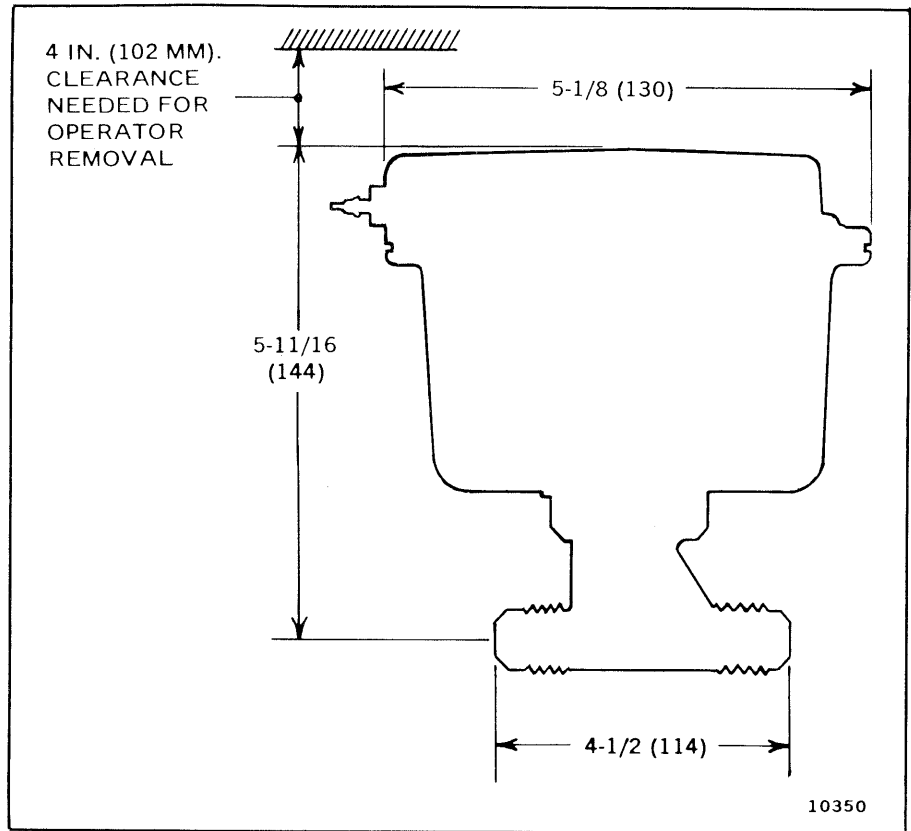


FIG. 1. VP513A APPROXIMATE DIMENSIONS IN INCHES (MILLIMETERS)

MAXIMUM SAFE AIR PRESSURE

25 lb/in² (172 kPa).

AIR CONNECTIONS

Push-on connections for 5/32 or 1/4 in.
(4 or 6 mm) plastic tubing.

DIAPHRAGM

Molded neoprene, rolling type.

VP513 DIMENSIONS

See Fig. 1.

MAXIMUM SAFE DIAPHRAGM TEMPERATURE

160 F (71 C)

WHEN ORDERING, SPECIFY:

Valve size.

Typical Operation

An increase in control air pressure decreases system supply flow.

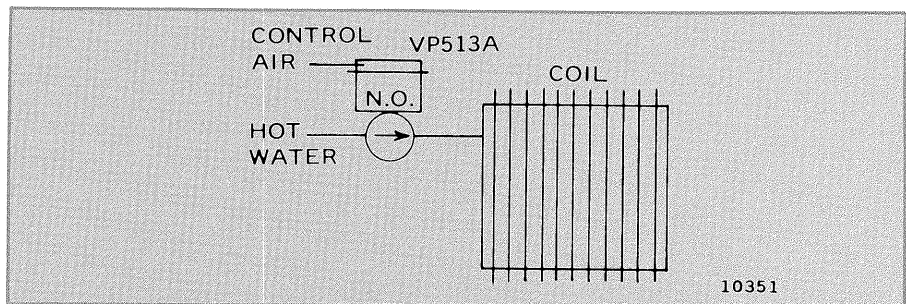


FIG. 2. VP513A TYPICAL OPERATION