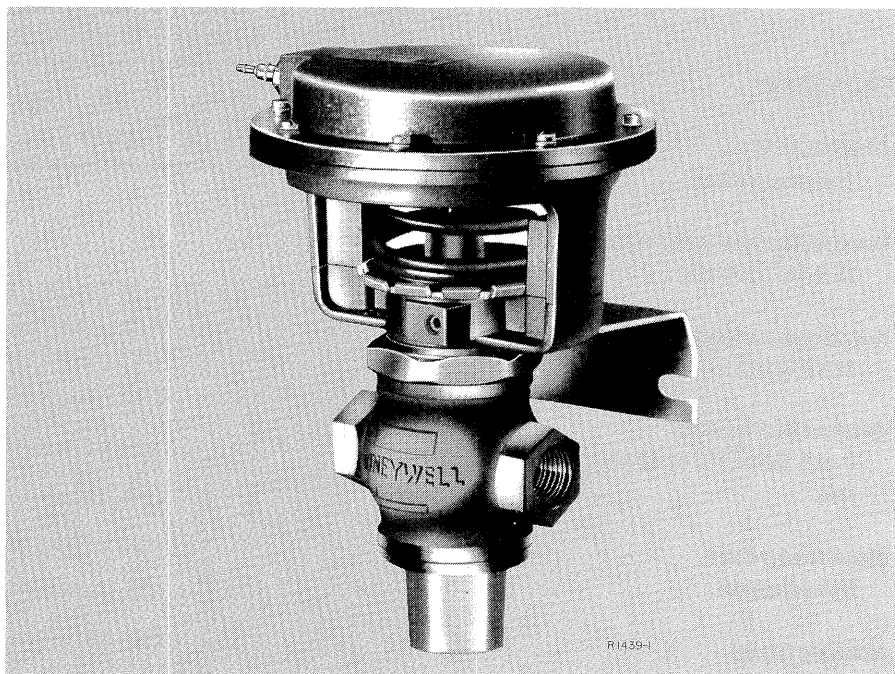


## General

The VP519C operates as an air switch in large Day-Nite or Summer-Winter switch-over systems, providing two-position action.

## Features

- Spring-loaded, self-adjusting Teflon cone packing.
- Removable composition upper and lower seats.
- Operator rotates on bonnet, permitting alignment of air connection with control air or relay piping.
- Right-angle mounting bracket permits mounting on a wall or panel.



## Specifications

### DIMENSIONS

See Fig. 1 and Table 1.

Table 1. Approximate A and B Dimensions in Inches (Millimeters).

| Valve Size | A          | B            |
|------------|------------|--------------|
| 1/2 in.    | 3-1/8 (79) | 2-3/4 (70)   |
| 3/4 in.    | 3-3/8 (86) | 2-19/32 (66) |

### BODY

#### NOMINAL BODY RATING

150 lb/in<sup>2</sup> (1034 kPa) maximum.

### CONNECTIONS

1/2 in. NPT for 1/2 in. valve.

3/4 in. NPT for 3/4 in. valve.

### DISCS

Removable composition (upper and lower). Refer to Table 2 for disc limitations.

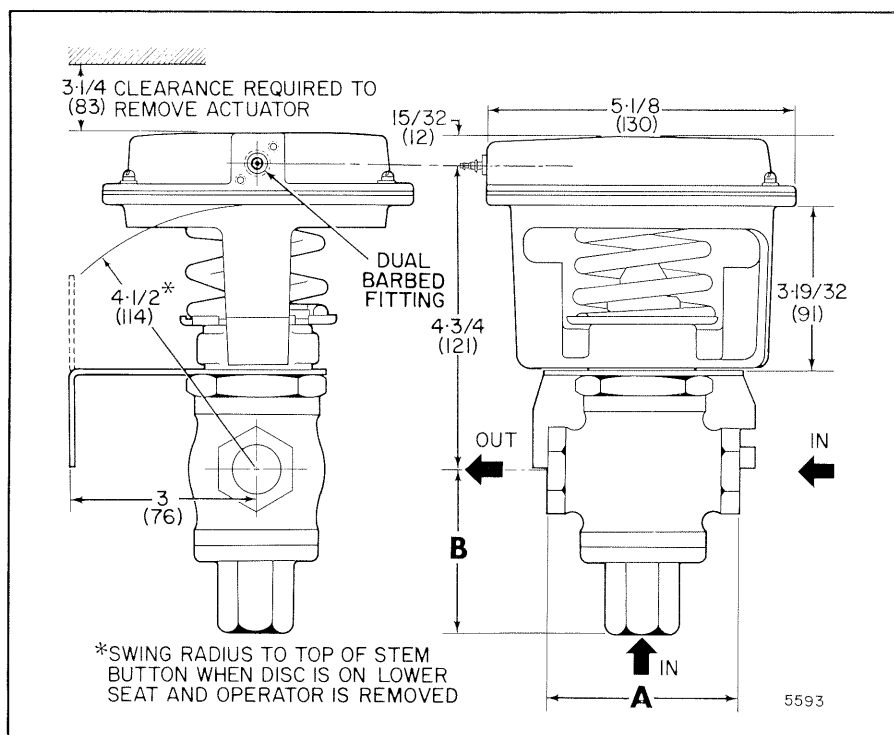


FIG. 1. VP519C APPROXIMATE DIMENSIONS IN INCHES (MILLIMETERS) SEE TABLE 1 FOR A AND B DIMENSIONS

## SEATS

Upper Seat: Integral in bronze body.

Lower Seat: Integral in lower brass inlet.

## FLOW CHARACTERISTIC

Two-position.

## OPERATOR

### DIAPHRAGM

Neoprene rubber.

### MAXIMUM SAFE AIR PRESSURE

25 lb/in<sup>2</sup> (172 kPa).

### MAXIMUM AMBIENT TEMPERATURE

160 F (71 C).

### OPERATING RANGE

6 to 9 lb/in<sup>2</sup> (41 to 62 kPa), non-adjustable.

### STARTING POINT

Non-adjustable.

### CONNECTIONS

Dual barbed connection for 5/32 in. (4 mm) or 1/4 in. (6 mm) plastic tubing.

### CLOSE-OFF RATINGS AT VARIOUS AIR PRESSURES

See Fig. 2.

### WHEN ORDERING, SPECIFY

Valve (pipe) size.

Table 2. Body Specifications.

| Valve Size | Cv  | Travel in. (mm) | Packing Limitations  |            |                                                 | Disc Limitations      |            |                                                   |
|------------|-----|-----------------|----------------------|------------|-------------------------------------------------|-----------------------|------------|---------------------------------------------------|
|            |     |                 | Temp Limits of Agent |            | Press. Limits of Agent lb/in <sup>2</sup> (kPa) | Temp. Limits of Agent |            | Max. Press. Differential lb/in <sup>2</sup> (kPa) |
|            |     |                 | Max. F (C)           | Min. F (C) |                                                 | Max. F (C)            | Min. F (C) |                                                   |
| 1/2 in.    | 5.5 | 1/4 (6)         | 337 (169)            | 40 (4)     | 150 (1034)                                      | 115 (46)              | 35 (2)     | 75 (517)                                          |
| 3/4 in.    | 7.5 | 9/32 (7)        |                      |            |                                                 |                       |            |                                                   |

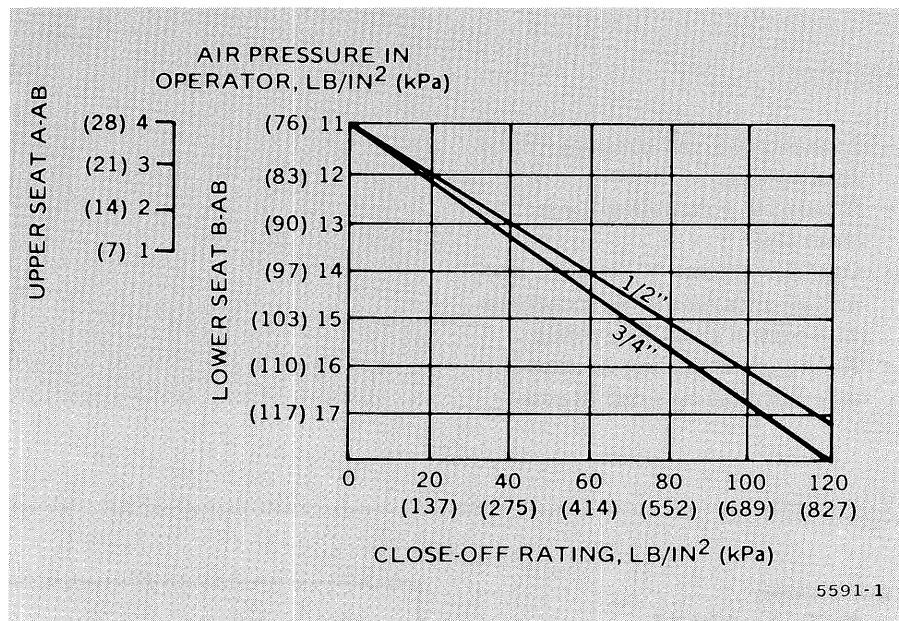


FIG. 2. MAXIMUM DIFFERENCE IN PRESSURE BETWEEN OUTLET AND INLET

## Typical Operation

With 0 lb/in<sup>2</sup> (0 kPa) pilot pressure, Port AB is open to Port B and closed to Port A, furnishing 18 lb/in<sup>2</sup> (124 kPa) supply pressure to the system. With 13 lb/in<sup>2</sup> (90 kPa) pilot pressure, Port AB is open to Port A and closed to Port B, furnishing 13 lb/in<sup>2</sup> (90 kPa) supply pressure to the system (Fig. 3).

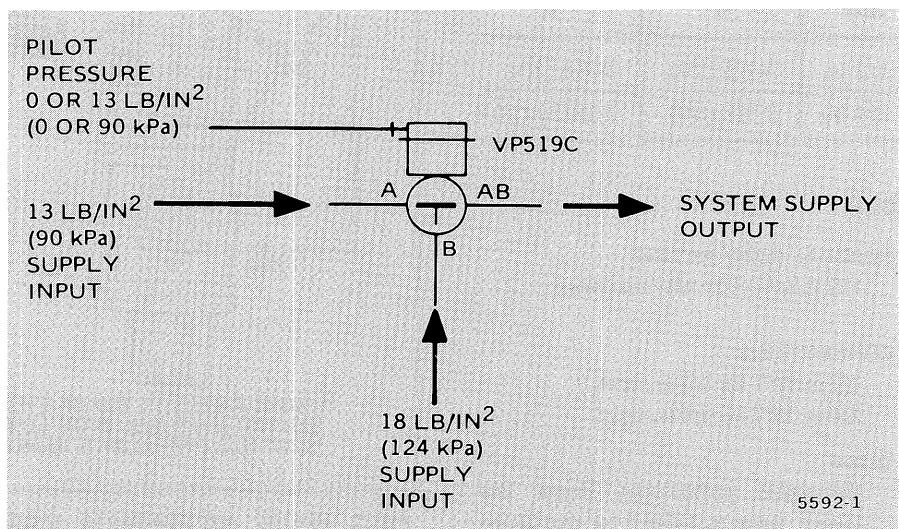


FIG. 3. VP519C TYPICAL OPERATION