

DESCRIPTION

The R-K DAV series Divertor Air Valve features a 3-way valve with multiple use capabilities. It can be used to direct the flow, combine the flow or be used as an exhaust valve. When installed in the system, flow will be directed from port "C" to "N/C". When air pressure is applied, flow will be from "C" to "N/O". When used to combine the flow, it will be from "N/C" to "C"; and when air is applied, flow will be from "N/O" to "C". When used as an exhaust valve, flow will be from "N/O" to "N/O" with air applied and from "C" to "N/C" when pressure is relieved. Two valves used together ("N/C" to "N/C") can be used as a 4-way valve.

This patented valve is designed so there is no metal contact with the fluid and is available in two styles: Type 1 uses air to open and a spring to close; Type 2 uses air to open and air to close. Other features include direct acting full flow and top entry for easy maintenance.

R-K DAV SERIES DIVERTOR AIR VALVE



KEY FEATURES

- Versatile 3-way divertor air valve engineered for multiple flow control applications
- Pneumatic control to open and spring to close
- No metal contact with fluid
- Maintenance-Friendly: Top-entry construction simplifies servicing.
- Orientation-Free: Operates reliably in any mounting position with minimal water hammer.
- Direct acting full flow with top entry for easy maintenance and minimum water hammer. The standard valve is normally closed (apply air to open). Normally open valve is also available upon request.

VALVE BODY MATERIALS:

- PVC Type 1, Grade 1
- Polypropylene
- PVDF
- Teflon

For type 1 Spring: Stainless steel, fully isolated from fluid path.

Seal EPDM
VITON
KALREZ

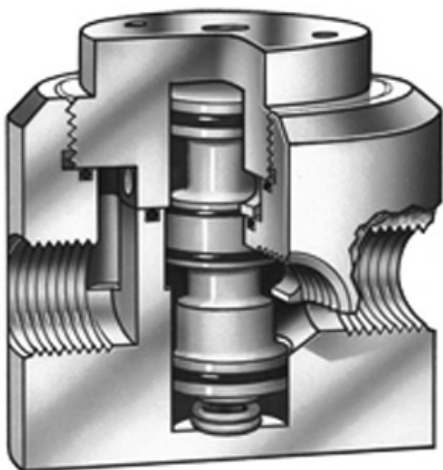
SIZES & PORTING

Valve Sizes: ¼", ½", ¾", 1.0", 1.5", 2.0"

Port Types:

¼" to 1" Valve FNPT
1.5" to 2" Valve MPT
All valves are fully ported

Mounting: (4) ¼"-20 tapped holes for standard machined valve body.
(¼" to 1.00")



PATENT NO: 4,267,861

PRESSURE & TEMPERATURE RATINGS:

Upstream Pressure: Vacuum to 150 PSIG
Air Actuating Pressure: 40 to 80 PSIG

Temperature Range

- PVC: 0°F to 140°F
- POLYPRO: 0°F to 180°F
- PVDF: 0°F to 280°F
- Teflon: 0°F to 340°F

Flow Direction Control

- Without air: Flow from port C > N/O
- With air: Flow from port C > N/C

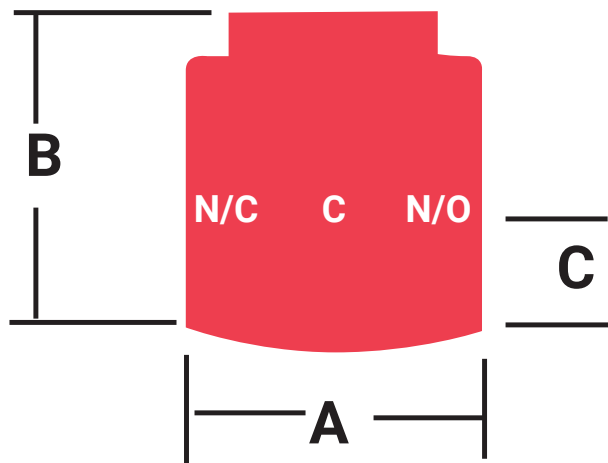
Flow Combining:

- Without air: Flow from N/O > C
- With air: Flow from N/C > C

Exhaust Valve:

- With air: Flow from N/C > C
- Without air: Flow from C > N/O

4-Way Configuration: Two DAV valves installed together



The chart below will specify R - K standard valves regarding valve size, valve material, and seal material.
 For special orders, please consult the factory for pricing and delivery information.

DAV - X X X - X X

VALVE SIZE

- 25 = 1/4"
- 50 = 1/2"
- 75 = 3/4"
- 100 = 1.0"
- 150 = 1.5"
- 200 = 2.0"

MATERIAL

- 1 = PVC
- 2 = POLYPRO
- 3 = PVDF
- 4 = TEFLON
- 5 = OTHER (Please specify)

SEALS

- E = EPDM
- V = VITON
- K = KALREZ
- O = OTHER (Please specify)

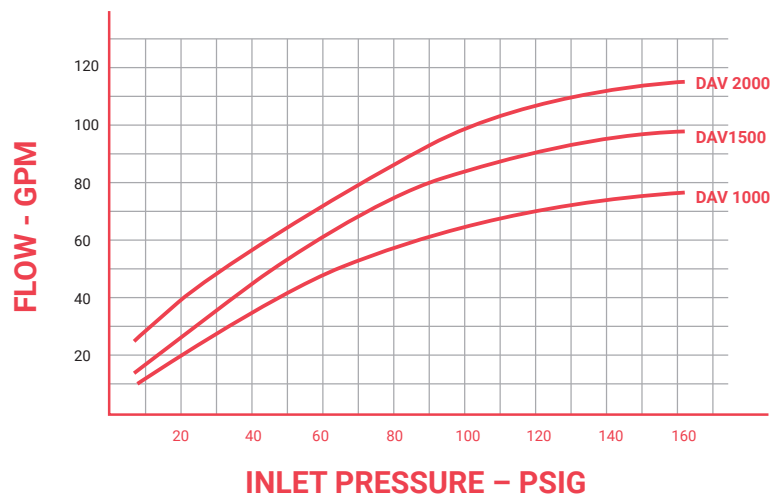
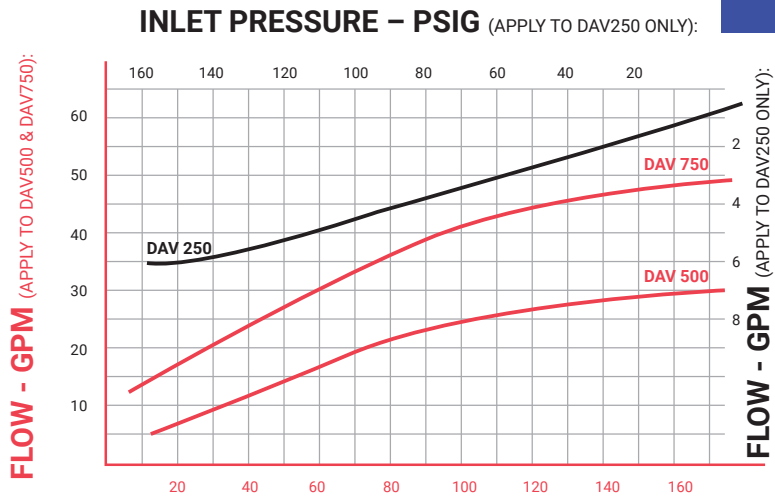
VALVE TYPE

- 1 = AIR TO OPEN/ SPRING CLOSE
- 2 = AIR TO OPEN/ AIR CLOSE

ENGINEERING & PERFORMANCE DATA

NOTES

- Test data was performed with 68°F water, and 160 PSIG maximum pressure.
- These performance curves will be changed with higher viscosity liquid and/or higher temperature.
- Consult your local sales rep or manufacturer directly for custom products or special applications.



DIMENSIONAL DATA

DIMENSIONS IN INCHES

| Valve size | Ports | A | B | C | Cv |
|------------|-------|-----|-----|-----|-------|
| 1/4" | FNPT | 2 | 2 | 0.7 | 0.58 |
| 1/2" | FNPT | 3 | 3 | 1.2 | 2.84 |
| 3/4" | FNPT | 3.5 | 3.5 | 1.3 | 4.14 |
| 1.0" | FNPT | 4 | 4.4 | 1.6 | 5.86 |
| 1.5" | MPT | 5 | 6.2 | 2.4 | 16.7* |
| 2.0" | MPT | 6 | 6.8 | 2.8 | 22.3* |

(*) Cv value @ 150 GPM

