

## PRESSURE RELIEF, SUSTAINING, BACK PRESSURE CONTROL VALVE

MODEL NO. FH47-03-CV

### DESIGN DESCRIPTION & APPLICATION

FH47-03-CV Pressure Relief, Sustaining or Back Pressure Control Valve is designed to allow flow when upstream line pressure is above the adjustable setpoint of the control pilot, and throttle toward closed when upstream line pressure falls below the adjustable setpoint.

During the installation, when the valve is installed "off the main line" on the branch of a tee, it serves as a Pressure Relief Control Valve. It is normally closed, and quickly opens when upstream line pressure exceeds the pilot setting, relieving excess line pressure.

However, when valve installed "in line" connecting with two distribution areas, the valve then acts as a Pressure Sustaining Control Valve. When line pressure in the upstream area falls below the pilot setpoint, the valve modulates toward a closed position, sustaining pressure in the upstream area.

If the valve is installed "in line" on the discharge of a pump system, the valve will act as Back Pressure Control Valve. When pump system discharge pressure falls below the pilot setpoint, the valve modulates toward a closed position, increasing backpressure against the pump system.

### SPECIFICATION

Size: DN50 ~ DN300 to flange

Flange: 10K, 16K, PN16, 150LB

Working Temperature:  
0°C ~ 100°C, Water

*Any size over DN350 can be made to order.*

### PILOT SPECIFICATION

Pressure Adjustment Range:  
0.1 ~ 4 kgf/cm<sup>2</sup>, 3 ~ 9 kgf/cm<sup>2</sup>,  
7 ~ 16 kgf/cm<sup>2</sup>

Working Temperature:  
0°C ~ 100°C, Water

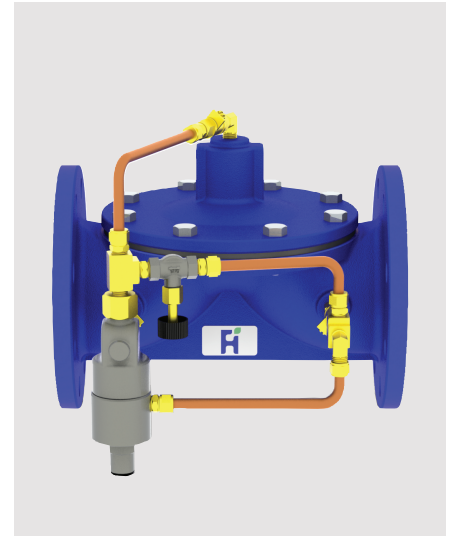
Material: Brass / Stainless Steel

### PARTS & MATERIALS

| No | Parts                                      | Materials                                           |
|----|--------------------------------------------|-----------------------------------------------------|
| 1  | Strainer                                   | Body<br>Iron Casting / Stainless Steel              |
| 2  | Ball Valve                                 |                                                     |
| 3  | Needle Valve / Ball Valve                  | Accessory<br>Brass / Stainless Steel                |
| 4  | Ball Valve                                 |                                                     |
| 5  | Ball Valve                                 | Fastener & Spring<br>Carbon Steel / Stainless Steel |
| 6  | Pilot of Pressure Relief, Sustaining, Back |                                                     |
| 7  | Ball Valve                                 | Diaphragm<br>NBR / EPDM                             |
| 8  | Basic Valve Body                           |                                                     |

### DIMENSION

| Valve Size | L (mm) | H (mm) | Weight (kg) |
|------------|--------|--------|-------------|
| 50         | 200    | 87     | 7           |
| 65         | 220    | 109    | 9           |
| 80         | 285    | 115    | 16          |
| 100        | 307    | 137    | 18          |
| 125        | 370    | 142    | 37          |
| 150        | 390    | 164    | 48          |
| 200        | 500    | 183    | 83          |
| 250        | 605    | 244    | 120         |
| 300        | 650    | 258    | 140         |



- Responsive, accurate pressure control
- Reliable and excellent sealing
- Slow shut off design and surge prevention
- Completely automatic operation

