



# PRESSURE SUSTAINING/ BACK PRESSURE VALVE

## DIRECT ACTING STAINLESS STEEL



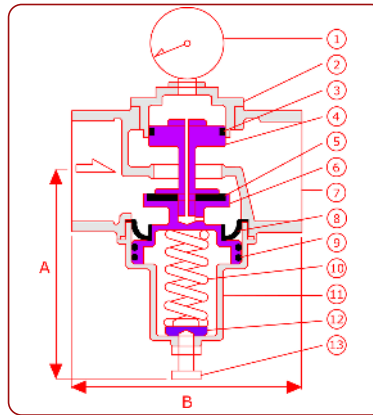
# P09

### DESCRIPTION

Direct Acting Pressure Sustaining/Back Pressure Valve. 316 Stainless Steel body, suitable for air, pure water, acids, alkaline and steam up to 185°C. Adjustment is via stem (13) which alters the inlet pressure by balancing between back pressure chamber and spring. The valve can also release over-pressures in the system. The pressure gauge accurately indicates the inlet pressure.

Pressure Adjusting Range:

- 1 - 5 Bar
- 4 - 10 Bar
- 8 - 13 Bar



### SPECIFICATIONS & DIMENSIONS

| Model: Screwed Port |   |     |     | Orifice mm | Nominal Pressure | KV Flow Factor L/Min. | Weight Kg | Dimensions mm |     |     |
|---------------------|---|-----|-----|------------|------------------|-----------------------|-----------|---------------|-----|-----|
| A                   | B | C   | A   |            |                  |                       |           | B             |     |     |
| P09                 | I | 15  | F/G | 1/2"       | 15               | 25                    | 34        | 0.8           | 80  | 70  |
| P09                 | I | 20  | H/I | 3/4"       | 20               | 25                    | 129       | 0.9           | 105 | 85  |
| P09                 | I | 25  | L/M | 1"         | 25               | 25                    | 157       | 1             | 105 | 92  |
| P09                 | I | 40  | O/V | 1 1/2"     | 40               | 25                    | 200       | 2.2           | 130 | 115 |
| P09                 | I | 50  | P/W | 2"         | 50               | 25                    | 357       | 3.1           | 130 | 120 |
| Model: PN16 Flanged |   |     |     |            |                  |                       |           |               |     |     |
| P09                 | I | 15  | FL  | DN15       | 15               | 25                    | 34        | 2             | 80  | 150 |
| P09                 | I | 20  | FL  | DN20       | 20               | 25                    | 129       | 2.8           | 105 | 150 |
| P09                 | I | 25  | FL  | DN25       | 25               | 25                    | 157       | 3.5           | 105 | 150 |
| P09                 | I | 40  | FL  | DN40       | 40               | 25                    | 200       | 5.9           | 130 | 190 |
| P09                 | I | 50  | FL  | DN50       | 50               | 25                    | 357       | 6.5           | 130 | 190 |
| P09                 | I | 65  | FL  | DN65       | 65               | 25                    | 1072      | 11.5          | 185 | 210 |
| P09                 | I | 80  | FL  | DN80       | 80               | 25                    | 1144      | 12            | 185 | 225 |
| P09                 | I | 100 | FL  | DN100      | 100              | 25                    | 1716      | 19            | 230 | 250 |
| P09                 | I | 150 | FL  | DN150      | 150              | 25                    | 3575      | 45            | 290 | 310 |

| No. | Description    | Material              |
|-----|----------------|-----------------------|
| 1   | Gauge          | Stainless Steel       |
| 2   | Cover          | 316 Stainless Steel   |
| 3   | O ring         | VITON / TEFLON / EPDM |
| 4   | Piston         | 316 Stainless Steel   |
| 5   | Sealing Spacer | VITON / TEFLON / EPDM |
| 6   | Shaft          | 316 Stainless Steel   |
| 7   | Main Body      | 316 Stainless Steel   |
| 8   | Diaphragm      | VITON                 |
| 9   | O ring         | VITON / TEFLON / EPDM |
| 10  | Spring         | Spring Steel          |
| 11  | Spring Cover   | 316 Stainless Steel   |
| 12  | Washer         | Brass                 |
| 13  | Adjusting Stem | 316 Stainless Steel   |

### ORDER CODES

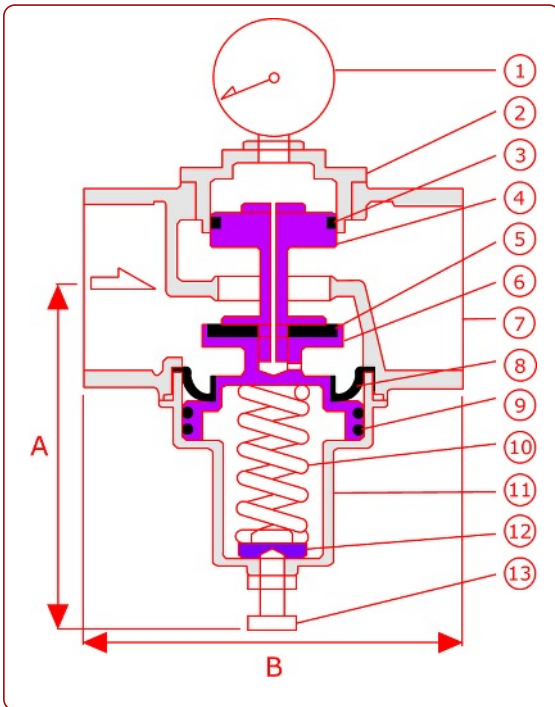
| A | Body Material       | B | Ported Body | PN16. (PN10/PN25 ANSI 150/300 upon request) |            |     | C           | Seals | D           | Options |                           |    |                |
|---|---------------------|---|-------------|---|------------|-----|-------------|-------|-------------|---------|---------------------------|----|----------------|
| I | 316 Stainless Steel | F | 1/2" BSP    | G   | 1/2" NPT   | 12A | 1/2" PN16   | 25A   | 2 1/2" PN16 | 1       | VITON (-10°C to + 90°C)   | SG | Oxygen Service |
|   |                     | H | 3/4" BSP    | I   | 3/4" NPT   | 34A | 3/4" PN16   | 3A    | 3" PN16     | 10      | TEFLON (-15°C to + 185°C) |    |                |
|   |                     | L | 1" BSP      | M   | 1" NPT     | 1A  | 1" PN16     | 4A    | 4" PN16     |         |                           |    |                |
|   |                     | O | 1 1/2" BSP  | V   | 1 1/2" NPT | 15A | 1 1/2" PN16 | 6A    | 6" PN16     |         |                           |    |                |
|   |                     | P | 2" BSP      | W   | 2" NPT     | 2A  | 2" PN16     |       |             |         |                           |    |                |

# PRESSURE SUSTAINING/ BACK PRESSURE VALVE

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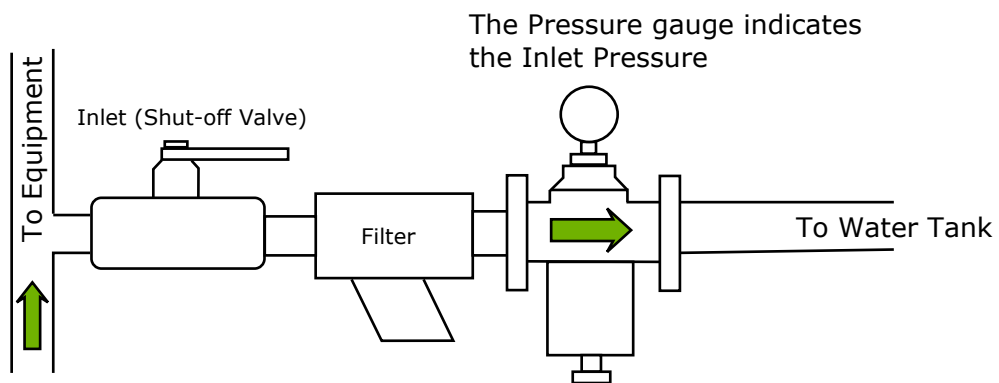
# P09 Installation

### DESCRIPTION



| No. | Description    | Material              |
|-----|----------------|-----------------------|
| 1   | Gauge          | Stainless Steel       |
| 2   | Cover          | 316 Stainless Steel   |
| 3   | O ring         | VITON / TEFLON / EPDM |
| 4   | Piston         | 316 Stainless Steel   |
| 5   | Sealing Spacer | VITON / TEFLON / EPDM |
| 6   | Shaft          | 316 Stainless Steel   |
| 7   | Main Body      | 316 Stainless Steel   |
| 8   | Diaphragm      | VITON                 |
| 9   | O ring         | VITON / TEFLON / EPDM |
| 10  | Spring         | Spring Steel          |
| 11  | Spring Cover   | 316 Stainless Steel   |
| 12  | Washer         | Brass                 |
| 13  | Adjusting Stem | 316 Stainless Steel   |

### FLOW DIAGRAM



### INSTALLATION PROCEDURE

1. Clean & remove all the impurities inside the pipes. We recommend the installation of an inline filter.
2. Make sure the flow direction is correct.
3. The setting pressure gets higher by turning the adjusting stem clockwise.
4. The pressure gauge indicates the inlet pressure.

#### Adjusting The Setting Pressure:

1. Turn the adjusting stem to the lowest pressure.
2. Adjusting the pressure to the required setting by turning stem (13) clockwise.  
Tighten the nut to fix the adjusting stem.