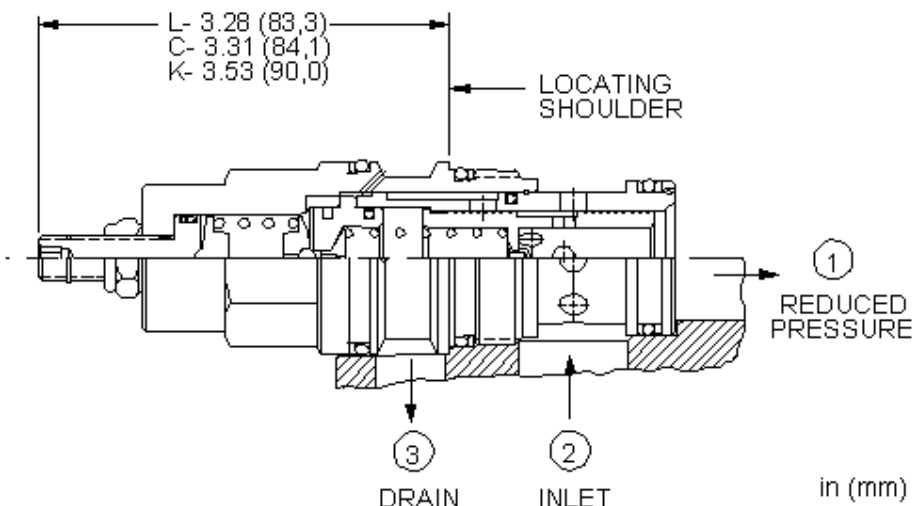


## CONFIGURATION

|                                |                  |                                                              |
|--------------------------------|------------------|--------------------------------------------------------------|
| <b>L</b>                       | Control          | Standard Screw Adjustment                                    |
| <b>Q</b>                       | Adjustment Range | 60 - 400 psi (4 - 28 bar), 200 psi (14 bar) Standard Setting |
| <b>V</b>                       | Seal Material    | Viton                                                        |
| <b>(none)</b> Material/Coating |                  |                                                              |



Pilot-operated, pressure reducing valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, allowing circuits with multiple pressure requirements to be operated using a single pump.

## TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

|                                                        |                                    |
|--------------------------------------------------------|------------------------------------|
| Cavity                                                 | T-17A                              |
| Series                                                 | 3                                  |
| Capacity                                               | 40 gpm                             |
| Maximum Operating Pressure                             | 5000 psi                           |
| Factory Pressure Settings Established at               | blocked control port (dead headed) |
| Control Pilot Flow                                     | 15 - 20 in <sup>3</sup> /min.      |
| Adjustment - No. of CW Turns from Min. to Max. setting | 5                                  |
| Valve Hex Size                                         | 1 1/4 in.                          |
| Valve Installation Torque                              | 150 - 160 lbf ft                   |
| Adjustment Screw Internal Hex Size                     | 5/32 in.                           |
| Locknut Hex Size                                       | 9/16 in.                           |
| Locknut Torque                                         | 80 - 90 lbf in.                    |
| Seal kit - Cartridge                                   | Buna: 990017007                    |
| Seal kit - Cartridge                                   | EPDM: 990017014                    |
| Seal kit - Cartridge                                   | Polyurethane: 990017002            |
| Seal kit - Cartridge                                   | Viton: 990017006                   |
| Model Weight                                           | 1.25 lb.                           |

## NOTES

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) N and Q are 2000 psi (140 bar) W is 5000 psi (350 bar) inlet pressure

CONFIGURATION OPTIONS

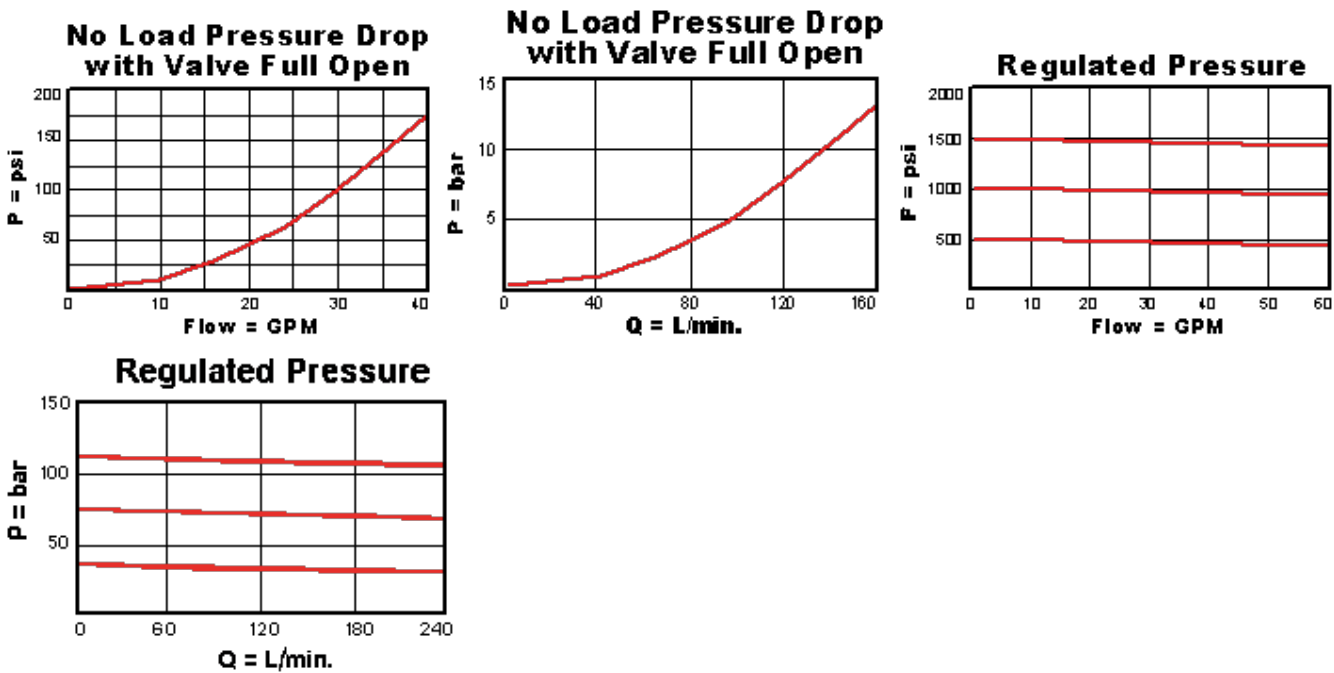
Model Code Example: PBHBLQV

| CONTROL | (L)                            | ADJUSTMENT RANGE | (Q)                                                                | SEAL MATERIAL | (V)    | MATERIAL/COATING                |
|---------|--------------------------------|------------------|--------------------------------------------------------------------|---------------|--------|---------------------------------|
| L       | Standard Screw Adjustment      | Q                | 60 - 400 psi (4 - 28 bar), 200 psi (14 bar) Standard Setting       | V             | Viton  | Standard Material/Coating       |
| C       | Tamper Resistant - Factory Set | A                | 100 - 3000 psi (7 - 210 bar), 200 psi (14 bar) Standard Setting    | N             | Buna-N | /AP Stainless Steel, Passivated |
| K       | Handknob                       | W                | 150 - 4500 psi (10,5 - 315 bar), 200 psi (14 bar) Standard Setting | E             | EPDM   | /LH Mild Steel, Zinc-Nickel     |
| W       | Hex Wrench Adjustment          | B                | 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting   |               |        |                                 |
| Y       | Tri-Grip Handknob              | N                | 60 - 800 psi (4 - 55 bar), 200 psi (14 bar) Standard Setting       |               |        |                                 |

TECHNICAL FEATURES

- Full reverse flow from reduced pressure (port 1) to inlet (port 2) may cause the main spool to close. If reverse free flow is required in the circuit, consider adding a separate check valve to the circuit.
- If pilot flow consumption is critical, consider using direct acting reducing/relieving valves.
- Recommended maximum inlet pressure is determined by the adjustment range. Ranges D, E, N, and Q are tested with a 2000 psi (140 bar) maximum differential between inlet and reduced pressure. Ranges A, B, and H are tested with a 3000 psi (210 bar) maximum differential between inlet and reduced pressure. Ranges C and W are tested with 5000 psi (350 bar) of inlet pressure.
- Pilot operated valves exhibit exceptionally flat pressure/flow characteristics, are very stable and have low hysteresis.
- Pressure at port 3 is directly additive to the valve setting at a 1:1 ratio and should not exceed 5000 psi (350 bar).
- Pilot operated reducing, reducing/relieving valves by nature are not fast acting valves. For superior dynamic response, consider direct acting valves.
- W and Y controls (where applicable) can be specified with or without a special setting. When no special setting is specified, the valve is adjustable throughout its full range using the W or Y control. When a special setting is specified, this setting represents the maximum setting of the valve.
- Cartridges configured with EPDM seals are for use in systems with phosphate ester fluids. Exposure to petroleum based fluids, greases and lubricants will damage the seals.
- All three-port pressure reducing and reducing/relieving cartridges are physically interchangeable (i.e. same flow path, same cavity for a given frame size). When considering mounting configurations, it is sometimes recommended that a full capacity return line (port 3) be used with reducing/relieving cartridges.
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

PERFORMANCE CURVES



RELATED MODELS

- [PBHB8](#) Pilot-operated, pressure reducing main stage with integral T-8A control cavity