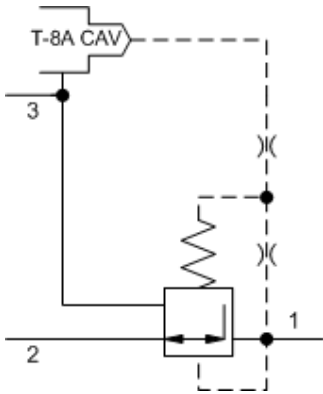
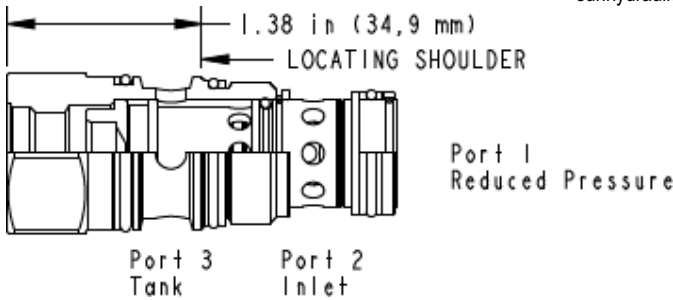




This valve is a 3-way, normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the tank (port 3).

CONFIGURATION

|   |                          |                 |
|---|--------------------------|-----------------|
| W | Minimum Control Pressure | 100 psi (7 bar) |
| N | Seal Material            | Buna-N          |

TECHNICAL DATA

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

|                                         |                               |
|-----------------------------------------|-------------------------------|
| Cavity                                  | T-2A                          |
| Series                                  | 2                             |
| Capacity                                | 20 gpm                        |
| Maximum Operating Pressure              | 5000 psi                      |
| Control Pilot Flow                      | 10 - 15 in <sup>3</sup> /min. |
| Pilot Control Cavity                    | T-8A                          |
| Pilot Control Valve Installation Torque | 20 - 25 lbf ft                |
| Pilot Control Valve Hex Size            | 7/8 in.                       |
| Valve Hex Size                          | 1 1/8 in.                     |
| Valve Installation Torque               | 45 - 50 lbf ft                |
| Seal kit - Cartridge                    | Buna: 990202007               |
| Seal kit - Cartridge                    | Polyurethane: 990002002       |
| Seal kit - Cartridge                    | Viton: 990202006              |
| Model Weight                            | 0.41 lb.                      |

CONFIGURATION OPTIONS

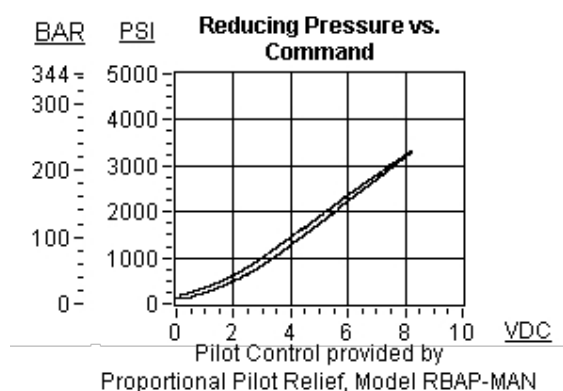
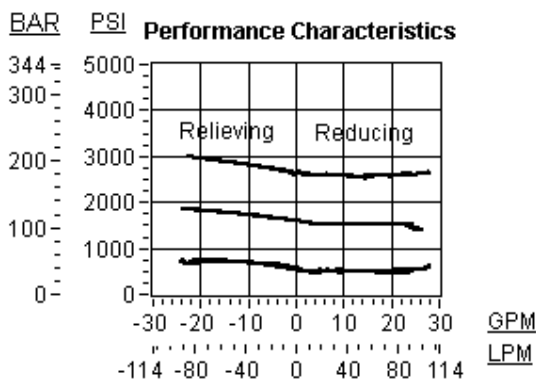
Model Code Example: PPFF8WN

| MINIMUM CONTROL PRESSURE (W) | SEAL MATERIAL (N) |
|------------------------------|-------------------|
| W 100 psi (7 bar)            | N Buna-N          |
| D 25 psi (1,7 bar)           | V Viton           |

## TECHNICAL FEATURES

- These valves have the main stage orifice drilled into the piston rather than a staked-in orifice. This allows the valve to survive physically demanding applications.
- Pressure at port 3 is directly additive to the valve setting at a 1:1 ratio and should not exceed 3000 psi (210 bar).
- Maximum inlet pressure is determined by the bias spring. The D spring is tested with 2000 psi (140 bar) maximum differential pressure and the W spring is tested with 5000 psi (350 bar) maximum inlet pressure.
- NOTE: With the -8 control option, the main stage valve should first be installed to the correct torque value. The T-8A pilot control valve should then be installed into the main stage valve to its required torque value.
- The -8 control option allows the pilot control valve to be incorporated directly into the end of the relief cartridge via the T-8A cavity. These pilot control cartridges are sold separately and include electro-proportional, solenoid, air pilot, and hydraulic pilot operation. See Pilot Control Cartridges.
- 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.
- Pilot operated valves exhibit very low dead-band transition between reducing and relieving modes.
- Pilot operated valves exhibit exceptionally flat pressure/flow characteristics, are very stable and have low hysteresis.
- 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

- [PPFF](#) Pilot-operated, pressure reducing/relieving valve with drilled piston orifice