



This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the modulating element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between port 1 and port 2.

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

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|--|----------------------------------|
| Cavity | T-18A |
| Series | 4 |
| Capacity | 200 gpm |
| Maximum Operating Pressure | 5000 psi |
| Control Pilot Flow | 15 - 20 in ³ /min. |
| Main stage leakage at 110 SUS (24 cSt) | 5 in ³ /min.@1000 psi |
| Pilot Control Cavity | T-8A |
| Valve Hex Size | 1 5/8 in. |
| Valve Installation Torque | 350 - 375 lbf ft |
| Model Weight | 1.30 lb. |
| Seal kit - Cartridge | Buna: 990-018-007 |
| Seal kit - Cartridge | EPDM: 990-018-014 |
| Seal kit - Cartridge | Polyurethane: 990-018-002 |
| Seal kit - Cartridge | Viton: 990-018-006 |

NOTES: • Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

OPTION SELECTION EXAMPLE: RPKC8WN

ADJUSTMENT RANGE

(W)

SEAL MATERIAL

(N)

W 100 - 5000 psi (7 - 350 bar)
D 25 - 3000 psi (1,7 - 210 bar)

N Buna-N
E EPDM
V Viton

TECHNICAL FEATURES

- All 2-port relief cartridges (except pilot reliefs) are physically and functionally interchangeable (same flow path, same cavity for a given frame size).
- Will accept maximum pressure at port 2; suitable for use in cross port relief circuits.
- Main stage orifice is protected by a 150-micron stainless steel screen.
- Not suitable for use in load holding applications due to spool leakage.
- Back pressure on the tank port (port 2) is directly additive to the valve setting at a 1:1 ratio.
- 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.
- 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.
- 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

