



Pilot-operated, anti shock relief cartridges limit maximum system pressure and also limit the rate of pressure rise. The valve opens and then ramps closed at a constant speed, independent of settings and flows. The adjust screw determines the maximum (relief) setting and the minimum (threshold) setting.

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 | 10 - 25 in ³ /min. |
| Factory Pressure Settings Established at | 4 gpm |
| Pressure Ramp Up Time | 400 - 600 ms |
| Response Time - Typical | 2 ms |
| Adjustment - No. of CW Turns from Min. to Max. setting | 4.5 |
| Valve Hex Size | 1 5/8 in. |
| Valve Installation Torque | 350 - 375 lbf ft |
| Adjustment Screw Internal Hex Size | 5/32 in. |
| Locknut Hex Size | 9/16 in. |
| Locknut Torque | 80 - 90 lbf in. |
| Model Weight | 2.99 lb. |
| Seal kit - Cartridge | Buna: 990-318-007 |
| Seal kit - Cartridge | Viton: 990-318-006 |
| U.S. Patent # | 6,039,070 |

OPTION SELECTION EXAMPLE: RPKTLAN

| CONTROL | (L) | ADJUSTMENT RANGE | (A) | SEAL MATERIAL | (N) | MATERIAL/COATING |
|---|-----|--|-----|-----------------|-----|--|
| L Standard Screw Adjustment | | A 2000 - 3000 psi (140 - 210 bar), 2000 psi (140 bar) Standard Setting | | N Buna-N | | Standard Material/Coating |
| C Tamper Resistant - Factory Set | | C 4500 - 6000 psi (315 - 420 bar), 4500 psi (315 bar) Standard Setting | | V Viton | | IAP Stainless Steel, Passivated |
| | | W 3000 - 4500 psi (210 - 315 bar), 3000 psi (210 bar) Standard Setting | | | | |

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.
- The seals on the adjust screw are exposed to system pressure which means this valve can only be adjusted when the pressure is removed. The setting procedure is; check the setting, remove the pressure, adjust the valve, check the new setting.
- Not suitable for use in load holding applications.
- When pressure at the inlet (port 1) exceeds the threshold setting, the valve opens to tank (port 2). The pilot section moves forward at a steady rate, increasing the setting by compressing the pilot spring. Maximum setting is achieved when the pilot section reaches a mechanical stop.
- Valve provides protection for pumps and motors from pressure transients due to sudden load changes, especially variable displacement pumps, since the displacement mechanism is sometimes too slow to catch these pressure transients.
- Valve provides protection for hydrostatic drives by reducing the jerk caused by sudden reversals. The valve is suitable for cross-port applications.
- When used with a switching device, the valve can provide the ramp characteristic typically provided by proportional valves.
- Small power units can be started against an anti shock relief to provide longer pump life.
- Back pressure on the tank port (port 2) is directly additive to the valve setting at a 1:1 ratio.
- 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

