



The bi-directional, direct-acting relief cartridge is a normally closed, pressure-limiting valve used to protect hydraulic components from pressure transients. When the pressure differential between ports 1 and 2 exceeds the valve setting, the valve starts to open, throttling flow to limit the pressure rise, regardless of the direction.

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

Cavity	T-10A
Series	1
Capacity	25 gpm
Maximum Operating Pressure	5000 psi
Factory Pressure Settings Established at	4 gpm
Maximum Valve Leakage at Reseat	10 drops/min.
Response Time - Typical	2 ms
Reseat	>85% of setting
Hysteresis	≤ 3 %
Adjustment - No. of CW Turns from Min. to Max. setting	5
Valve Hex Size	7/8 in.
Valve Installation Torque	30 - 35 lbf ft
Model Weight	0.37 lb.
Seal kit - Cartridge	Buna: 990-310-007
Seal kit - Cartridge	Viton: 990-310-006
U.S. Patent #	11,384,857

OPTION SELECTION EXAMPLE: RBDALAN

CONTROL	(L) ADJUSTMENT RANGE	(A) SEAL MATERIAL	(N)
L Standard Screw Adjustment	A 1200 - 3000 psi (85-210 bar), 1500 psi (105 bar) Standard Setting	N Buna-N	
C Tamper Resistant - Factory Set	W 3000 - 5000 psi (210 - 350 bar), 4000 psi (280 bar) Standard Setting	V Viton	

TECHNICAL FEATURES

- Capacity from port 1 to port 2 is 25 GPM (95 L/min). Flow from port 2 to port 1 is rated at 10 GPM (40 L/min).
- Recommended minimum setting is 1200 psi (85 bar). Note: At settings below 1200 psi (85 bar), the valve is rated for maximum transient flows of 25 GPM (95 L/min) only.
- Because the modulating occurs inside the cartridge, these valves are immune to most of the problems associated with cavitation, namely noise and manifold erosion.
- 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.
- Valve is relatively insensitive to varying oil temperatures and oil borne contamination.
- Select a spring range where the desired relief setting is approximately mid-range to high between the minimum and maximum pressure to ensure maximum valve repeatability.
- 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

