



Fast-acting, pilot-operated, balanced piston relief cartridges are normally closed, pressure-limiting valves used to protect hydraulics components from pressure transients. Fast opening and closing is gained at the expense of smoothness. When the pressure at the inlet (port 1) reaches the valve setting, the valve starts to open to tank (port 2), throttling flow to limit the pressure rise. These valves have low pressure rise vs. flow and are very fast.

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

Cavity	T-18A
Series	4
Capacity	200 gpm
Maximum Operating Pressure	5000 psi
Factory Pressure Settings Established at	4 gpm
Maximum Valve Leakage at 110 SUS (24 cSt)	5 in ³ /min. @1000 psi
Response Time - Typical	2 ms
Adjustment - No. of CW Turns from Min. to Max. setting	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	2.59 lb.
Seal kit - Cartridge	Buna: 990-018-007
Seal kit - Cartridge	Polyurethane: 990-018-002
Seal kit - Cartridge	Viton: 990-018-006

OPTION SELECTION EXAMPLE: RPKELAN

CONTROL	(L)	ADJUSTMENT RANGE	(A)	SEAL MATERIAL	(N)	MATERIAL/COATING
L Standard Screw Adjustment		A 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting		N Buna-N		Standard Material/Coating
C Tamper Resistant - Factory Set		B 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting		V Viton		/AP Stainless Steel, Passivated
K Handknob		C 150 - 6000 psi (10,5 - 420 bar), 1000 psi (70 bar) Standard Setting				/LH Mild Steel, Zinc-Nickel
		D 25 - 800 psi (1,7 - 55 bar), 400 psi (28 bar) Standard Setting				
		E 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting				
		N 60 - 800 psi (4 - 55 bar), 400 psi (28 bar) Standard Setting				
		Q 60 - 400 psi (4 - 28 bar), 200 psi (14 bar) Standard Setting				
		W 150 - 4500 psi (10,5 - 315 bar), 1000 psi (70 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. If used in cross port relief circuits, consider spool leakage.
- 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.
- 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



