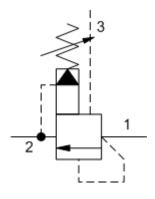


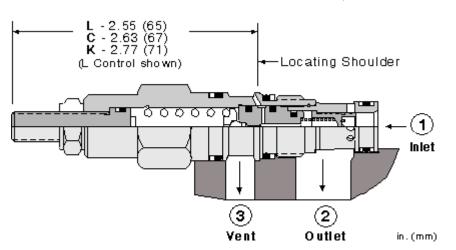
MODEL

Ventable, pilot-operated, balanced piston relief valve CAPACITY: 7.5 gpm / CAVITY: T-163A









Ventable, pilot-operated, balanced piston relief cartridges are normally closed pressure regulating valves. When the pressure at the inlet (port 1) reaches the valve setting, the valve starts to open to tank (port 2), throttling flow to regulate the pressure. They provide a vent port (port 3) that connects between the main piston and pilot stage to provide for remote control by other pilot or 2-way valves. These valves are accurate, have low pressure rise vs. flow, they are smooth and quiet, and are moderately fast.

TECHNICAL DATA	NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.
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Cavity	T-163A			
Series	0			
Capacity	7.5 gpm			
Maximum Operating Pressure	5000 psi			
Control Pilot Flow	7 - 10 in³/min.			
Factory Pressure Settings Established at	4 gpm			
Maximum Valve Leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi			
Response Time - Typical	10 ms			
Adjustment - No. of CW Turns from Min. to Max. setting	5			
Valve Hex Size	3/4 in.			
Valve Installation Torque	20 - 25 lbf ft			
Adjustment Screw Internal Hex Size	5/32 in.			
Locknut Hex Size	9/16 in.			
Locknut Torque	80 - 90 lbf in.			
Model Weight	.30 lb			
al kit - Cartridge Buna: 990-163-007				
Seal kit - Cartridge	EPDM: 990-163-014			
Seal kit - Cartridge	Polyurethane: 990-163-002			
Seal kit - Cartridge	Viton: 990-163-006			

OPTION SELECTION EXAMPLE: RVBALANV

CONTROL (L)		ADJUSTMENT RANGE (A)		SEAL MATERIAL		(V)	MATERIAL/COATING	
 L Standard Screw Adjustment C Tamper Resistant - Factory Set 		A	75 - 3000 psi (5 - 210 bar), 1000 psi (70 bar) Standard Setting	V E	Viton EPDM		/AP	Standard Material/Coating Stainless Steel, Passivated
		В	75 - 1500 psi (5 - 105 bar), 1000 psi (70 bar) Standard Setting	Ν	Buna-N			
		С	75 - 6000 psi (5 - 420 bar), 1000 psi (70 bar) Standard Setting					
		Ν	75 - 800 psi (5 - 55 bar), 400 psi (28 bar) Standard Setting					
		Q	75 - 400 psi (5 - 28 bar), 200 psi (14 bar) Standard Setting					
		W	75 - 4500 psi (5 - 315 bar), 1000 psi (70 bar) Standard Setting					

TECHNICAL FEATURES

- A remote pilot relief on port 3 (vent) will control the valve below its own setting.
- 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.
- Minimum setting is 75 psi (5 bar) for all spring ranges.
- 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.
- The main stage orifice is protected against contamination.
- 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

