



Three-port normally closed modulating elements with relief provide two functions when combined with an external orifice. The mainstage is a bypass compensator that controls a priority flow into the circuit, determined by the external orifice. Input flow in excess of the priority flow is bypassed to tank (port 2). If the inlet (port 1) pressure rises to the valve setting, the valve operates as a normal relief valve.

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

Cavity	T-19A
Series	4
Capacity	80 gpm
Maximum Operating Pressure	5000 psi
Factory Pressure Settings Established at	4 gpm
Maximum Valve Leakage at 110 SUS (24 cSt)	5 in <sup>3</sup> /min. @1000 psi
Response Time - Typical	10 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	3.16 lb.
Seal kit - Cartridge	Buna: 990-019-007
Seal kit - Cartridge	EPDM: 990-019-014
Seal kit - Cartridge	Polyurethane: 990-019-002
Seal kit - Cartridge	Viton: 990-019-006

## OPTION SELECTION EXAMPLE: RVIBLAN

CONTROL	(L)	ADJUSTMENT RANGE	(A)	SEAL MATERIAL	(N)
<b>L</b> Standard Screw Adjustment		<b>A</b> 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting		<b>N</b> Buna-N	
<b>C</b> Tamper Resistant - Factory Set		<b>B</b> 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting		<b>E</b> EPDM	
<b>K</b> Handknob		<b>C</b> 150 - 6000 psi (10,5 - 420 bar), 1000 psi (70 bar) Standard Setting		<b>V</b> Viton	

## TECHNICAL FEATURES

- Compensating pressure for all ranges is 90 psi (6 bar).
- Explanation of the performance curve: The X axis is system pressure. The Y axis shows the pressure differential that the valve creates across the control orifice. The curves represent various bypass flows (pump flow minus control flow). The capacity and performance of this valve is determined by the bypass flow, control flow is not a factor.
- 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.

## PERFORMANCE CURVES

