

Model RVL20-P

Plastic Low-Pressure Angle Relief Valve



- PVC, CPVC, PVDF, or PTFE body (Hastelloy, Titanium, Monel or Alloy 20 Model found here & Stainless Steel Model found here)
- 1/2"-2" NPT THD

- Accurate relief pressures from 0.50 PSI (0.03 Bar) to 75 PSI (~5 Bar)
- Adjustable pressure in multiple spring ranges

Features

Low-pressure valve body: Available in a wide variety of high-performance engineered plastics PVC, CPVC, PTFE, PVDF. **Elastomeric diaphragm:** Elastomers Diaphragm includes Teflon with reinforced Viton. **Spring chamber:** Safety relief valve standard construction is PVC. Alternates: CPVC, PVDF etc. **Spring and Hardware:** 302SS & 303SS Standard, 316SS Optional **Right-angle porting:** Side inlet, bottom outlet is standard with this diaphragm valve manufacturer's model.

Applications

This safety relief valve can be used for relieving pressures and maintaining upstream line pressures to a specific set point. Pressure relief valve can also be used for bypassing fluids. This is a diaphragm low-pressure valve which is used where accurate set pressures must be maintained. The large diaphragm area compared to a piston pressure relief valve produces much more accurate pressure control with very low hysteresis between opening and closing pressures. See available orifice sizes and flow Cv below.

Options

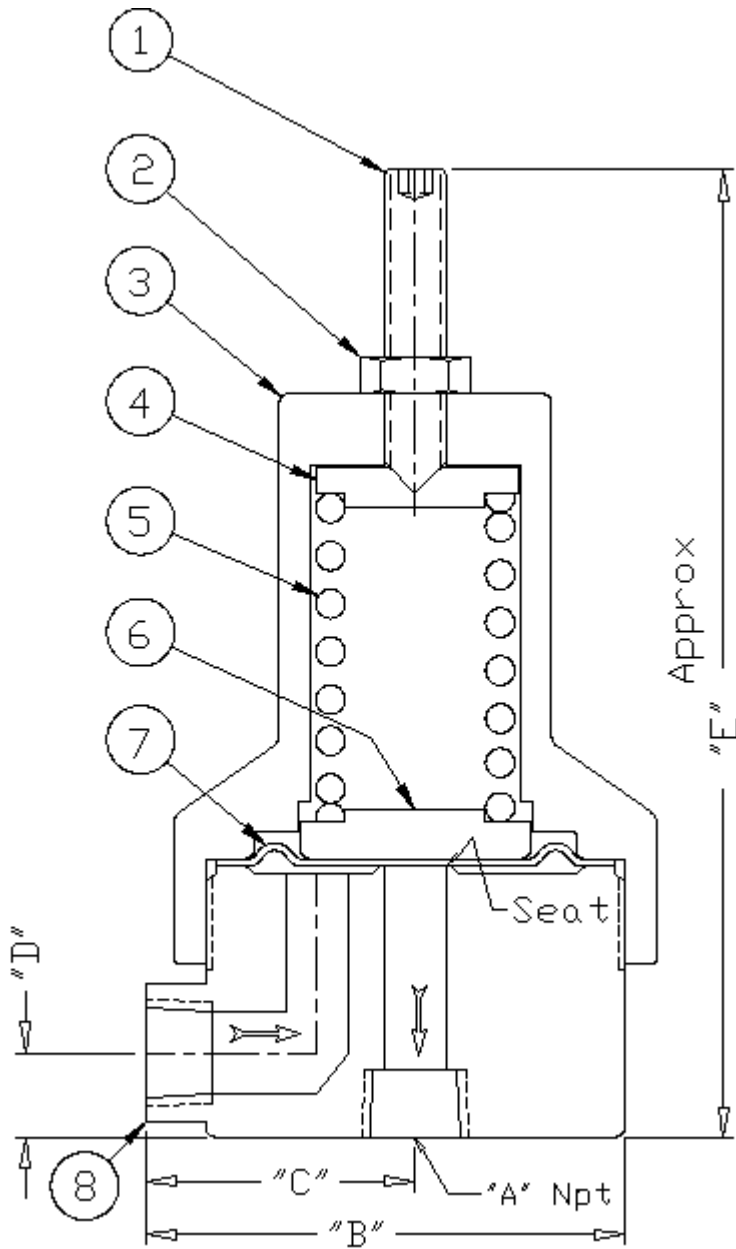
See pricing Table to select available options

Principle of Operation

This is a diaphragm and spring type relief valve where the spring constantly opposes the pressure acting against the diaphragm which seals off the inlet port from the outlet port at the valve seat. The desired relief or bypass pressure is achieved by compressing the spring until the spring force is adequate to balance the pressure force acting against the diaphragm. When the inlet pressure exceeds the set pressure, the diaphragm will open to relieve and bypass the excess pressure. The valve will operate in a vertical orientation as illustrated, horizontal, or any other orientation.

This valve is typically mounted to a device to be protected such as a tank or other pressure containing device. If a flow stream needs to be protected from overpressure, then the valve is mounted on the side of a tee or at the end of a line branch where it will pass excess flow only when the valve opens. The outlet port of the valve is usually piped to a drain or discharged directly to atmosphere only if the liquid safe to be discharged without injuring personnel or damaging equipment nearby.

Angle Pattern Plastic Relief Valve



RVL-20P

Material List and Specification

#	Item	Materials
1.	Adjusting screw	Stainless Steel
2.	Lock nut	Stainless Steel
3.	Spring chamber	PVC
4.	Spring pusher	Stainless Steel
5.	Spring	Stainless Steel
6.	Spring Carrier	Stainless Steel
7.	Diaphragm	Teflon / Viton
8.	*Body	PVC, CPVC, PTFE

*Body also available in brass, PVC, Teflon, Monel, and Hastelloy

Dimensions

Dimensions (inch)				
A	B	C	D	E
1/2	3	1.50	0.88	5.88
3/4	3	1.50	1.38	6.69
1	4	2.00	1.63	9.62
1.25	4	2.00	1.70	
1.50	4.50	2.25	2.13	
2	5	2.50	2.25	

Note: Dimensions are approximate and are subject to change without notice. Request certified dimensions before final product installation.

11.50

11.69

12.38

1/2" RVL20P-05T

Rated pressure 75 psig (~5.2 barg)

Multiple Spring Ranges from:0.3-75 psig (0.021-5.17 barg) Select spring from pricing page

3/4" RVL20P-07T

Rated pressure 75 psig (~5.2 barg)

Multiple Spring Ranges from:0.3-75 psig (0.021-5.17 barg) Select spring from pricing page

1" RVL20P-10T

Rated pressure 75 psig (~5.2 barg)

Multiple Spring Ranges from:0.3-75 psig (0.021-5.17 barg) Select spring from pricing page

1 1/2" RVL20P-15T

Rated pressure 75 psig (~5.2 barg)

Multiple Spring Ranges from:2-75 psig (0.138-5.17 barg) Select spring from pricing page

2" RVL20P-20T

Rated pressure 75 psig (~5.2 barg)

Multiple Spring Ranges from:2-75 psig (0.138-5.17 barg) Select spring from pricing page

The spring ranges listed above are not achievable with one spring, but are compressed to show overall product capability. Select a specific spring

range in the pricing pages or specify a set pressure when ordering.