

Model RVL20-EX

Exotic Alloy Low Pressure Angle Relief Valve



- Hastelloy, Titanium, Monel or Alloy 20 body

- 1/4"-2" NPT THD (Not all materials available in all sizes, See pricing pages)
- Accurate relief pressures from 0.50 PSI (0.03 Bar) to 75 PSI (5 Bar)
- Adjustable pressures in multiple spring ranges (See pricing table below)

Features

- **Body:** Hastelloy, Titanium, Monel or Alloy 20
- **Elastomeric diaphragm:** Choice of different elastomers includes reinforced Teflon, Viton, Buna, and EPDM (most materials always in stock).
- **Spring chamber:** Standard construction is stainless steel. Can be upgraded
- **Right-angle porting:** Side inlet, bottom outlet is standard with this diaphragm valve manufacturer's model. For in-line ported diaphragm valve model RVi-20-EX which is usually the more preferred piping arrangement that we generally stock, so deliveries are shorter, and are also usually **priced less**. Special threads or ANSI and sanitary flanges (tri-clamp flanges) are also available.

Applications

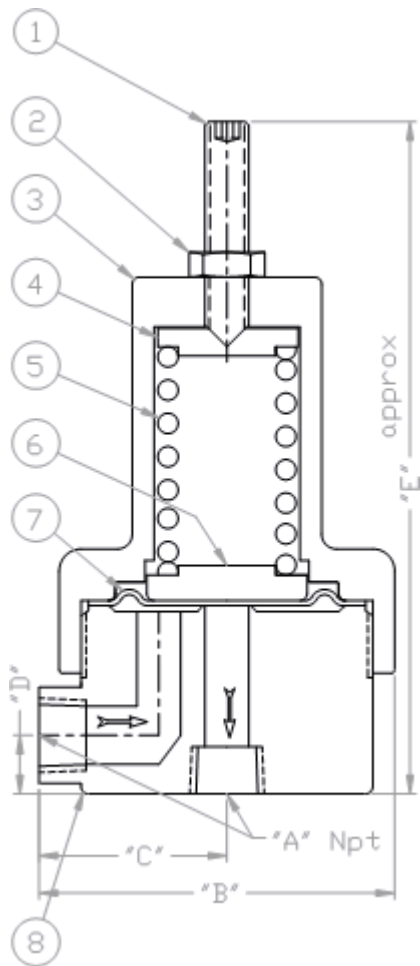
This safety relief valve can be used for relieving pressures and maintaining upstream line pressures to a specific set pressure. This diaphragm valve can also be used for bypassing fluids or gases. Only clean liquids and gases are recommended. When liquids contain debris or other solid matter that might cause improper operation of the diaphragm valve, a filter or strainer with a fine wire mesh should be installed before the inlet of the valve. Basket strainers or filters can be purchased from Straval to solve this problem. This valve is used where accurate set pressures must be maintained. This is made possible because of the large diaphragm area used to sense the inlet pressure. Compared to higher-pressure piston models, this valve has a very low hysteresis between opening and closing pressures. See available orifice sizes and flow Cv below.

We now offer some models that meet NACE MR0175. These are not priced on line. Consult factory.

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.

Exotic Alloy Relief Valve



RVL-20 Exotic Alloy Relief Valve

Material List and Specification

#	Item	Materials
1.	Adjusting screw	St. Steel (or upgrade)
2.	Lock nut	St. Steel (or upgrade)
3.	Spring chamber	St. Steel (or upgrade)
4.	Spring pusher	St. Steel (or upgrade)
5.	Spring	St. Steel (or upgrade)
6.	Spring Carrier	St. Steel (or upgrade)
7.	Diaphragm	Teflon/ Viton/ Buna
8.	*Body	Hastelloy, Titanium, Monel Alloy 20,

*Body also available in PVC, Monel, Teflon, and Hastelloy (most sizes)

Dimensions

Dimensions (inch)				
A	B	C	D	E
1/4	2.38	1.00	.44	5.56

3/8	2.88	1.25	.50	5.59
1/2	2.88	1.25	.63	5.88
3/4	2.88	1.25		6.69
1	4.25	2.00		9.62
1.25	4.25	2.00		11.5
1.5	6.09	3.75		
2	6.09	3.75	1.25	

1.50

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

3.50

2.63 12.87

13.57

1/4" RVL20-02T-EX

Low Pressure Group 0.3-25 psi (0.02-1.7 bar)

Multiple Spring Ranges from:0.3-25 psig (0.021-1.72 barg) Select spring from pricing page

High Pressure Group 3-75 psi (0.2-5 bar)

Multiple Spring Ranges from:3-75 psig (0.207-5.17 barg) Select spring from pricing page

3/8" RVL20-03T-EX

Low Pressure Group 0.3-25 psi (0.02-1.7 bar)

Multiple Spring Ranges from:0.3-25 psig (0.021-1.72 barg) Select spring from pricing page

High Pressure Group 3-75 psi (0.2-5 bar)

Multiple Spring Ranges from:3-75 psig (0.207-5.17 barg) Select spring from pricing page

1/2" RVL20-05T-EX

Low Pressure Group 0.3-25 psi (0.02-1.7 bar)

Multiple Spring Ranges from:0.3-25 psig (0.021-1.72 barg) Select spring from pricing page

High Pressure Group 3-75 psi (0.2-5 bar)

Multiple Spring Ranges from:3-75 psig (0.207-5.17 barg) Select spring from pricing page

3/4" RVL20-07T-EX

Low Pressure Group 0.3-25 psi (0.02-1.7 bar)

Multiple Spring Ranges from:0.3-25 psig (0.021-1.72 barg) Select spring from pricing page

High Pressure Group 3-75 psi (0.2-5 bar)

Multiple Spring Ranges from:3-75 psig (0.207-5.17 barg) Select spring from pricing page

1" RVL20-10T-EX

Low Pressure Group 0.3-25 psi (0.02-1.7 bar)

Multiple Spring Ranges from:0.3-25 psig (0.021-1.72 barg) Select spring from pricing page

High Pressure Group 3-75 psi (0.2-5 bar)

Multiple Spring Ranges from:3-75 psig (0.207-5.17 barg) Select spring from pricing page

1 1/4" RVL20-12T-EX

Low Pressure Group 0.3-25 psi (0.02-1.7 bar)

Multiple Spring Ranges from:0.3-25 psig (0.021-1.72 barg) Select spring from pricing page

High Pressure Group 3-75 psi (0.2-5 bar)

Multiple Spring Ranges from:3-75 psig (0.207-5.17 barg) Select spring from pricing page

1 1/2" RVL20-15T-EX

Low Pressure Group 0.3-25 psi (0.02-1.7 bar)

Multiple Spring Ranges from:0.3-25 psig (0.021-1.72 barg) Select spring from pricing page

High Pressure Group 3-75 psi (0.2-5 bar)

Multiple Spring Ranges from:3-75 psig (0.207-5.17 barg) Select spring from pricing page

2" RVL20-20T-EX

All Stainless Steel with V-Band Clamp 2-80 psi (0.2-5.5 bar)

Multiple Spring Ranges from:2-80 psig (0.138-5.52 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.