

5RV SERIES PIPELINE RELIEF VALVE



The 5RV Series Pipeline Relief Valves are factory preset with pressure ranges from 10 to 2400 PSIG (0.7 to 166 BAR) to meet the diverse demands of various industrial, laboratory, and gas distribution applications. The encapsulated O-ring seal prevents seal extrusion and cold flow. The valve's high flow design, combined with narrow-band interchangeable springs, minimizes system pressure rise as flow demand increases, providing full flow failure protection of pipeline and downstream equipment. CONCOA 5RV pipeline relief valves are available in inline or discharge-to-atmosphere configurations, available in brass or stainless steel with a variety of seat material options for safe use in a wide range of system applications.



5RV BB19-01-0275 shown

Typical Applications

- Laboratory, Research, or Process Plant Pipelines
- Biotech and Pharmaceutical Gas Systems
- Environmental Control Systems

Features

High Flow Design optimizes pressure reduction in high flow applications

Leak Free Connections maintain system integrity under high pressure

Factory Set Pressure provides tamper proof design for optimal performance

Choice of Seat Material facilitates a broad range of gases and applications

Zero Leakage to 98% of Set Pressure reduces risk of gas escaping into atmosphere

Inline or Vent to Atmosphere Configurations offer safe pressure management in a broad range of system requirements

Materials and Specifications

Body: Brass or 316 stainless steel

Seat Material: EPDM; Neoprene; PTFE; or FKM

Inlet Size (NPT): 1/4 in; 3/8 in; 1/2 in; or 3/4 in

Connection Style: Inline, MNPT to FNPT; or Discharge to atmosphere, MNPT to atmosphere

Nominal Set Pressure Range: 10 PSIG to 2400 PSIG (0.7 to 166 Bar)

Set Pressure Tolerance: $\pm 5\%$ on increasing pressure

Proof Pressure: 3700 PSIG (225 BAR)

Burst Pressure: >5000 PSIG (345 BAR)

Reseat: 90% - 95% of actual crack pressure

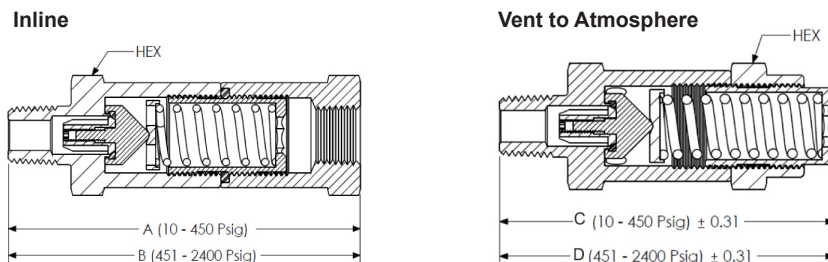
Temperature Range (based on seat material): -320°F to 400°F (-196°C to 204°C)

Conformances: Cleanliness meets or exceeds CGA G-4.1; ANSI/ASME B1.20.1 (inlet/outlet connections); ASTM B16.1 (brass body); ASTM A479 (stainless steel body)

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Dimensional Data



Dimensional Data

Inlet (NPT)	Inline		Vent to Atmosphere		Hex
	A	B	C	D	
1/4 in	3.34	4.24	2.87	3.77	1 in
3/8 in					
1/2 in	4.16	5.06	3.56	4.46	1 in - 1/4 in
3/4 in	5.90	7.14	4.82	6.13	1 in - 3/4 in

Dimensional data is stated in inches

Flow Data

Set Pressure Range	Inline				Discharge to Atmosphere			
	10-1250 PSIG		1251-2400 PSIG		10-1250 PSIG		1251-2400 PSIG	
Inlet Size (NPT)	Orifice	Kd	Orifice	Kd	Orifice	Kd	Orifice	Kd
1/4 in	.275	0.27	.215	0.16	.275	0.65	.215	0.65
3/8 in								
1/2 in	.515	0.20	.275	0.27	.515	0.35	.275	0.65
3/4 in	.735	0.45	.515	0.20	.735	0.45	.515	0.70

Kd is stated at 110% of Nominal Set Pressure. Orifice sizes are stated in inches. Flow curves available upon request.

Ordering Information

5RV	A	B	C	D	-PSIG
Series 5RV	Body Material	Seat Material	Style (porting connection)	Size (NPT)	Relief Pressure
	B: Brass	E: EPDM	1: Inline (MNPT to FNPT)	4: 1/4 in	10 PSIG - 2,400 PSIG
	S: 316 Stainless Steel	N: Neoprene	2: Discharge to Atmosphere (MNPT to atmosphere)	6: 3/8 in*	<i>Please specify factory set pressure in PSIG in last 4 digits.</i>
		T: PTFE		8: 1/2 in	<i>For values under 1000 PSIG, use leading "0"s.</i>
		V: FKM		9: 3/4 in	<i>Ex:</i> --15 PSIG: 0015 --250 PSIG: 0250 --1500 PSIG: 1500 --2400 PSIG: 2400
				<i>*Available in brass only. Not valid with 4th digit "S".</i>	