

# 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 and laboratory 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 brass or stainless steel and inline, discharge to atmosphere, and discharge to atmosphere with manual pull-ring override configurations.

## Typical Applications

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



5RV BB19-01-275 shown

## Features

**High Flow Design** optimizes pressure reduction in high flow applications

**Factory Preset, Tamper Proof Design** ensures accurate crack pressure and 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 Options** offer safe pressure management for various system requirements

**Pull-Ring Override Option** allows manual control of pressure relief when needed

## Materials and Specifications

**Body:** Brass; 303 stainless steel; or 316 stainless steel

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

**Crack Pressure Tolerance:**  $\pm 5\%$  on increasing pressure

**Seat Material:** Nitrile butadiene rubber (NBR); EPDM; Neoprene; Silicone; PTFE; or FKM

**Connection Style:** Inline, male to female NPT; Atmospheric discharge, male NPT to atmosphere; or Atmospheric discharge with manual pull-ring, male NPT to atmosphere

**NPT Size:** 1/4"; 3/8"; 1/2"; or 3/4"

**Crack Pressure Tolerance:**  $\pm 5\%$  on increasing pressure

**Proof Pressure:** 3700 PSIG (255 BAR)

**Burst Pressure:** >5000 PSIG (345 BAR)

**Reseat:** 95% of actual crack pressure

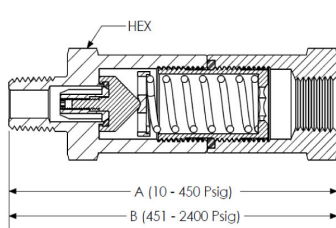
**Temperature Range:** -320°F to 400°F (-220°C to 204°C )

**Conformances:** Cleanliness meets or exceeds CGA G-4.1

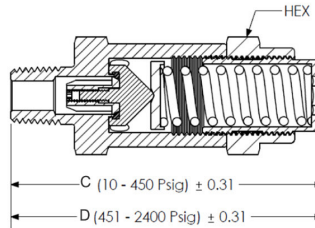
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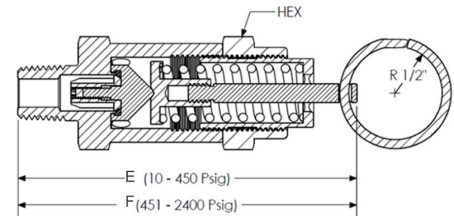
## Dimensional Data



Inline



Vent to Atmosphere



Vent to Atmosphere  
with Pull Ring Override

Inlet (NPT)	Inline		Vent to Atmosphere		Vent to Atmosphere (manual pull ring)		Hex
	A	B	C	D	E	F	
1/4"	3.34	4.24	2.87	3.77	3.30	4.20	1"
3/8"							
1/2"	4.16	5.06	3.56	4.46	4.27	5.18	1" - 1/4"
3/4"	5.90	7.14	4.82	6.13	5.44	6.70	1" - 3/4"

Dimensional data is stated in inches

## Ordering

5RV	A	B	C	D	-PSIG
Series	Body Material	Seat Material	Connection Style	NPT Size	Relief Pressure
5RV	<b>B:</b> Brass	<b>B:</b> Nitrile butadiene rubber (NBR)	<b>1:</b> Inline (male NPT to female NPT)	<b>4:</b> 1/4"	10 PSIG - 2,400 PSIG (0.7 to 166 BAR)
	<b>S:</b> 316 Stainless steel	<b>E:</b> EPDM	<b>2:</b> Atmospheric discharge (male NPT to atmosphere)	<b>6:</b> 3/8"	<i>Please specify factory set pressure in last 4 digits.</i>
	<b>T:</b> 303 Stainless steel	<b>N:</b> Neoprene	<b>3:</b> Atmospheric discharge with manual pull-ring (male NPT to atmosphere)	<b>8:</b> 1/2"	<i>For values under 1000 PSIG, use leading "0"s.</i>
		<b>S:</b> Silicone		<b>9:</b> 3/4"	<i>Ex: --15 PSIG: 0015 --250 PSIG: 0250 --1500 PSIG: 1500 --2400 PSIG 2400</i>
		<b>T:</b> PTFE			
		<b>V:</b> FKM			