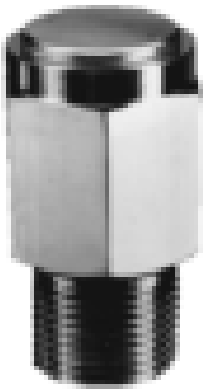
CIRCLE SEAL CONTROLS

500 Series

Adjustable Popoff & Inline Relief Valves
0.5 to 150 psig (10 bar)



Features

- Popoff or inline valves
- Adjustable crack pressure
- Zero leakage
- Optional factory preset
- Accurate set pressure
- Wide range of cracking pressure
- Tamper proof adjustment
- 100% seat leakage tested
- PED certifications and CE marking available for most models

Applications

- System overpressure protection
- Storage tanks
- Fuel recovery systems
- Medical equipment
- Refrigeration & heating equipment
- Measuring & dispensing pumps
- Communications equipment
- Process control instruments
- R & D pilot plants
- Vacuum pump safety

Technical Data

Body/Construction Materials	Aluminum, brass, 300 or 316 stainless steel
O-ring/Materials	Buna-N, silicone, propylene, neoprene, viton, viton, PTFE, or Kalrez®
Spring/Materials	302 stainless steel or 17-7 PH stainless steel
Operating Vacuum	Vacuum to 100 psig (10 bar)
Inline Valve Crack Pressure	0.5 psig (35 mbar)
Inline Valve Reset Pressure	Above 0.5 psig (35 mbar)
Temperature Range	-320°F to +400°F (-196° C to +204° C) Based on o-ring & body material, see "How to Order" section in catalog
Connection Size	1/4"

Note: Proper filtration is recommended to prevent damage to seating surfaces.

How It Works

Closed
Resilient seat design prevents leakage. Sealing efficiency increases with increased pressure up to cracking pressure. Metal to metal poppet stop supports spring/seat prevents sticking.

Open
When system pressure overcomes spring force, poppet opens. As pressure continues to rise, variable orifice behavior poppet and body increases, allowing greater flow.

Resealing
Resilient seat automatically establishes line of contact with spherical seat. Seat provides zero leakage at reseat.

relief valves

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