

## HP500 Series

High Pressure Popoff and Inline Relief Valves  
150 to 575 psig (10 – 40 bar)



Inline version

### Features

Very accurate cracking pressure
Zero leakage up to 95% of cracking pressure
100% seat leakage tested
Tamper-proof adjustment
PED certifications and CE marking available for most models

### Applications

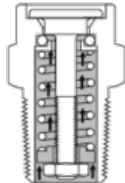
- System overpressure protection
- Storage tanks
- Freon<sup>®</sup> recovery systems
- Medical equipment
- Refrigeration & heating equipment
- Measuring & dispensing pumps
- Communications equipment
- Process control instruments
- R & D pilot plants

### Technical Data

<b>Body Construction Materials</b>	Brass, 316 stainless steel
<b>O-ring Materials</b>	Buna N, ethylene propylene, neoprene, silicone, and Viton <sup>®</sup>
<b>Spring Material</b>	17-7 PH stainless steel
<b>Poppet</b>	Brass, 316 stainless steel
<b>Shroud</b>	Brass, 316 stainless steel
<b>Operating Pressure</b>	• ¼" pipe: 150 to 575 psig (10 to 40 bar) • ½" pipe: 150 to 450 psig (10 to 31 bar)
<b>Temperature Range</b>	-65° F to +350° F (-54° C to +177° C) Based on O-ring & body material, see "How to Order"
<b>Connection Sizes</b>	¼" to ½" male and female pipe

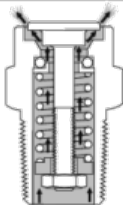
Note: Proper filtration is recommended to prevent damage to sealing surfaces.

### How it Works



#### Closed

The specially-designed poppet seals on the elastomeric O-ring. The increasing pressure within the valve seals tightly against the poppet and prevents leakage to 95% of the cracking pressure. The metal-to-metal stop, on the low pressure side, supports the spring load and prevents seal deformations.



#### Open

The excess pressure is vented instantly when the system pressure overcomes the spring force and opens the poppet. Large flow passages, at the inlet and at the poppet opening, assure minimum pressure rise.

#### Reseating

Repeated, positive reseating occurs at better than 90% of the cracking pressure when the spring action retracts the poppet, reestablishing the seal between the elastomeric O-ring and the poppet shoulder.

### Circle Seal Controls

2301 Wardlow Circle • Corona, CA 92880  
Phone (951) 270-6200 • Fax (951) 270-6201  
www.circlesealcontrols.com

relief valves