

PRV - Series

Application

The PRV series of relief valves are ideal for air service. The valve will weep slightly at set pressure and achieve full lift and high flow by 110 percent of their rated set pressure.

Features

- Bubble tight at 95% of set pressure.
- Easy to read color coded psig / bar labels.
- Unique tamper resistant and staked adjusting screw.
- Repeatable performance.
- 100% factory tested.
- Temperatures Range -320 to +212 F.
- Set pressures range from 17-600psi.

Materials

BodyBrass
 Spring.....Stainless Steel
 Seat RetainerBrass
 Adjusting ScrewBrass
 Seat Disc (Below 140psi).....Fluorosilicone
 (Above 140psi).....Teflon

PRV Series also available with all stainless steel components.

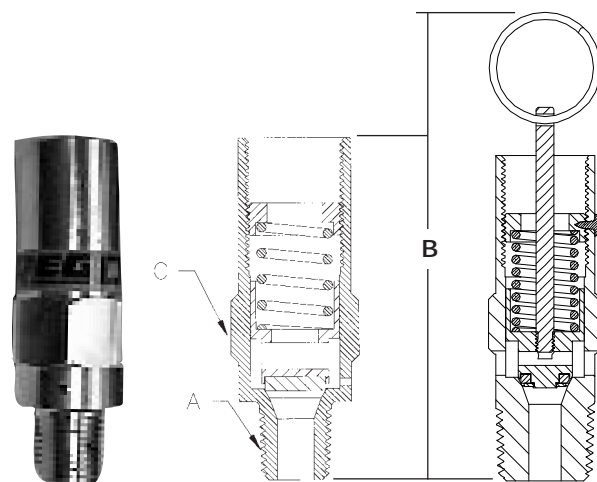
Ordering Information

The PRV - series valves are ordered by specifying the basic relief valve part number and specifying with or without pull ring.

Example:

PRV	250B	R	350
Series	size	ring or no ring	pressure setting

This indicates a PRV250BR350 relief valve is a 1/4" valve with a pull ring set at 350.



Ordering Information

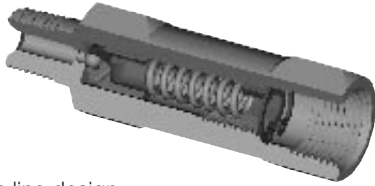
Part Number Specify Relief Setting "XXX"	Pull Ring	Body	A (NPT) Male	B Ht.	C (In.) Hex	Relief Setting
PRV250BRXXX	Yes	Brass	1/4	3.0	7/8	Available in settings from 17-600 psi.
PRV250BXXX	No			2.6		
PRV500BRXXX	Yes		1/2	3.2		
PRV500BXXX	No			2.8		
SS 250TXXX	No	Stainless	1/4"	2.6		
SS 500TXXX	No	Steel	1/2"	2.8		

WARNING: Inspection and maintenance of pressure relief valves is very important. Failure to properly inspect and maintain pressure relief valves could result in personal injuries or property damage. The useful safe service life of a pressure relief valve may be significantly affected by the service environment.

Flow Data for Rego 1/4", 3/8" & 1/2" Relief Valves:

Set Pressure PSIG	Flow Pressure PSIG	Flow Rate SCFM Air
22	24	29
50	55	52
100	110	93
150	165	134
230	253	200
350	385	298
400	440	339
450	495	380
500	550	421

ARV SERIES



Features:

- Space saving in line design.
- Retaining ring prevents adjusting screw from being backed out too far.
- Pop-off action does not “chatter” or “scream”.
- Metal-to-metal seal assures long life.
- Suitable for oil, water and steam.

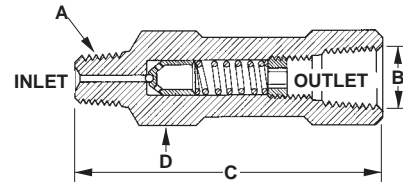
Specifications:

Operating Range	400 to 5000 PSIG
Temperature Range	-60°F to +450°F
CV Factor	.21
Orifice Diameter	$\frac{3}{32}$ "

Ordering Information:

Part Number	A (NPT) Inlet Port	B (NPT) Outlet Port	C (In.) Length	D (In.) Hex
ARV250B	$\frac{1}{4}$ " Male	$\frac{3}{8}$ " Female	$3\frac{1}{8}$	$\frac{7}{8}$

Adjustable design to relieve liquid pressure above a predetermined setting. For use anywhere excessive pressure may harm system components.



Materials:

Body	ASTM B16 Brass
Spring	303 Stainless Steel
Piston	Brass
Ball	Stainless Steel
Adjusting Screw	302 Stainless Steel ($\frac{1}{4}$ " Allen Wrench)
Retaining Ring	Stainless Steel

Flow Data

Flow and pressure drop characteristics for valves manufactured by Engineered Controls International, Inc. are based on laboratory testing of random production samples and by an independent testing agency. The graphs are based on 150 SSU oil at the controlled temperature of 140°F.

Flow coefficients (C_V) have been provided for valves in this catalog. Calculating flow or pressure drop at other conditions is achieved with the following equation:

$$\text{Flow in GPM} = \frac{C_V \sqrt{P_1 - P_2}}{\sqrt{G_f}}$$

Where...

- C_V = Flow coefficient
- P_1 = Inlet pressure (PSIG)
- P_2 = Outlet pressure (PSIG)
- G_f = Specific gravity of medium at operating temperature