



# Adjustable Direct Acting Pressure Reducer

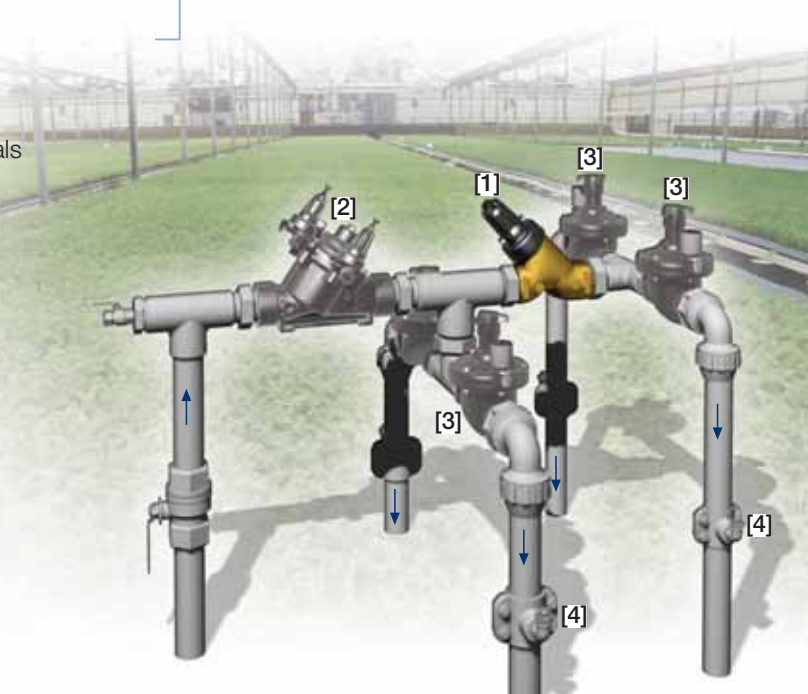
1½"- PRV

The BERMAD Adjustable Direct Acting Pressure Reducer is actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring force. The BERMAD Model 1½"-PRV brass body and reinforced plastic actuator assembly endow it with excellent hydraulic performance capabilities and particularly high mechanical strength. Supplied with a special throttling plug and elastomeric seal, it reduces higher upstream pressure to lower constant downstream pressure even under conditions of near zero demand, and seals drip-tight under no-flow conditions.



## Features and Benefits

- Metal Body and Advanced Construction Materials
  - Suitable for metal piping installations
  - Rigid construction, high stress resistance
  - Proven pressure, flow and weather resistance
- Adjustable Direct Acting Pressure Reducer
  - Constant downstream pressure
  - Immediate response
  - Settable according to season and stage
- Throttling Plug and Elastomeric Seal
  - Accurate and stable low-flow regulation
  - Drip-tight sealing under no-flow conditions
- Unitized Rolling Diaphragm and Guided Plug
  - Smooth and repeatable operation
  - Prevents diaphragm distortion
- User-Friendly Design
  - Can be installed at any orientation
  - Simple in-line inspection and service



## Typical Applications

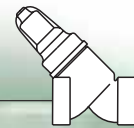
- Primary PRV for High  $\Delta P$  Pressure Reducing Systems
- Pressure Zoning in Topographic Areas
- Secondary Protection of Sensitive Lines
- Lateral Final Burst Protection
- Pressure Reduction for Marginal Plots

[1] BERMAD Model 1½"-PRV establishes a reduced pressure zone for lower elevation plots protecting laterals and distribution line.

[2] BERMAD Pressure Sustaining & Reducing Valve Model IR-123-X

[3] BERMAD Solenoid Controlled Valve Model IR-210-N-M

[4] BERMAD Vacuum Breaker Model ½"-ARV



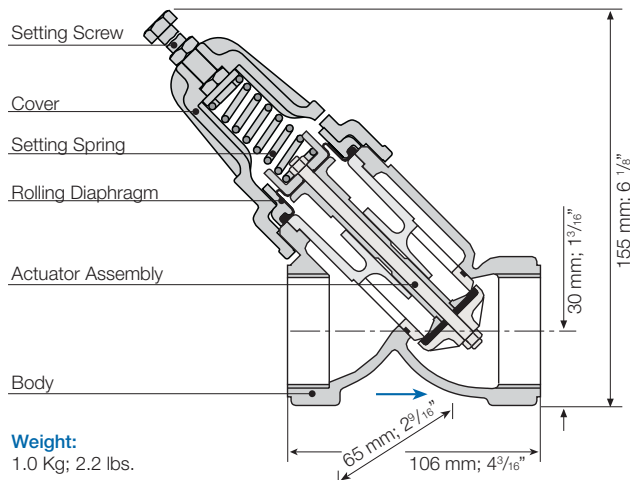
## 1 1/2" - PRV

For full technical details, refer to Engineering Section.

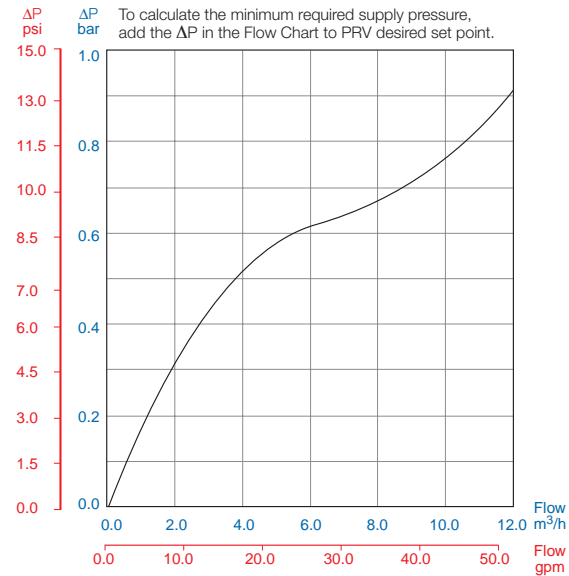
## PRV Series

Pressure Reducing

### Technical Specifications



### Flow Chart required supply pressure above setting



### Technical Data

**Size:** 1 1/2"; DN40  
**End Connections:** Female Threads BSP; NPT  
**Flow Range:** 0.45-18 m<sup>3</sup>/h; 2-80 gpm  
**Pressure Ratings:** 9 bar; 130 psi  
**Operating Pressure Range:** 0.7-9 bar; 10-130 psi  
**Temperature:** Water up to 50°C; 122°F

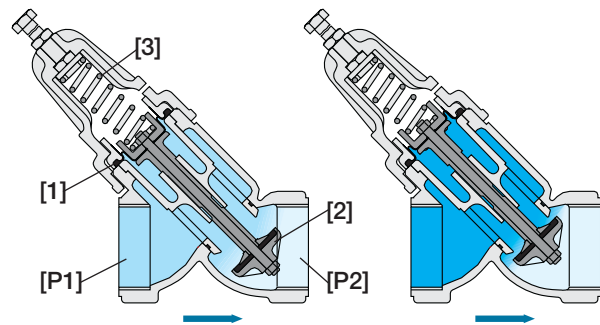
#### Materials:

**Body:** Brass  
**Cover and Actuator Assembly:** Glass-Filled Nylon  
**Diaphragm:** NBR (Buna-N), Nylon fabric reinforced  
**Spring:** Stainless Steel

### Setting Springs Selection Table

Setting Range bar; psi	Spring Color	Spring Name
0.5-1.2; 7-18	White	B
1.0-2.0; 14-29	Red	C
1.5-3.5; 22-51	Black	D
3.0-5.5; 44-80	Brown	Q

### Operation



The Upstream Pressure [P1] applies balanced opening and closing hydraulic forces under the Diaphragm [1] and above the Plug [2]. Downstream Pressure [P2] applies hydraulic closing force under the plug, which seeks to reach equilibrium with the Set Spring [3] force. Should [P2] rise above setting, the hydraulic closing forces rise above the mechanical force of the spring, pushing the plug to modulate closed, reducing [P2] back to setting, and eventually shutting drip-tight.

### How to Order

For Ordering Please Specify:

- Adjustable Direct Acting Pressure Reducer 1 1/2", Female BSP Threads BERMAD Model: 1 1/2"-PRV-R-BP-FF-\_\_\_\*
- Adjustable Direct Acting Pressure Reducer 1 1/2", Female NPT Threads BERMAD Model: 1 1/2"-PRV-R-NP-FF-\_\_\_\*

\* Choose the desired spring and mark B, C, D or Q according to "Setting Springs Selection Table"



info@bermad.com • www.bermad.com

The information herein is subject to change without notice. BERMAD shall not be held liable for any errors. All rights reserved. © Copyright by BERMAD.

PCPAE015 05