

Adjustable Direct Acting Pressure Reducer

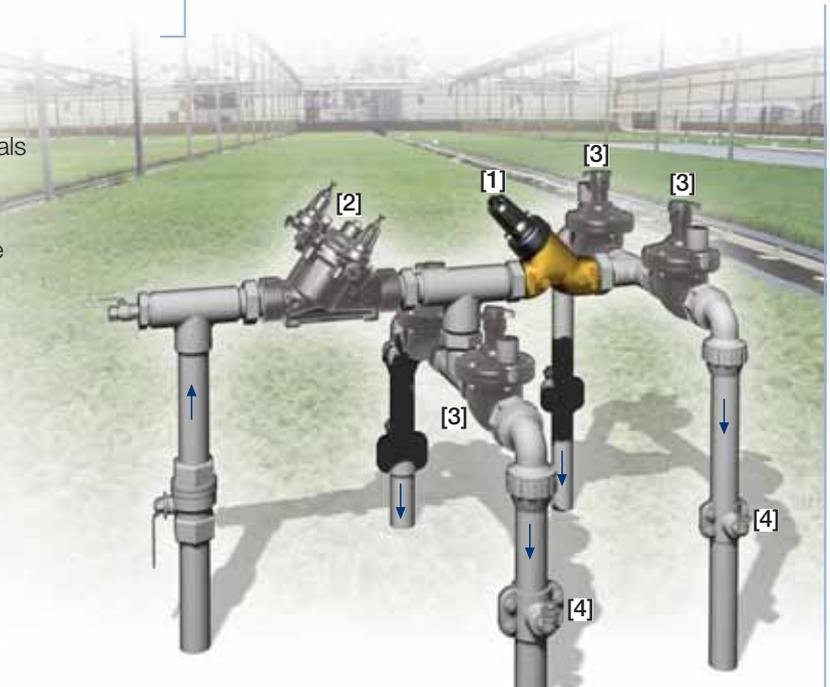
1½"- PRV

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 ΔP Pressure Reducing Systems
- Pressure Zoning in Topographic Areas
- Secondary Protection of Sensitive Lines
- Lateral Final Burst Protection
- Pressure Reduction for Marginal Plots

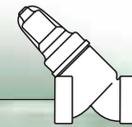
[1] BERMAD Model 1½"-PRV establishes a reduced pressure zone for lower elevation plots protecting laterals and distribution line.

[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

BERMAD Irrigation



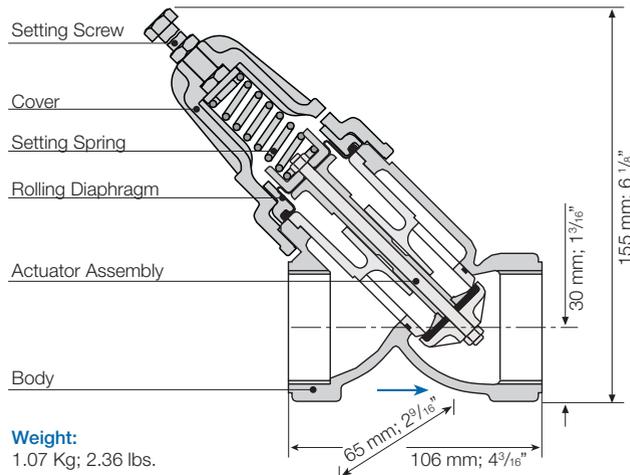
1 1/2" - PRV

For full technical details, refer to Engineering Section.

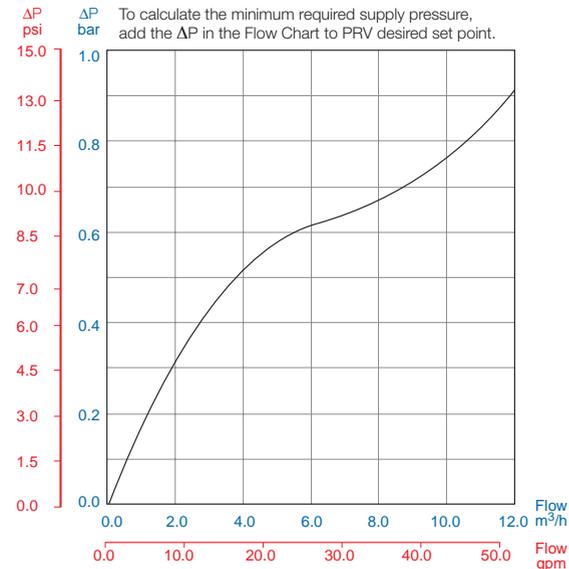
PRV Series

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^3/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

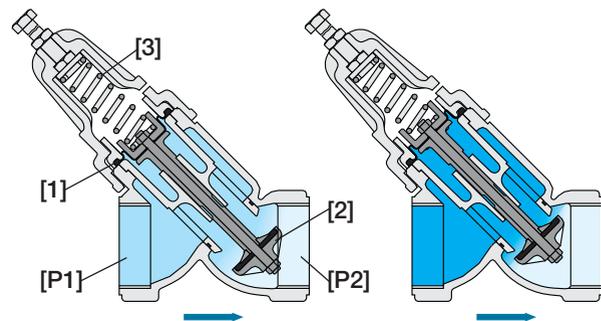
Materials:

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-____*

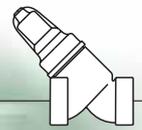
* Choose the desired spring and mark B, C, D or Q according to "Setting Springs Selection Table"



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Adjustable Direct Acting Pressure Reducer

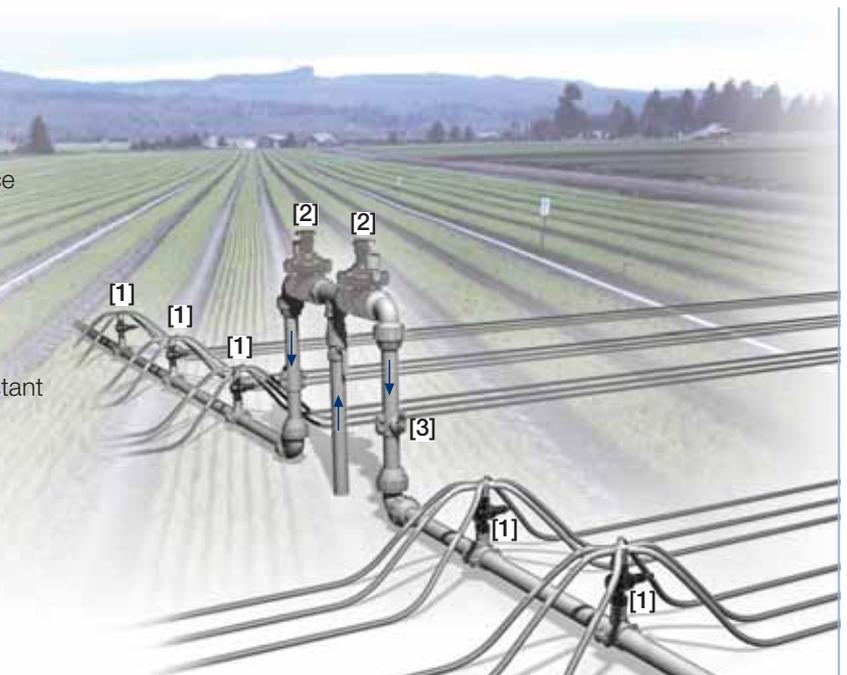
1"-PRV

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 1"-PRV is built of reinforced plastic that endows it with excellent hydraulic performance capabilities and high mechanical strength. It reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure.



Features and Benefits

- Advanced Construction Materials
 - High mechanical strength
 - Proven pressure, flow and weather resistance
- Adjustable Direct Acting Pressure Reducer
 - Constant downstream pressure
 - Immediate response
 - Settable according to season and stage
- Plastic Body and Trim
 - Highly durable, chemical and cavitation resistant
 - Minimizes friction
- Unitized Rolling Diaphragm and Guided Plug
 - Accurate and stable regulation
 - Prevents diaphragm distortion
- User-Friendly Design
 - Can be installed at any orientation
 - Simple in-line inspection and service



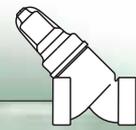
Typical Applications

- Distribution Line Lateral Risers
- Non-Compensating Drip-Line Flow Fixation
- Lateral Final Burst Protection
- Pressure Reduction for Marginal Plots
- Irrigation Machine Sprinkler Flow Control
- Single Sprinkler Flow Fixation

[1] BERMAD Model 1"-PRV protects laterals and compensates for line friction, ensuring dripper flow per design.

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

[3] BERMAD Vacuum Breaker Model 1/2"-ARV



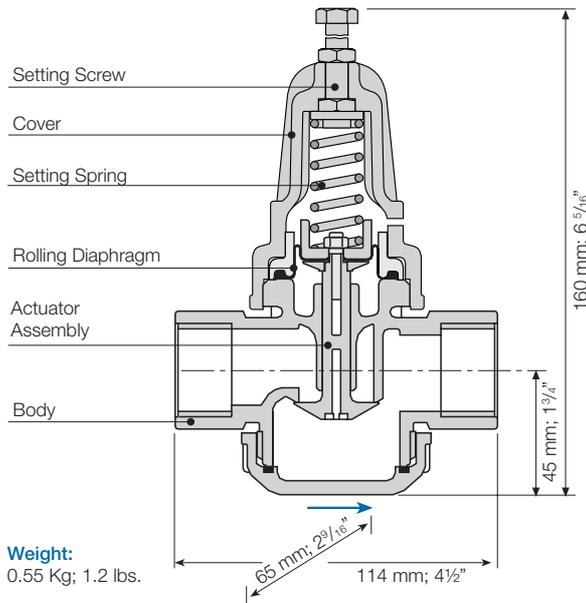
1"- PRV

For full technical details, refer to Engineering Section.

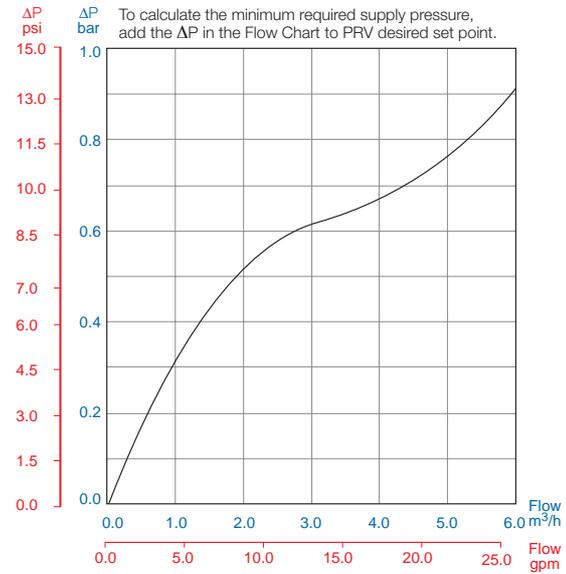
PRV Series

Pressure Reducing

Technical Specifications



Flow Chart required supply pressure above setting



Technical Data

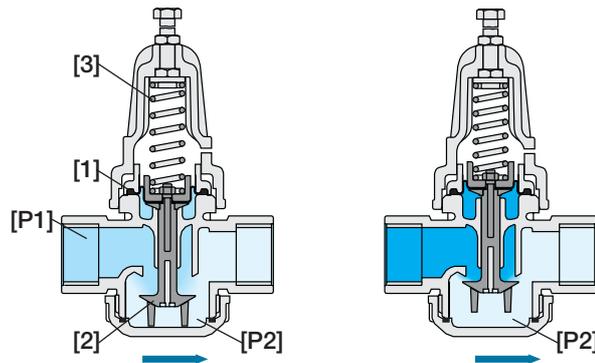
- Size:** 1"; DN25
- End Connections:** Female Threads BSP; NPT
- Flow Range:** 0.45-7 m³/h; 2-31 gpm
- Pressure Ratings:** 9 bar; 130 psi
- Operating Pressure Range:** 0.7-9 bar; 10-130 psi
- Temperature:** Water up to 50°C; 122°F

- Materials:**
- Body, 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, and reducing **[P2]** back to setting.

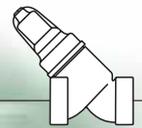
How to Order

For Ordering Please Specify:

- Adjustable Direct Acting Pressure Reducer 1", Female BSP Threads BERMAD Model: 1"-PRV-P-BP-FF-___*
- Adjustable Direct Acting Pressure Reducer 1", Female NPT Threads BERMAD Model: 1"-PRV-P-NP-FF-___*

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





Adjustable Direct Acting Pressure Reducer

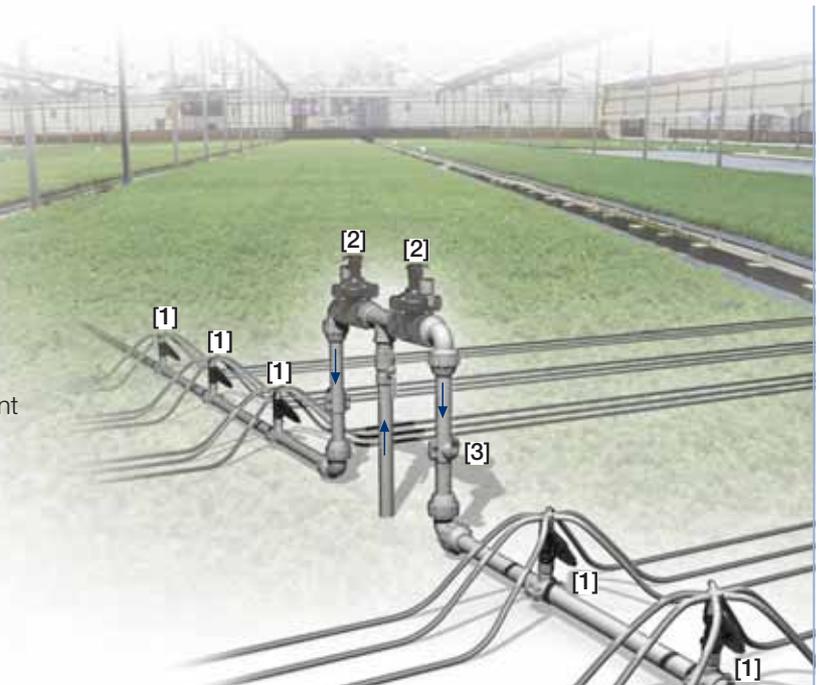
¾"- PRV

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 ¾"-PRV is built of reinforced plastic that endows it with excellent hydraulic performance capabilities and high mechanical strength. It reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure.



Features and Benefits

- Advanced Construction Materials
 - High mechanical strength
 - Proven pressure, flow and weather resistance
- Adjustable Direct Acting Pressure Reducer
 - Constant downstream pressure
 - Immediate response
 - Settable according to season and stage
- Plastic Body and Trim
 - Highly durable, chemical and cavitation resistant
 - Minimizes friction
- Unitized Rolling Diaphragm and Guided Plug
 - Accurate and stable regulation
 - Prevents diaphragm distortion
- User-Friendly Design
 - Can be installed at any orientation
 - Simple in-line inspection and service



Typical Applications

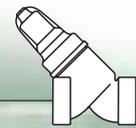
- Distribution Line Lateral Risers
- Non-Compensating Drip-Line Flow Fixation
- Lateral Final Burst Protection
- Pressure Reduction for Marginal Plots
- Irrigation Machine Sprinkler Flow Control
- Single Sprinkler Flow Fixation

[1] BERMAD Model ¾"-PRV protects laterals and compensates for line friction, ensuring dripper flow per design.

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

[3] BERMAD Vacuum Breaker Model ½"-ARV

BERMAD Irrigation



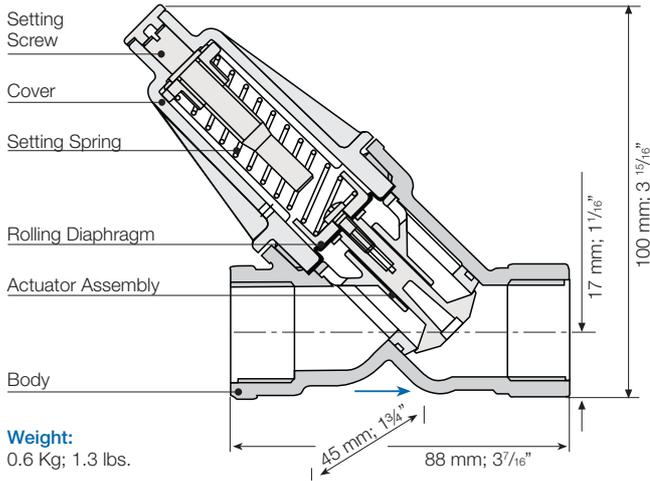
3/4" - PRV

For full technical details, refer to Engineering Section.

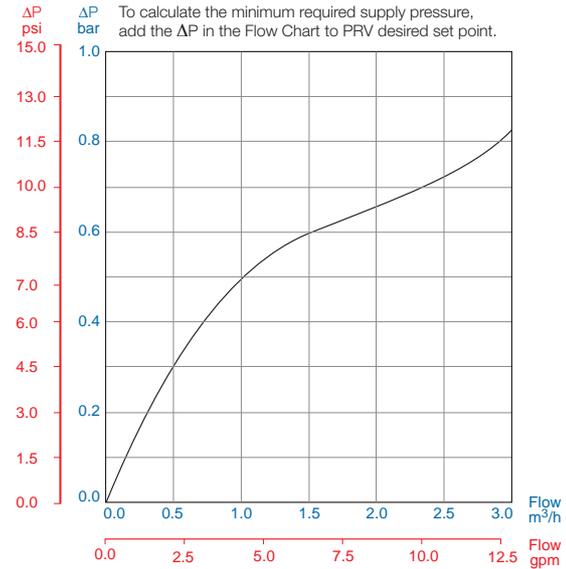
PRV Series

Pressure Reducing

Technical Specifications



Flow Chart required supply pressure above setting

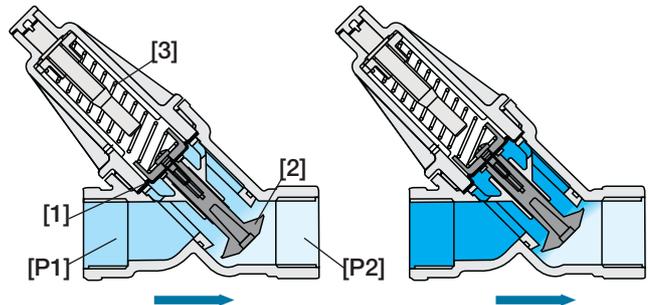


Technical Data

Size: 3/4"; DN20
End Connections: Threaded
 Inlet: Female BSP; NPT
 Outlet: Female BSP; NPT or Male BSPT; NPT
Flow Range: 0.2-5 m³/h; 0.9-22 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, Cover and Actuator Assembly: Glass-Filled Nylon
Diaphragm: NBR (Buna-N), Nylon fabric reinforced
Spring: Stainless Steel

Operation



The Upstream Pressure [P1] applies balanced opening and closing hydraulic forces under the Diaphragm [1] and above the Plug [2]. The 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, and reducing [P2] back to setting.

Setting Springs Selection Table

Setting Range bar; psi	Spring Color	Spring Name
0.5-1.2; 7-18	Yellow	A
0.8-2.5; 12-36	White	B
2.0-4.0; 29-58	Red	C
3.5-6.0; 50-87	Black	D

How to Order

For Ordering Please Specify:

- Adjustable Direct Acting Pressure Reducer 3/4", Female BSP Threads BERMAD Model: 3/4"-PRV-P-BP-FF-____*
- Adjustable Direct Acting Pressure Reducer 3/4", Female NPT Threads BERMAD Model: 3/4"-PRV-P-NP-FF-____*
- Adjustable Direct Acting Pressure Reducer 3/4", Male BSPT Outlet Thread BERMAD Model: 3/4"-PRV-P-BP-MF-____*
- Adjustable Direct Acting Pressure Reducer 3/4", Male NPT Outlet Thread BERMAD Model: 3/4"-PRV-P-NP-MF-____*

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



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