

Pressure Reducing Valve

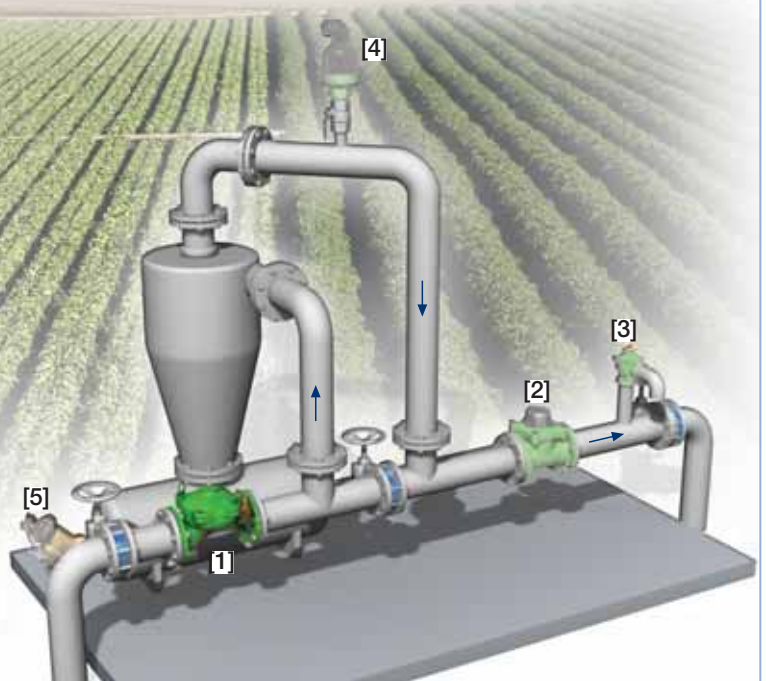
IR-420-R

The BERMAD Pressure Reducing Valve is a hydraulically operated, diaphragm actuated control valve that reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure.



Features and Benefits

- Hydraulic Pressure Control
 - ▢ Line pressure driven
 - ▢ Protects downstream systems
- Advanced Globe Hydro-Efficient Design
 - ▢ Unobstructed flow path
 - ▢ Single moving part
 - ▢ High flow capacity
- Fully Supported & Balanced Diaphragm
 - ▢ Requires low actuation pressure
 - ▢ Excellent low-flow regulation performance
 - ▢ Progressively restrains valve closing
 - ▢ Prevents diaphragm distortion
- User-Friendly Design
 - ▢ Easy pressure setting
 - ▢ Simple in-line inspection and service
 - ▢ Easy addition of control features

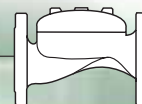


Typical Applications

- Pressure Reducing Stations
- Low Supplied Pressure Irrigation Systems

- [1] BERMAD Model IR-420-R protecting the System
- [2] BERMAD Water Meter Model WPH
- [3] BERMAD Relief Valve Model IR-43Q-R
- [4] BERMAD Air Valve Model ARC-A-P-I
- [5] BERMAD Sediment Tank Flashing Valve Model IR 310-B

BERMAD Irrigation



IR-420-R

For full technical details, refer to Engineering Section.

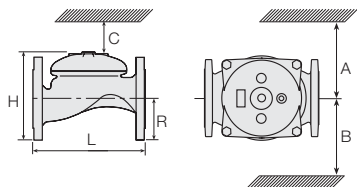
400 Series

Pressure Reducing

Technical Specifications

Dimensions and Weights

Size	DN Inch	80 3	100 4	150 6	200 8	250 10	300 12	350 14	400 16
L	mm inch	250 9.8	320 12.6	415 16.3	500 19.8	605 23.8	725 28.5	742 29.2	742 29.2
H	mm inch	210 8.3	242 9.5	345 13.6	430 16.9	460 18.1	635 25	655 25.8	965 38
C	mm inch	125 5	145 5.7	207 8.2	258 10.2	276 10.9	381 15	393 15.5	579 22.8
R	mm inch	100 3.9	112 4.4	140 5.5	170 6.7	202 8	242 9.5	260 10.2	300 11.8
A; B	mm inch	300 11.8	312 12.3	353 13.9	383 15.1	403 15.9	490 19.3	494 19.4	500 19.7
Weight	Kg lb.	19 41.9	28 61.7	68 149.9	125 275.6	140 308.6	290 639.3	358 789.2	377 831.1



Technical Data

Patterns and Sizes: Globe: 3-16"; DN80-400 Angle: 3-4"; DN80-100

End Connections:

Size		3"	4"	6"	8-16"
		DN80	DN100	DN150	DN200-400
Threaded	Globe	■			
	Angle	■			
Flanged	Globe	■	■	■	■
	Angle	■	■		
Grooved	Globe	■	■	■	
	Angle	■	■		

Pressure Rating: 16 bar; 232 psi

Operating Pressure Range: 0.5-16 bar; 7-232 psi

For lower pressure requirements, consult factory

Setting Range: 1-10 bar; 15-145 psi

Setting ranges vary according to specific pilot spring. Please consult factory.

Materials:

Body and Cover:

Polyester Coated Cast or (10"; DN250 and larger) Ductile Iron

Spring: Stainless Steel

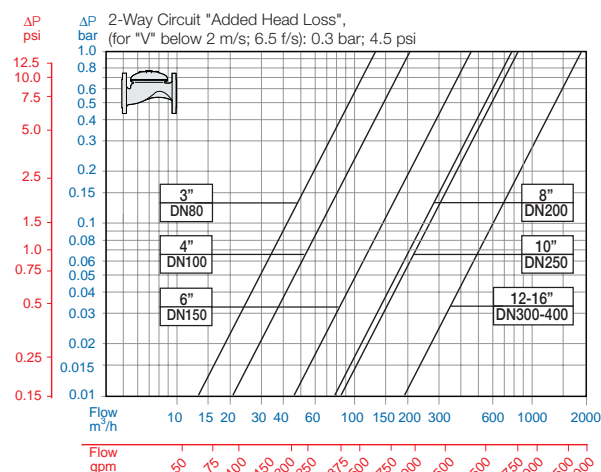
Diaphragm: Nylon fabric Reinforced NR with rugged insert

Bolts, Studs and Nuts: Zinc-Cobalt plated Steel

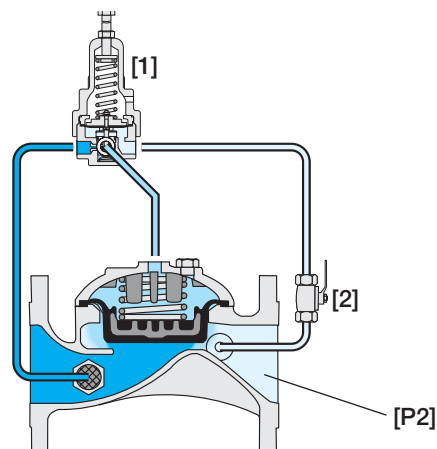
Control Accessories: Brass

Tubing and Fittings: Reinforced Plastic and Brass

Flow Chart



Operation



The Pressure Reducing Pilot [1] commands the main Valve to throttle closed should Downstream Pressure [P2] rise above setting, and to modulate open when it drops below setting. The downstream Cock Valve [2] enables manual closing.

How to Order

Please specify the requested valve in the following sequence: (for more options, refer to Ordering Guide.)

Sector	Size	Primary Feature	Additional Feature	Additional Feature	Pattern	Construction Materials	End Connections	Coating	Voltage -Main Valve Position	Tubing & Fittings	Additional Attributes
IR	3-16"	420	00	-	G	I	16	PG	-	PB	R
Other sizes available on request.											
Globe Angle (up to 4"; DN100)		G	ISO-16 ISO-10 IS 14 (ISO 10/4 Holes) ANSI-125 ANSI-150 JIS-10 BST-D Grooved (3-6"; DN80-150 only)		16	Plastic Tubing & Brass Fittings Copper Tubing & Brass Fittings		PB	Metal Control Accessories Large Control Filter Valve Position Indicator ⁽¹⁾ Flow Stem ⁽¹⁾ (1) Standard Irrigation Cover & Diaphragm are unfitted to Attributes I, M. Other attributes available on request.		R
		A			10			F			
					14			I			
					A1			M			
					A5						
Cast Iron (up to 8"; DN200) Ductile Iron (10"; DN250 & above)		I	J1								
		C	BD	VI							
Other end connections available on request											

(1) Standard Irrigation Cover & Diaphragm are unfitted to Attributes I, M.
Other attributes available on request.



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