

Pressure Reducing Valve

with Metal Accessories

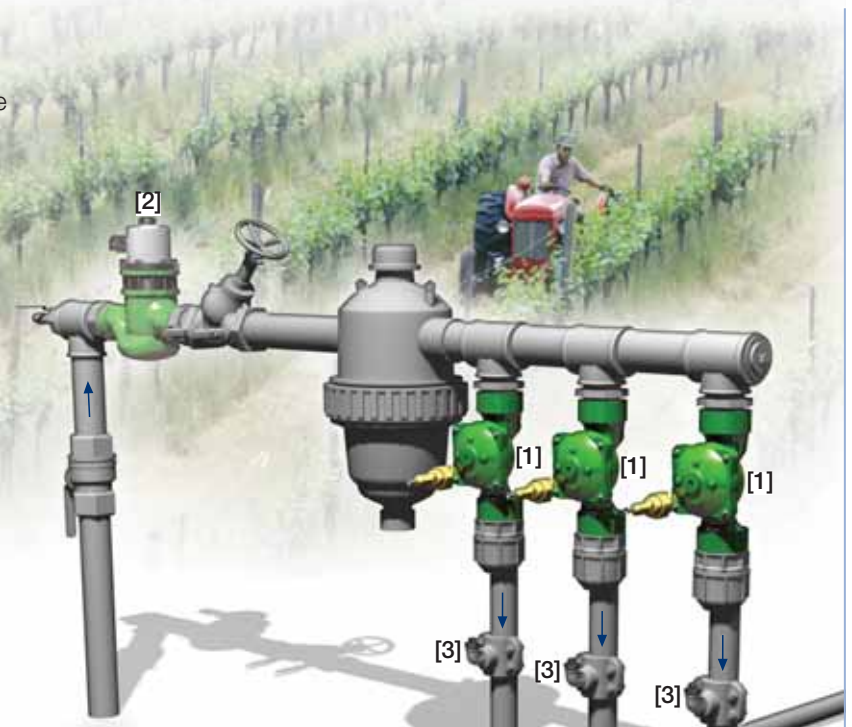
IR-420-bRZ

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



Features and Benefits

- Line Pressure Driven Pressure Reducing Valve
 - Protects downstream systems
- Pressure Reducing Servo Pilot Controlled
 - Dynamic integrated needle valve
 - Settable to 0.5 bar; 7 psi
 - Very low hysteresis
- Metal Control Accessories
 - Damage resistant
 - High pressure rating
- 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



Typical Applications

- Drip-Tape Systems
- Low Set Pressure Applications
- Pressure Reducing Stations
- Low Supplied Pressure Irrigation Systems

- [1] BERMAD Model IR-420-bRZ establishes reduced pressure zone protecting laterals and distribution line.
- [2] BERMAD Automatic Metering Valve, Model IR-900-D2
- [3] BERMAD Vacuum Breaker Model 1/2"-ARV

BERMAD Irrigation



IR-420-bRZ

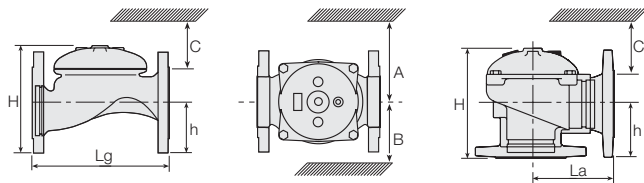
For full technical details, refer to Engineering Section.

400 Series Pressure Reducing Drip-Tape

Technical Specifications

Dimensions and Weights

Pattern	Globe						Angle						
	Connections	Threaded					Fl.	Threaded					Fl.
		Size	DN	40	50	65	80R	80	100	50	65	80R	80
	Inch	1 1/2"	2"	2 1/2"	3"R	3"	4"	2"	2 1/2"	3"R	3"	4"	
Lg	mm	153	180	210	210	255	320	N.A.	N.A.	N.A.	N.A.	N.A.	
	inch	6	7.1	8.3	8.3	10.0	12.6	N.A.	N.A.	N.A.	N.A.	N.A.	
La	mm	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	86	110	110	110	160	
	inch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	3.4	4.3	4.3	4.3	6.3	
H	mm	87	114	132	140	165	242	136	180	178	184	223	
	inch	3.4	4.5	5.2	5.5	6.5	9.5	5.4	7.1	7	7.2	8.8	
C	mm	52	68	80	84	100	145	82	108	107	110	134	
	inch	2	2.7	3.1	3.3	3.9	5.7	3.2	4.2	4.2	4.3	5.3	
h	mm	29	39	45	53	55	112	61	93	91	80	112	
	inch	1.1	1.5	1.8	2.1	2.2	4.4	2.4	3.7	3.6	3.1	4.4	
A; B	mm	130	130	130	140	175	312	130	130	140	175	312	
	inch	5	5	5	6	7	12.3	5.1	5.1	5.5	6.9	12.3	
Weight	Kg	2	4	5.7	5.8	13	28	4.4	5.8	7	11	26	
	lb.	4.4	8.8	12.6	12.8	28.7	61.7	9.7	12.8	15.4	24.3	57.3	



Technical Data

End connections:

Size		1 1/2"	2"	2 1/2"	3"R	3"	4"
		DN40	DN50	DN65	DN80R	DN80	DN100
Threaded	Globe	■	■	■	■	■	■
	Angle		■	■	■	■	■
Flanged	Globe		■	■	■	■	■
	Angle				■	■	■
Grooved	Globe		■			■	■
	Angle					■	■

Pressure Rating: 16 bar; 232 psi

Operating Pressure Range: 0.5-10 bar; 7-145 psi

For lower pressure requirements, consult factory

Setting Range: 0.5-1.7 bar; 7-25 psi

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

How to Order

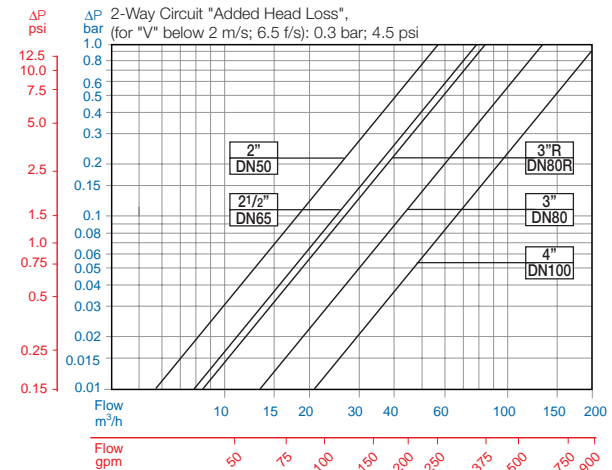
Please specify the requested valve in the following sequence: (for more options, refer to Ordering Guide.)

Sector	Size	Primary Feature	Additional Feature	Additional Feature	Pattern	Construction Materials	End Connections	Coating	Voltage -Main Valve Position	Tubing & Fittings	Additional Attributes
IR	1 1/2"-4" <small>Other sizes available on request.</small>	420	00	-	G	I	BP	PG	-	PP	bRZ
Globe		G	BSP		BP	Plastic Tubing & Fittings		PP	Servo		b
Angle		A	NPT		NP	Plastic Tubing & Brass Fittings		PB	Metal Control Accessories		R
			ISO-16		16				Manual Selector		Z
			ISO-10		10				Valve Position Indicator ⁽¹⁾		I
			IS 14 (ISO 10/4 Holes)		14				Flow Stem ⁽¹⁾		M
			ANSI-125		A1						
			JIS-10		J1						
			BST-D		BD						
			Grooved		VI						

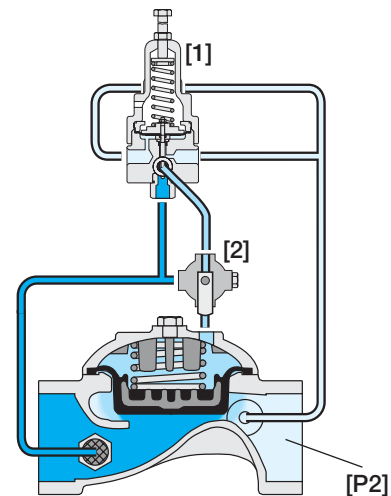
For available end connections/sizes, see End Connections Table above.

(1) Standard Irrigation Cover & Diaphragm are unfitted to Attributes I, M. Other additional attributes are optional. Please consult full-stop.

Flow Chart



Operation



The Pressure Reducing Servo Pilot [1] commands the main Valve to throttle closed preventing downstream pressure [P2] from rising above pilot setting, and to modulate open when [P2] drops below pilot setting. The Manual selector [2] enables local manual closing.



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