

## Flow Control and Pressure Reducing Valve

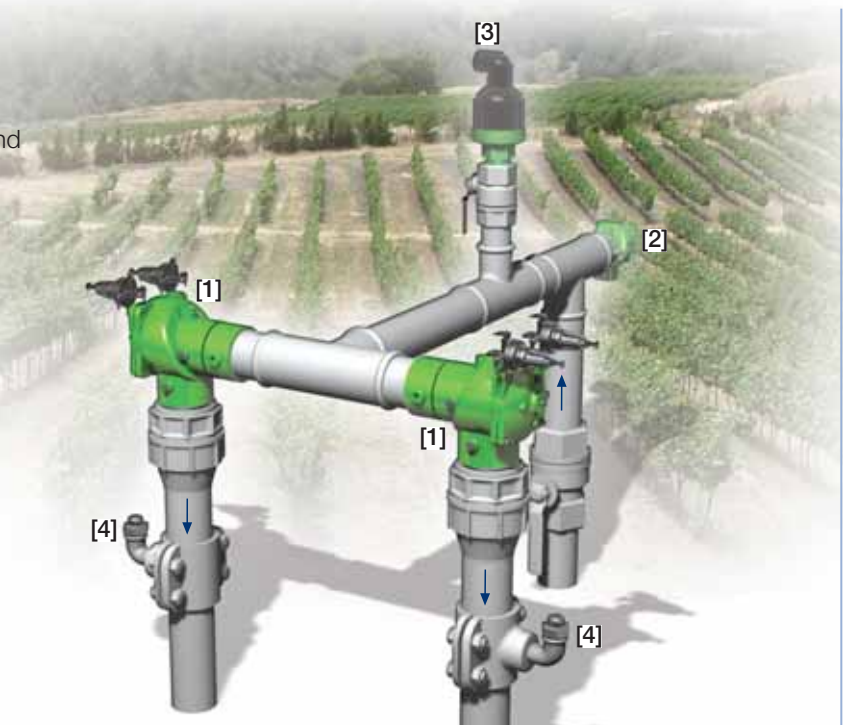
### IR-472-bKUZ

The BERMAD Model IR-472-bKUZ is a hydraulically operated, diaphragm actuated control valve that limits demand and reduces downstream pressure to constant preset maximum values.



### Features and Benefits

- Line Pressure Driven, Hydraulically Controlled
  - Limits fill-up rate and consumer over-demand
  - Protects downstream system
- 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
- Hydraulic Flow Sensor (upstream installation)
  - No moving parts
  - No need for flow straightening
- User-Friendly Design
  - Easy pressure setting
  - Simple in-line inspection and service



### Typical Applications

- Line Fill-Up Control Solutions
- Pressure Reducing Systems
- Multiple Independent Consumer Systems

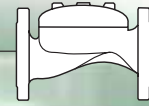
[1] BERMAD Model IR-472-bKUZ limits over-demand, and controls laterals and distribution line fill-up, while reducing pressure.

[2] BERMAD Relief Valve Model IR-43Q-R

[3] BERMAD Air Valve Model ARA-A-I-P

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

# BERMAD Irrigation



## IR-472-bKUZ

For full technical details, refer to Engineering Section.

## 400 Series

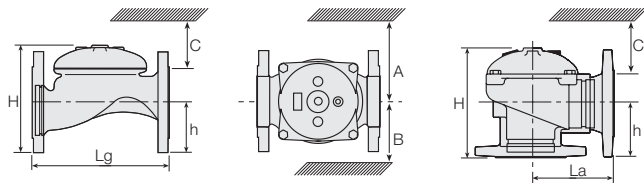
Flow Control & Pressure Reducing

### Technical Specifications

#### Dimensions and Weights

Pattern	Globe						Angle					
	Threaded						Fl.					
Connections	Threaded						Fl.					
Size	DN	1½"	2"	2½"	3"R	3"	4"	2"	2½"	3"R	3"	4"
Lg	mm inch	153 6	180 7.1	210 8.3	210 8.3	255 10.0	320 12.6	N.A.	N.A.	N.A.	N.A.	N.A.
La	mm inch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	86 3.4	110 4.3	110 4.3	110 4.3	160 6.3
H	mm inch	87 3.4	114 4.5	132 5.2	140 5.5	165 6.5	242 9.5	136 5.4	180 7.1	178 7	184 7.2	223 8.8
C	mm inch	52 2	68 2.7	80 3.1	84 3.3	100 3.9	145 5.7	82 3.2	108 4.2	107 4.2	110 4.3	134 5.3
h	mm inch	29 1.1	39 1.5	45 1.8	53 2.1	55 2.2	112 4.4	61 2.4	93 3.7	91 3.6	80 3.1	112 4.4
A; B	mm inch	130 5	130 5	130 5	140 6	175 7	312 12.3	130 5.1	130 5.1	140 5.5	175 6.9	312 12.3
Weight	Kg lb.	2 4.4	4 8.8	5.7 12.6	5.8 12.8	13 28.7	28 61.7	4.4 9.7	5.8 12.8	7 15.4	11 24.3	26 57.3

The orifice assembly adds to valve length.



### Technical Data

End connections:

Size		1½"	2"	2½"	3"R	3"	4"
		DN40	DN50	DN65	DN80R	DN80	DN100
Threaded	Globe	■	■	■	■	■	■
	Angle						
Flanged	Globe		■	■	■	■	■
	Angle						
Grooved	Globe		■				
	Angle						

Pressure Rating: 10 bar; 145 psi

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

For lower pressure requirements, consult factory

Setting Range: 1-7 bar; 15-100 psi

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

Flow Setting Range: ±20% from valve predetermined flow

Orifice diameter is calculated in accordance with desired P at predetermined flow.

Although the standard calculated P is 0.4 bar; 5.5 psi, the actual head loss is 0.2 bar; 2.8 psi.

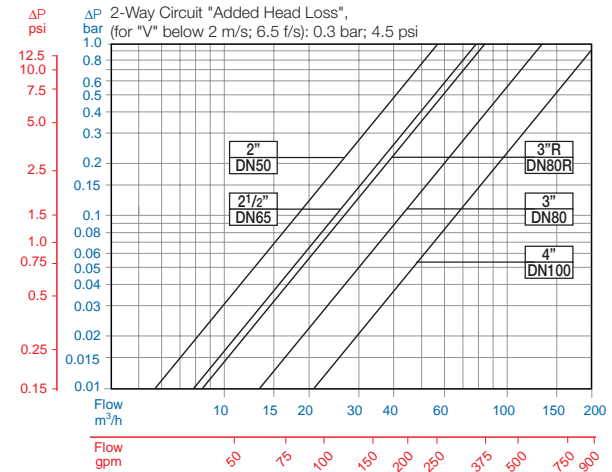
### How to Order

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

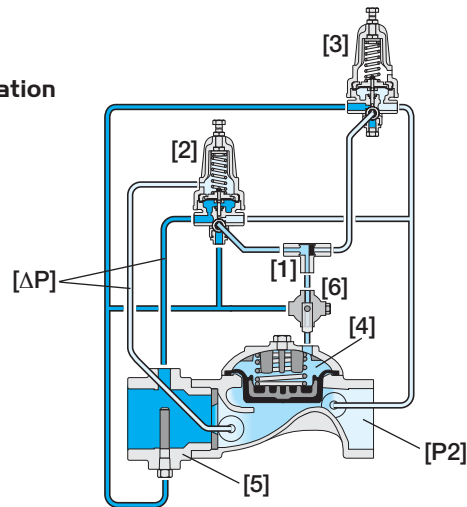
Sector	Size	Primary Feature	Additional Feature	Additional Feature	Pattern	Construction Materials	End Connections	Coating	Voltage -Main Valve Position	Tubing & Fittings	Additional Attributes
IR	1½"-4" <small>Other sizes available on request.</small>	472	00	-	G	I	BP	PG	-	PP	bKUZ
Globe		G	BSP		BP	Plastic Tubing & Fittings		PP	Servo		b
Angle		A	NPT		NP	Plastic Tubing & Brass Fittings		PB	Plastic Control Accessories		K
			ISO-16		16				Orifice Assembly		U
			ISO-10		10				Manual Selector		Z
			IS 14 (ISO 10/4 Holes)		14				Valve Position Indicator <sup>(1)</sup>		I
			ANSI-125		A1				Flow Stem <sup>(1)</sup>		M
			JIS-10		J1						
			BST-D		BD						
			Grooved		VI						

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

### Flow Chart



### Operation



The Shuttle Valve [1] hydraulically connects the Flow Pilot Valve (FP) [2] or the Pressure Reducing Pilot (PRP) [3] to the Valve Control Chamber [4]. Pressure Differential  $\Delta P$  across the Orifice Assembly [5] is in direct proportion to demand. The FP, continuously sensing  $\Delta P$ , commands the Valve to throttle closed should demand rise above setting. The PRP commands the AMV to reduce Downstream Pressure [P2] to pilot setting. The Manual Selector [6] enables local Manual closing.



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