



## Flow Control and Pressure Reducing Valve

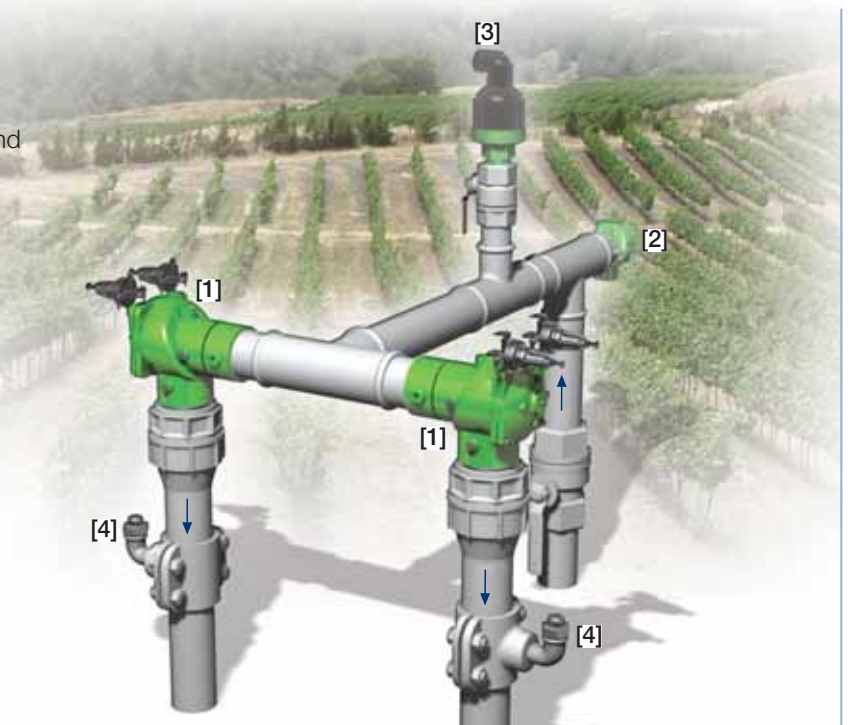
### IR-472-bKUZ

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

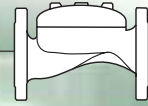
[1] BERMAD Model IR-472-bKUZ limits over-demand, and controls laterals and distribution line fill-up, while reducing pressure.

[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

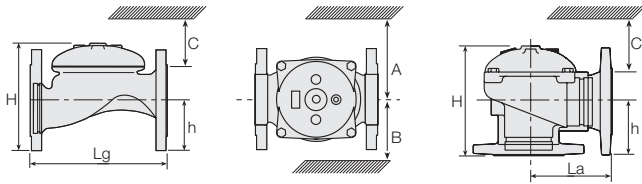
Flow Control & Pressure Reducing

### Technical Specifications

#### Dimensions and Weights

Pattern	Globe						Angle					
	Connections	Threaded					Fl.	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	110	110	110	160
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.

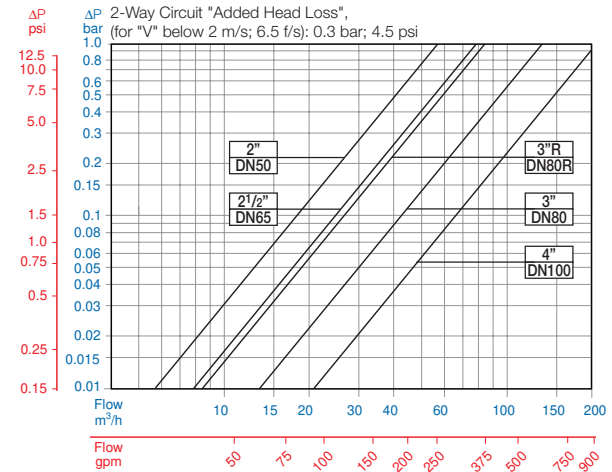
### How to Order

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

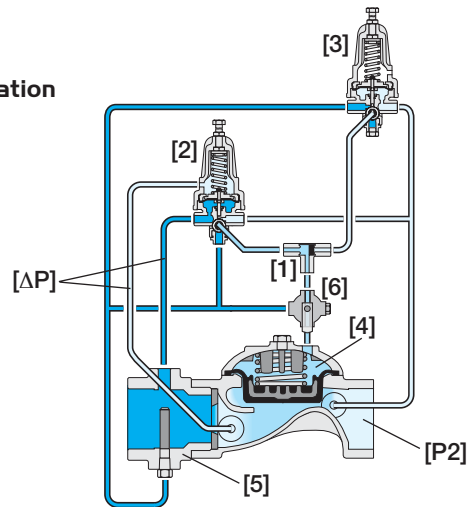
Sector	Size	Primary Feature	Additional Feature	Additional Feature	Pattern	Construction Materials	End Connections	Coating	Voltage -Main Valve Position	Tubing & Fittings	Additional Attributes
IR	1½"-4" <small>Other sizes available on request.</small>	472	00	-	G	I	BP	PG	-	PP	bKUZ
Globe		G	BSP		BP	Plastic 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 [ΔP] across the Orifice Assembly [5] is in direct proportion to demand. The FP, continuously sensing [ΔP], 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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