

Pressure Sustaining Valve

with Solenoid Control

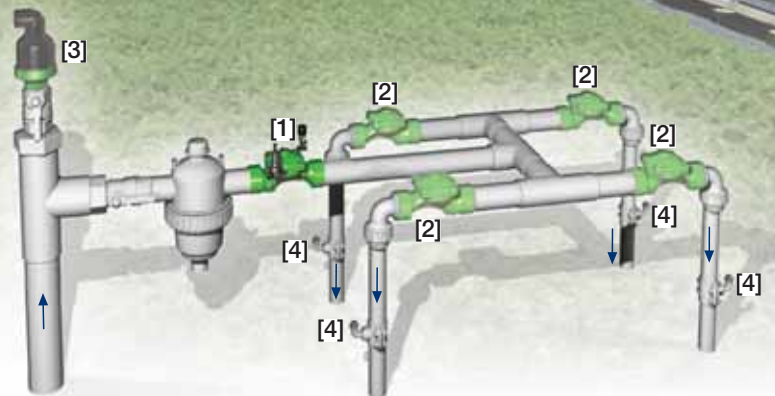
IR-430-55-KX

The BERMAD Model IR-430-55-KX is a hydraulically operated, diaphragm actuated control valve that sustains minimum preset upstream (back) pressure and opens fully when line pressure is in excess of setting. It either opens or shuts in response to an electric signal.



Features and Benefits

- Line Pressure Driven, Electrically Controlled On/Off
 - Prioritizes pressure zones & controls system fill-up
 - Sustains upstream line pressure
 - Opens fully upon line pressure rise
- 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 performances
 - Progressively restrains valve closing
 - Prevents diaphragm distortion
- User-Friendly Design
 - Easy pressure setting
 - Simple in-line inspection and service

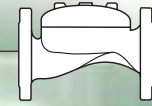


Typical Applications

- Computerized Irrigation Systems
- Line Fill-Up Control Solutions
- Distanced and/or Elevated Plots
- Infield Filters Backwash Pressure Sustaining
- Systems Subject to Varying Supply Pressure
- Distribution Centers

- [1] BERMAD Model IR-430-55-KX opens in response to electric signals, sustains supply system pressure preventing emptying, and controls laterals and distribution line fill-up.
- [2] BERMAD On/Off Control Valve Model IR-405-Z
- [3] BERMAD Air Valve Model ARA-A-P-P
- [4] BERMAD Vacuum Breaker Model 1/2"-ARV

BERMAD Irrigation



IR-430-55-KX

For full technical details, refer to Engineering Section.

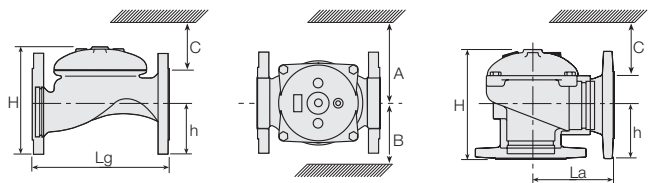
400 Series

Pressure Sustaining

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	100
	Inch	1½"	2"	2½"	3"R	3"	4"	2"	2½"	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		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.

Solenoid Voltage Range:

S-390 & S-400: 24 VAC, 24 & VDC

S-392 & S-402: 9-20 VDC, Latch

S-982 & S-985: 12-50 VDC, Latch

Other voltages available. For full electric data, refer to Accessories Section.

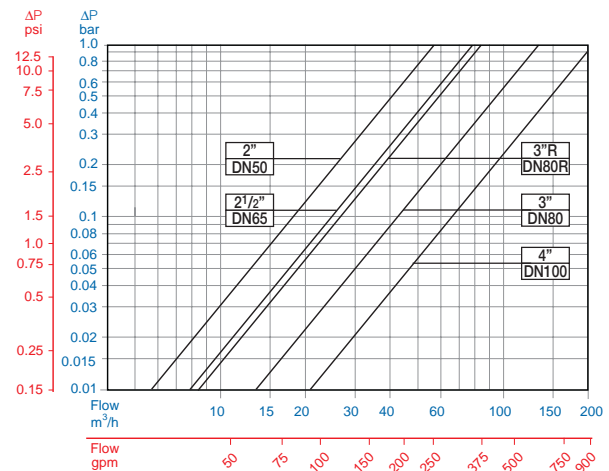
How to Order

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

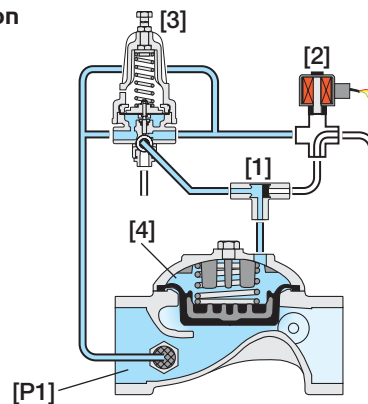
Sector	Size	Primary Feature	Additional Feature	Additional Feature	Pattern	Construction Materials	End Connections	Coating	Voltage -Main Valve Position	Tubing & Fittings	Additional Attributes
IR	1½"-4" <small>Other sizes available on request.</small>	430	55	-	G	I	BP	PG	4AC	PP	KX
Globe		G	BSP		BP	9VDC -	Latch	9DS	Plastic Tubing & Fittings	PP	
Angle		A	NPT		NP	12VDC-	Latch	1DS	Plastic Tubing & Brass Fittings	PB	
			ISO-16		16	24VDC-	N.C.	4DC	Plastic Control Accessories	K	
			ISO-10		10	24VDC-	N.O.	4DC	3-Way Control	X	
			IS 14 (ISO 10/4 Holes)		14	24VAC-	N.C.	4AC	Valve Position Indicator ⁽¹⁾	I	
			ANSI-125		A1	24VAC-	N.O.	4AO	Flow Stem ⁽¹⁾	M	
			JIS-10		J1	24VAC, Lightning Proof -	N.C.	4RC			
			BST-D		BD	24VAC, Lightning Proof -	N.O.	4RO			
			Grooved		VI						

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

Flow Chart



Operation



The Shuttle Valve [1] hydraulically connects the Solenoid [2] or the Pressure Sustaining Pilot (PSP) [3] to the Valve Chamber [4]. When the solenoid is closed, the PSP commands the Valve to throttle closed should Upstream Pressure [P1] drop below setting and to open fully when [P1] rises above setting. In response to an electric signal, the solenoid switches, directing line pressure through the shuttle valve into the control chamber, and thereby causing the Valve to shut. The solenoid also features local manual closing.



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