



Pressure Sustaining Valve

Normally Closed with Hydraulic Control

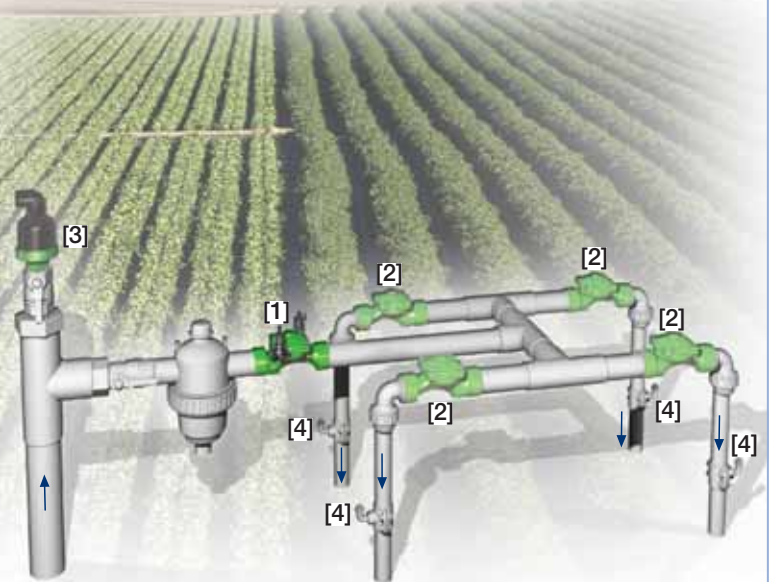
IR-430-54-KX

The BERMAD Model IR-430-54-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 is a Normally Closed valve, which opens in response to a remote pressure rise command and shuts in the absence of that command.



Features and Benefits

- Line Pressure Driven, Hydraulically Normally Closed
 - Closes upon control failure
 - Prioritizes pressure zones & controls system fill-up
 - Opens fully upon line pressure rise
 - Amplifies and relays weak remote command
- Advanced Globe Hydro-Efficient Design
 - Unobstructed flow path
 - Single moving part
 - High flow capacity
- Fully Supported & Balanced Diaphragm
 - Requires low actuation pressure
 - Excellent low regulation performances
 - Progressively restrains valve closing
 - Prevents diaphragm distortion
- User-Friendly Design
 - Easy pressure setting
 - Simple in-line inspection and service

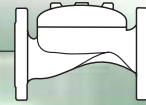


Typical Applications

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

- [1] BERMAD Model IR-430-54-KX opens upon pressure rise command, 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-430-54-KX

For full technical details, refer to Engineering Section.

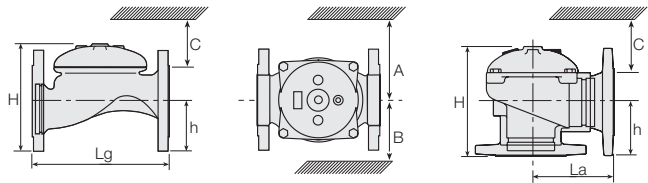
400 Series

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.

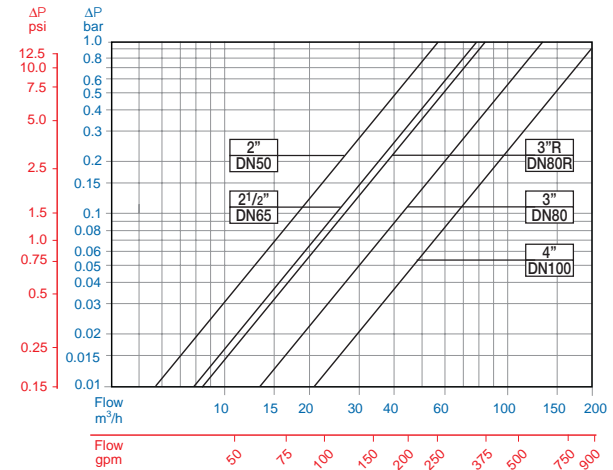
How to Order

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

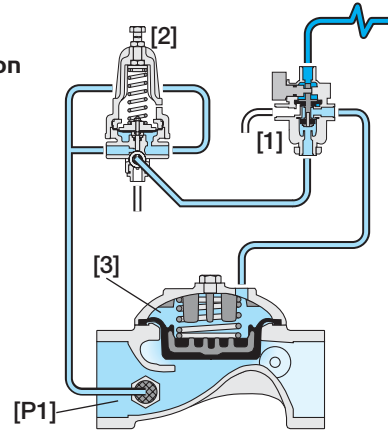
Sector	Size	Primary Feature	Additional Feature	Additional Feature	Pattern	Construction Materials	End Connections	Coating	Voltage -Main Valve Position	Tubing & Fittings	Additional Attributes
IR	1½"-4" <small>Other sizes available on request.</small>	430	54	-	G	I	BP	PG	-	PP	KX
Globe		G	BSP		BP	Plastic Tubing & Fittings		PP		Plastic Control Accessories	K
Angle		A	NPT		NP	Plastic Tubing & Brass Fittings		PB		3-Way Control	X
			ISO-16		16					Valve Position Indicator ⁽¹⁾	I
			ISO-10		10					Flow Stem ⁽¹⁾	M
			IS 14 (ISO 10/4 Holes)		14						
			ANSI-125		A1						
			JIS-10		J1						
			BST-D		BD						
			Grooved		VI						

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

Flow Chart



Operation



The 3-Way Hydraulic Relay Valve (3W-HRV) [1] hydraulically connects the Pressure Sustaining Pilot (PSP) [2] to the Valve Control Chamber [3]. The PSP commands the Valve to throttle closed should Upstream Pressure [P1] drop below setting and to open fully when [P1] rises above setting. The 3W-HRV switches upon pressure drop command, directing line pressure into the control chamber and thereby causing the main Valve to shut. The 3W-HRV also features local manual closing.



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