

Pressure Sustaining Valve

with Hydraulic Control

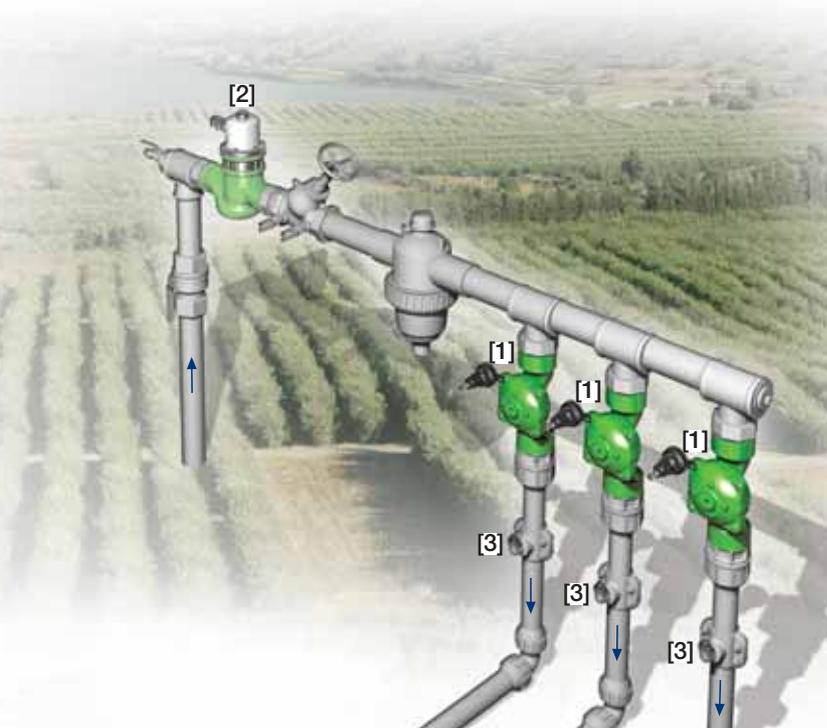
IR-430-50-KXZ

The BERMAD Pressure Sustaining Valve 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 a remote pressure command.



Features and Benefits

- Line Pressure Driven, Hydraulically Controlled On/Off
 - Prioritizes pressure zones
 - Controls system fill-up
 - 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 performance
 - Progressively restrains valve closing
 - Prevents diaphragm distortion
- User-Friendly Design
 - Easy pressure setting
 - Simple in-line inspection and service



Typical Applications

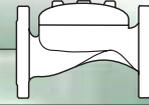
- Computerized Irrigation
- Line Fill-Up Control Solutions
- Line Emptying Prevention
- Infield Filters Backwash Pressure Sustaining
- Systems Subject to Varying Supply Pressure
- Distribution Centers

[1] BERMAD Model IR-430-50-KXZ opens upon pressure drop command, sustains supply system pressure, and controls laterals and distribution line fill-up.

[2] BERMAD Automatic Metering Valve Model IR-900-D0

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

BERMAD Irrigation



IR-430-50-KXZ

For full technical details, refer to Engineering Section.

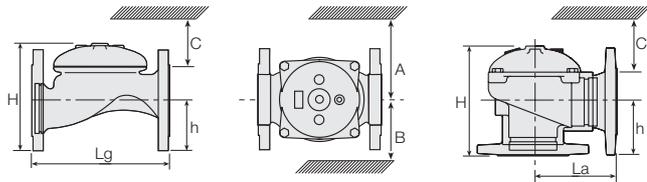
400 Series

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

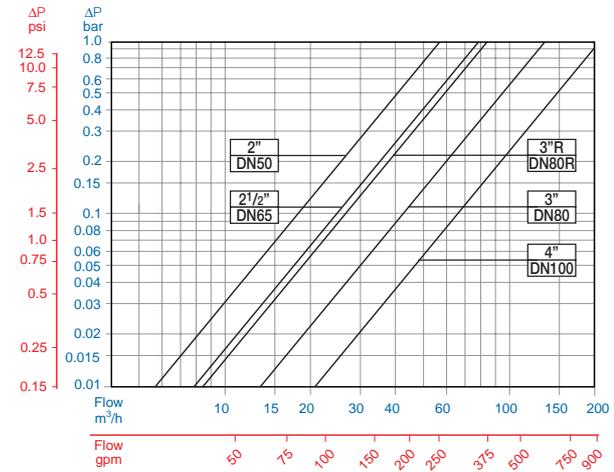
Operating Pressure Range: 0.5-10 bar; 7-145 psi

For lower pressure requirements, consult factory

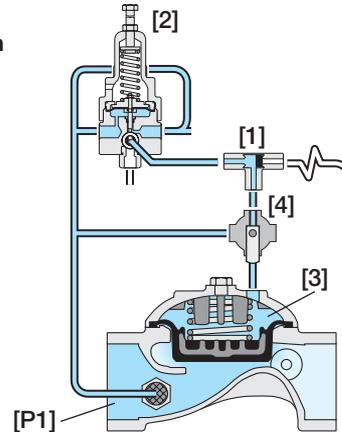
Setting Range: 1-7 bar; 15-100 psi

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

Flow Chart



Operation



The Shuttle Valve [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. Upon pressure rise command, the shuttle valve automatically switches, allowing pressurization of the control chamber, which causes the main Valve to shut. The Manual Selector [4] enables local manual closing.

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	50	-	G	I	BP	PG	-	PP	KXZ
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					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.



info@bermad.com • www.bermad.com

The information herein is subject to change without notice. BERMAD shall not be held liable for any errors. All rights reserved. © Copyright by BERMAD.

PC4AE30-50KXZ 05