

Hydraulic Control Valve

Normally Closed with Hydraulic Control

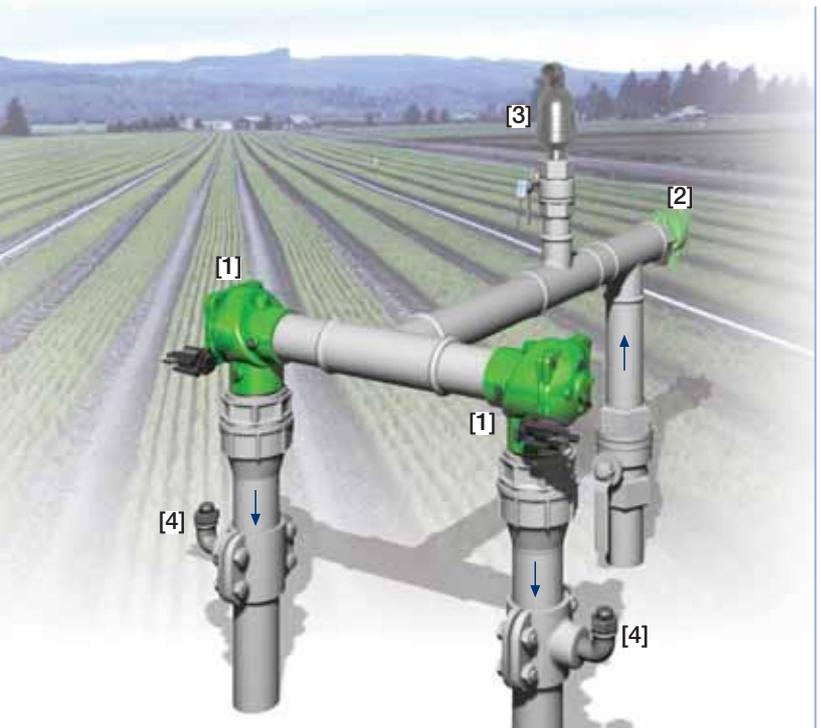
IR-405-54-KX

The BERMAD Normally Closed Control Valve with Hydraulic Control is a hydraulically operated, diaphragm actuated control valve. The BERMAD Model IR-405-54-KX is a Normally Closed valve, which opens in response to a pressure rise command and shuts in the absence of that command.



Features and Benefits

- Hydraulically Controlled, Normally Closed Valve
 - Line pressure driven
 - Closes upon control failure
 - Amplifies and relays weak remote command
 - Hydraulically controlled On/Off
- Advanced Globe Hydro-Efficient Design
 - Unobstructed flow path
 - Single moving part
 - High flow capacity
- Fully Supported & Balanced Diaphragm
 - Requires low opening and actuation pressure
 - Progressively restrains valve closing
 - Prevents diaphragm distortion
- User-Friendly Design
 - Simple in-line inspection
 - Easy addition of control features

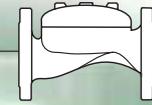


Typical Applications

- Computerized Irrigation Systems
- Remote/Elevated Systems
- Distribution Centers
- Low Supplied Pressure Irrigation Systems

- [1] BERMAD Model IR-405-54-KX opens upon pressure rise command.
- [2] BERMAD Relief Valve Model IR-43Q-K
- [3] BERMAD Air Valve Model ARA-A-P-P
- [4] BERMAD Vacuum Breaker Model 1/2"-ARV

BERMAD Irrigation



400 Series

On/Off Control

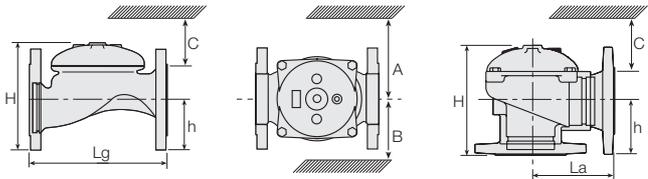
IR-405-54-KX

For full technical details, refer to Engineering Section.

Technical Specifications

Dimensions and Weights

Pattern	Globe						Angle					
	Threaded						Fl.					
Connections	Threaded						Fl.					
Size	DN	40	50	65	80R	80	100	50	65	80R	80	100
	Inch	1½"	2"	2½"	3"	3"	4"	2"	2½"	3"	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:

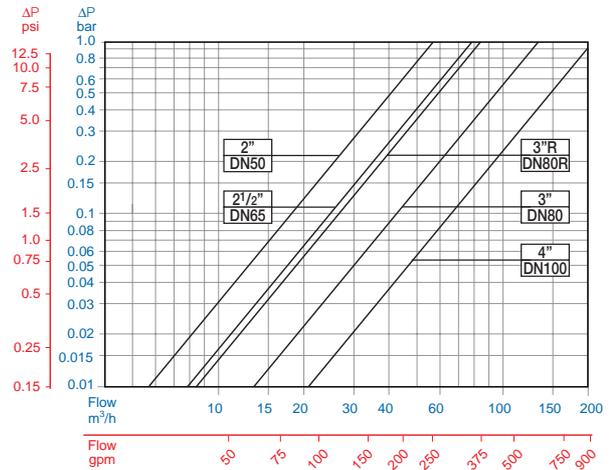
Size		1½"	2"	2½"	3"	3"	4"
		DN40	DN50	DN65	DN80R	DN80	DN100
Threaded	Globe	■	■	■	■	■	■
	Angle	■	■	■	■	■	■
Flanged	Globe	■	■	■	■	■	■
	Angle	■	■	■	■	■	■
Grooved	Globe	■	■	■	■	■	■
	Angle	■	■	■	■	■	■

Pressure Rating: 16 bar; 232 psi

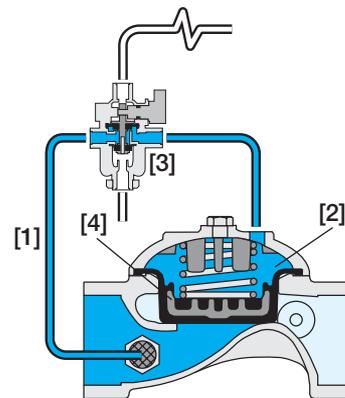
Operating Pressure Range: 0.5-16 bar; 7-232 psi

For lower pressure requirements, consult factory

Flow Chart



Operation



Line Pressure [1] is applied to the Control Chamber [2] through the held open, 3-Way Hydraulic Relay Valve (3W-HRV) [3]. This creates superior closing force that moves the Diaphragm Assembly [4] to a closed position. Upon pressure rise command, the 3W-HRV switches, releasing pressure from the control chamber and thereby opening the main Valve. The 3W-HRV also features local manual opening.

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>	405	54	-	G	I	BP	PG	-	PP	KX
Globe		G	ISO-16		16	Plastic Tubing & Fittings		PP		Plastic Control Accessories	K
Angle		A	ISO-10		10	Plastic Tubing & Brass Fittings		PB		3-Way Control	X
			IS 14 (ISO 10/4 Holes)		14					Valve Position Indicator ⁽¹⁾	I
			ANSI-125		A1					Flow Stem ⁽¹⁾	M
			JIS-10		J1						
			BST-D		BD						
			Grooved		VI						

(1) Standard Irrigation Cover & Diaphragm are unfitted to Attributes I, M.
Other additional attributes are optional. Please consult full-stop.



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