



IR-400 Series

The IR-400 Series Valves are virtually free of the typical limitations associated with other diaphragm single chambered valves.

The body design includes a full bore seat with unobstructed flow path. The internal design is using advanced rubber-based materials to achieve a solid, one piece elastomeric assembly including a flexible diaphragm, vulcanized with a rugged radial seal Disc. The diaphragm is carefully balanced and peripherally supported to avoid distortion and to protect the elastomer, resulting in long-life and controlled actuation even under harsh conditions. One diaphragm and spring fully meet the valve's operating pressure range requirements.

The IR-400 Series Valves are available in diameter sizes from 1"-16"; DN25 - DN400.



Features and Benefits

- Hydraulic Control Valve
 - Line pressure driven
 - 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
- Distribution Centers
- LPS - Low Pressure Systems
- Level Control Valves
- Filter Stations



Technical Specifications

Connections Standard:

Flanged: ISO 7005-2 (PN10 & 16)

Threaded: BSP; NPT

Grooved: ANSI C606

Operating Pressure Ranges:

IR-400: 0.5-16 bar
For lower pressure requirements, consult factory

GR-400: 0.5-10 bar

Temperature: Water up to 60°C

Standard Materials:

Castings & Forgings:

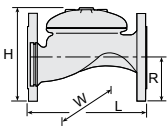
- Cast Iron to EN 1561
- Ductile Iron to EN 1563
- Brass

Elastomers: NR to EN 681-1

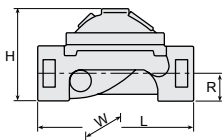
Coatings: Electrostatic Powder Coating Polyester

Dimensions & Weights

Globe Pattern

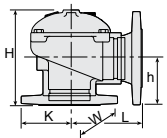


Connection Type	Flange													
	Size	DN	50	65	80R	80	100	125	150	200	250	300	350	400
		inch	2	2½	3R	3	4	5	6	8	10	12	14	16
L			205	205	210	250	320	320	415	500	605	725	742	741
H			155	178	200	210	242	254	345	430	460	635	655	694
W			155	178	200	200	223	197	306	365	405	580	587	587
R			78	89	100	100	112	127	140	170	202	242	260	300
Weight (Kg)			9	10.5	12.1	19	28	33	68	125	140	290	358	377



Connection Type	Threaded						Grooved					
	Size	DN	25	40	50	65	80R	80	50	80	100	150
		inch	1	1½	2	2½	3R	3	2	3	4	6
L			115	153	180	210	210	255	205	250	320	415
H			68	87	114	132	140	165	108	155	191	302
W			71	98	119	129	129	170	119	170	204	306
R			34	29	39	45	53	55	31	46	61	85
Weight (Kg)			1.1	2	4	5.7	5.8	13	5	10.6	16.2	49

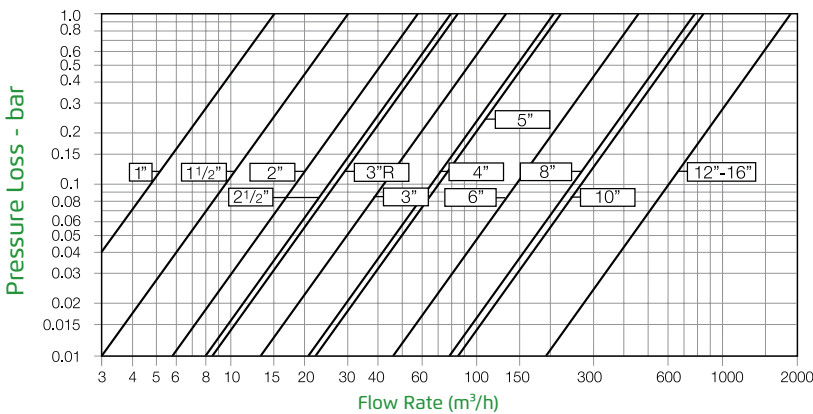
Angle Pattern



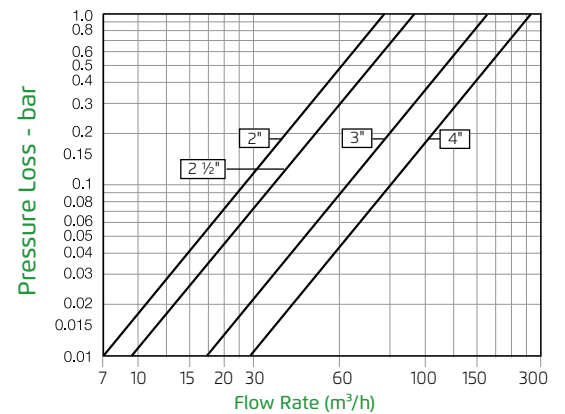
Connection Type	Threaded				Grooved		Flanged				
	Size	DN	50	65	80R	80	80	100	50	80	100
		inch	2	2½	3R	3	3	6	2	3	4
L			86	110	110	110	120	160	121	153	160
H			136	180	178	184	194	223	160	205	223
W			119	131	131	170	170	204	155	200	223
h			61	93	91	80	90	112	83	101	112
K			56	66	66	55	45	58	78	100	112
Weight (Kg)			4.4	5.8	7	11	10	16	9	17	26

Globe Pattern

2-Way circuit "Added Head Loss" (for "V" below 2 m/s; 0.3 bar)



Angle Pattern



Size	DN	25	40	50	50	65	65	80	80	100	100	150	200	250	300	350	400
	Inch	1	1½	2	2	2½	2½	3	3	4	4	6	8	10	12	14	16
Pattern		G	G	G	A	G	A	G	A	G	A	G	G	G	G	G	G
KV		13	57	57	71	78	88	136	152	204	225	458	781	829	1,932	1,932	1,932





IR	Code
Irrigation	IR

Size		
1"	DN25	
1 1/2"	DN40	
2"	DN50	
2 1/2"	DN65	
3"R	DN80R	
3"	DN80	
4"	DN100	
5" R	DN125R	
6"	DN150	
8"	DN200	
10"	DN250	Ductile Iron
12"	DN300	
14"	DN350	
16"	DN400	

Primary Features	Code
Basic Valve	405
Solenoid Controlled Valve	410
Electronic Control Valve	418
Pressure Reducing Valve	420
Pressure Reducing & Sustaining Valve	423
Pressure Sustaining Valve	430
Surge Anticipating Valve	435
Differential Pressure Sustaining Valve	436
Quick Pressure Relief Valve	43Q
Level Control Valve	450
Level Control & Pressure Sustaining Valve	453
Level & Flow Control Valve	457
Flow Control Valve	470
Flow Control & Pressure Reducing Control Valve	472
Flow Control & Pressure Sustaining Control Valve	473
Flow Control, Pressure Reducing & Sustaining Valve	475

Other primary features available on request.

Additional Features (Multiple Choices Permitted)	Code	
No Additional Feature	00	
Closing and Opening-Speed-Control	03	
Accelerated Closing	04	
Hydraulic Override	09	
Electronic Control	18	
Check Feature	20	
Solenoid Controlled & Check Feature	25	
Relief Override	3Q	
Electrically Selected Multi-Level Setting	45	
Downstream Over Pressure Guard	48	
Closing Surge Prevention	49	
N.O. Hydraulic Remote Control	50	
N.C With Adjustable Hydraulic Relay	54X	
N.C. with Hydraulic Relay	54	
Solenoid Controlled	55	
Electric Override	59	
Modulating Horizontal Float	60	
Bi-Level Electric Float	65	
Bi-Level Vertical Float	66	
Modulating Vertical Float	67	
Altitude Pilot	80*	
Setting Range	2-6 meter; 7-20 feet Setting	M1
	2-14 meter; 7-46 feet Setting	M6
	5-22 meter; 17-72 feet Setting	M5
	15-35 meter; 49-115 feet Setting	M4
	25-70 meter; 82-230 feet Setting	M8

* Select Setting Range
Other additional features available on request.

Pattern	Code
Globe	G
Angle (2"-4")	A

Construction Materials	Code
Cast Iron (up to 8")	I
Ductile Iron (10" and above)	C

Other materials available on request.





End Connections		Code	
Threaded	BSP Female Threaded	1"-3"	BP
	NPT Female Threaded		NP
Flanged	ISO-10	2"-16"	10
	ISO-16		16
	IS 14 (ISO 10/4 Holes, 3")		14
	ANSI-125		A1
	ANSI-150		A5
	BST-D		BD
	JIS-10		J1
	ABNT-10		B1
ABNT-16	B6		
Grooved	ANSI C 606-81, Steel Pipe (Globe - 2", 3", 4", 6" & 8"; Angle - 3" & 4")	VI	

Other end connections available on request.

Coating	Code
Polyester Green RAL 6017	PG

Voltage-Main Valve Position (When Solenoid De-Energized)	Code
24VAC, with Diode (D) - Normally Closed	4AC
24VAC, with Diode (D) - Normally Open	4AO
24VAC - Last Position	4AP
24VAC, with Ring (R) - Normally Closed	4RC
24VAC, with Ring (R) - Normally Open	4RO
24VDC - Normally Closed	4DC
24VDC - Normally Open	4DO
24VDC - Last Position	4DP
12VDC - Normally Closed	1DC
12VDC - Normally Open	1DO
12VDC - Last Position	1DP
12VDC - Latch Solenoid S-985 (3 Leads)	1DS
12VDC - Latch Solenoid S-982 (2 Leads)	2DS
9VDC - Latch Solenoid	9DS

Other electrical ratings available on request.

Tubing & Fittings	Code
Plastic Tubing & Fittings	PP
Plastic Reinforced Tubing & Brass Fittings	PB
Copper Tubing & Brass Fittings	CB

Additional Attributes Unlimited Selection	Code
Servo (2/3-Way Control Loop)	b
3-Way Control Loop	X
Plastic Control Accessories	K
Metal Control Accessories	R
External Control Pressure	e
EPDM Elastomers Seals & Diaphragm	E1
Large Control Filter	F
Valve Position Indicator *	I
Flow Stem *	M
Electric Limit Switch *	S
Orifice Assembly	U
Paddle Flow Control Pilot (1/2" Upstream Port)	V
Manual Selector	Z
Low Preset Pressure (below 2 bar)	2
High Upstream Pressure (above 10 bar)	3
Plastic Pressure Test Point	5
Pressure Gauge	6
1/2" Anti Vacuum at Valve Downstream	7

* Standard Irrigation Cover & Diaphragm are not suitable for Attributes I, M, S.

Other additional attributes are optional.

Please consult Customer Service for further information.