

Hydraulic Control Valve

Normally Closed with Hydraulic Control

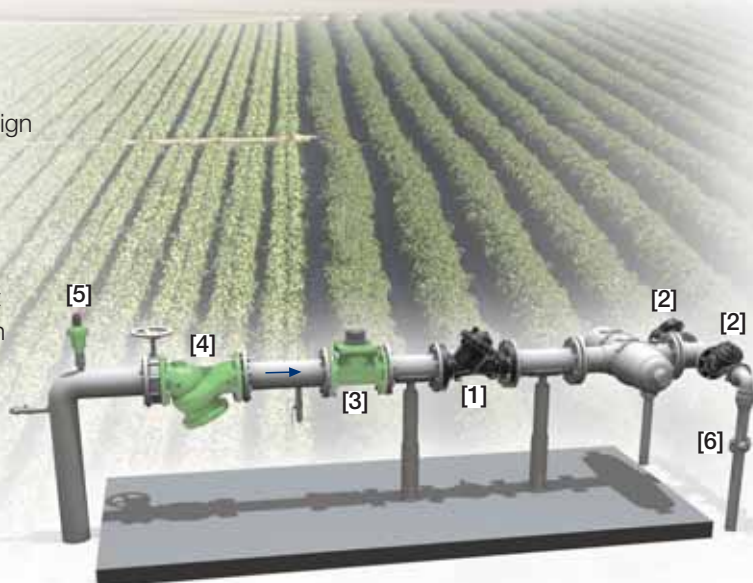
IR-105-54-X

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



Features and Benefits

- Hydraulically Controlled, Normally Closed Valve
 - Closes upon control failure
 - Amplifies and relays weak remote command
- Engineered Plastic Valve with Industrial Grade Design
 - Adaptable on-site to a wide range of end connection sizes and types
 - Articulated flange connections eliminate mechanical and hydraulic stresses
 - Highly durable, chemical and cavitation resistant
- hYflow 'Y' Valve Body with "Look Through" Design
 - Ultra-high flow capacity - Low pressure loss
- Unitized Flexible Super Travel (FST) Diaphragm and Guided Plug
 - Smooth closing
 - Requires low actuation pressure
 - Prevents diaphragm erosion and distortion
- User-Friendly Design
 - Simple in-line inspection and service

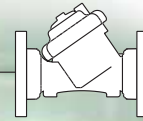


Typical Applications

- Computerized Irrigation Systems
- Remote and/or Elevated Systems
- Distribution Centers
- Low Supplied Pressure Irrigation Systems
- Energy Saving Irrigation Systems

- [1] BERMAD Model IR-105-54-X opens upon pressure rise command.
- [2] BERMAD On/Off Valve Model IR-105-Z
- [3] BERMAD Water Meter Model WPH
- [4] BERMAD Strainer Model 70F
- [5] BERMAD Air Valve Model ARC-A-I-I
- [6] BERMAD Vacuum Breaker Model 1/2" - ARV

BERMAD Irrigation



IR-105-54-X

For full technical details, refer to Engineering Section.

100 Series hYflow

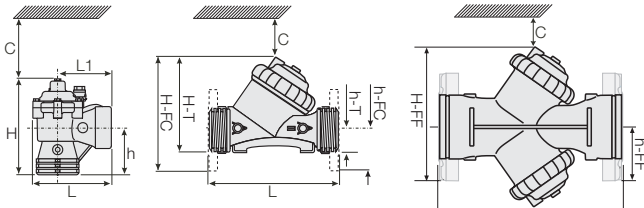
On/Off Control

Technical Specifications

Dimensions and Weights

Pattern	Size	Angle		Y (Oblique)				Y "Boxer"
		80-T ⁽¹⁾ 3-T ⁽¹⁾	80-T ⁽¹⁾ 3-T ⁽¹⁾	80-FC ⁽²⁾ 3-FC ⁽²⁾	80L-FC ⁽²⁾ 3L-FC ⁽²⁾	100-FC ⁽²⁾ 4-FC ⁽²⁾	150-FF ⁽³⁾ 6-FF ⁽³⁾	
L (L1)	mm	187 (130)	298	308	310	350	480	
	inch	7.4 (5.1)	11.7	12.1	12.2	13.8	18.9	
H (Hf)	mm	235 (245)	180 (195)	240 (255)	280	294	285	
	inch	9.3 (9.6)	7.1 (7.7)	9.4 (10)	11	11.6	11.2	
C	mm	53	53	600	600	600	600	
	inch	2.1	2.1	4	4	23.6	23.6	
h	mm	117	50	100	100	112	145	
	inch	4.6	2	3.9	3.9	4.4	5.7	
Weight	Kg	1.6	1.6	4.4	5.9	7.6	12.5	
	lb.	3.5	3.5	9.7	13	16.7	27.6	

(1) "T" = Threaded end connections (2) "FC" = Flanged, Corona (Metal) end connections
(3) "FF" = Flanged, Universal Plastic end connections



Technical Data

Sizes: 3, 3L, 4 & 6"; DN80, 80L, 100 & 150

Patterns:

Oblique: 3, 3L, 4 & 6"; DN80, 80L, 100 & 150

Angle: 3"; DN80

End Connections:

Threaded: 3 & 3"L; DN80 & 80L

Flanged: 3, 3L, 4 & 6"; DN80, 80L, 100 & 150

Pressure Rating: 10 bar; 145 psi

Operating Pressure Range: 0.35-10 bar; 5-145 psi

Materials:

Body, Cover and Plug: Glass-Filled Nylon

Diaphragm: NR, Nylon fabric reinforced

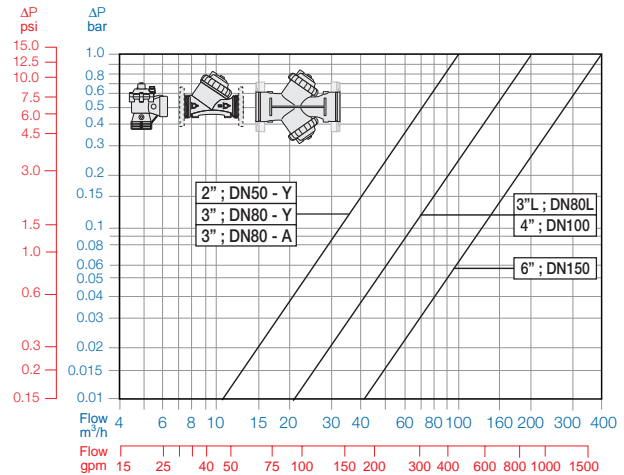
Seals: NR

Spring: Stainless Steel

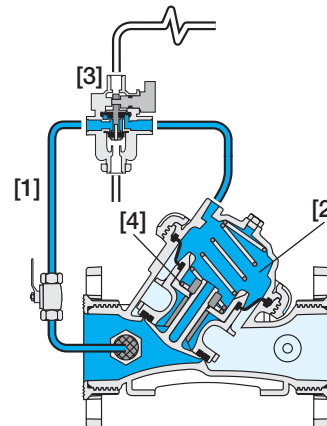
Control Accessories: Plastic

Tubing and Fittings: Plastic

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] toward a closed position. Upon pressure rise command, the 3W-HRV releases pressure from the control chamber, thereby opening the valve.

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	Pattern	Construction Materials	End Connections	Control Type	Voltage - Main Valve Position	Additional Attributes
IR	3-6" <small>Other sizes available on request.</small>	105 <small>Oblique Angle (3"; DN80 Only)</small>	54 <small>Y A</small>	Y	P <small>Threaded BSP (Female) Threaded NPT (Female) Plastic Flanges* Metal Flanges* ("Corona") Grooved (6"; DN150 Only)</small>	FF <small>BP NP FF CC VI</small>	3W <small>3-Way Control</small>	- <small>Other attributes available on request</small>	X

* Comply to: ISO PN10, ANSI #125/150, Jis K-10, BS-D



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