

Pressure Sustaining Valve

Normally Closed with Hydraulic Control

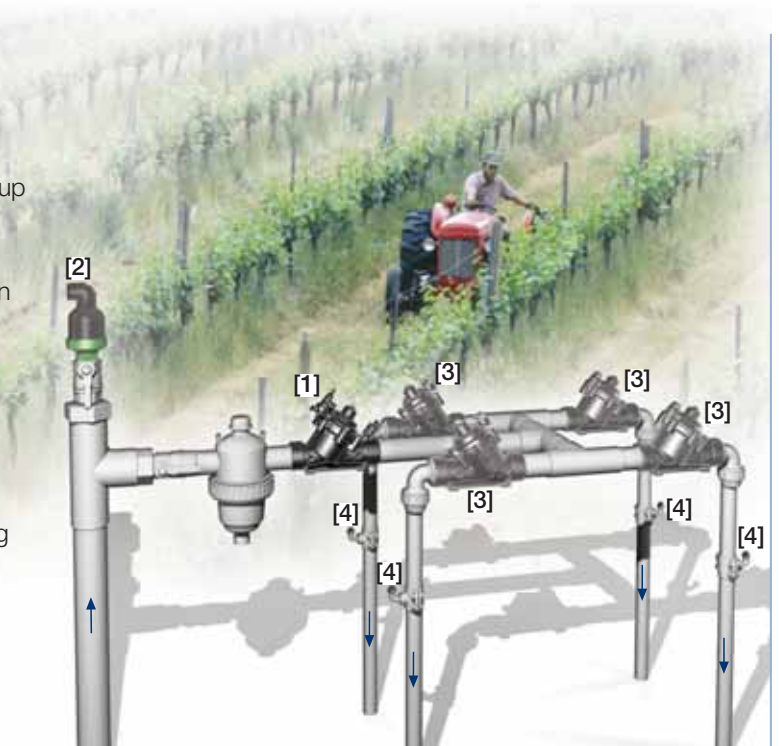
IR-130-54-X

The BERMAD Model IR-130-54-X 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 this command.



Features and Benefits

- Line Pressure Driven, Hydraulically Normally Closed
 - Closes upon control failure
 - Prioritizes pressure zones and controls system fill-up
 - Opens fully upon line pressure rise
 - Amplifies and relays weak remote command
- Engineered Plastic Valve with Industrial Grade Design
 - Highly durable, chemical and cavitation resistant
 - No internal bolts and nuts
- hYflow 'Y' Valve Body with "Look Through" Design
 - Ultra-high flow capacity – Low pressure loss
- Unitized Flexible Super Travel (FST) Diaphragm and Guided Plug
 - Accurate and stable regulation with smooth closing
 - Requires low actuation pressure
 - Prevents diaphragm erosion and distortion
- Simple In-Line Inspection and Service

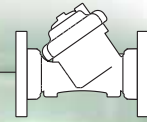


Typical Applications

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

- [1] BERMAD Model IR-130-54-X opens upon pressure rise command, sustains supply system pressure preventing emptying, and controls laterals and distribution lines fill-up.
- [2] BERMAD Air Valve Model ARA-A-P-P
- [3] BERMAD Solenoid Controlled Valve Model IR-110-N1-2W
- [4] BERMAD Vacuum Breaker Model 1/2"-ARV

BERMAD Irrigation



IR-130-54-X

For full technical details, refer to Engineering Section.

100 Series hYflow

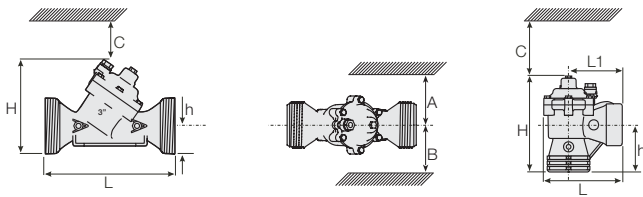
Pressure Sustaining

Technical Specifications

Dimensions and Weights

| Pattern | Angle | Y (Oblique) | | | | |
|---------|-------|-------------|-----------|-----------|-----------|-------|
| | | 80-T | 50-T | 65-T* | 80-T | 80L-T |
| Size | DN | 3-T | 2-T | 2 1/2-T* | 3-T | 3L-T |
| L (L1) | mm | 187 (130) | 230 | 230 | 298 | 300 |
| | inch | 7.4 (5.1) | 9.1 | 9.1 | 11.7 | 11.8 |
| H (Hf) | mm | 235 (245) | 170 (185) | 170 (185) | 180 (195) | 240 |
| | inch | 9.3 (9.6) | 6.7 (7.3) | 6.7 (7.3) | 7.1 (7.7) | 9.5 |
| C | mm | 53 | 140 | 140 | 140 | 180 |
| | inch | 2.1 | 6 | 6 | 6 | 8 |
| h | mm | 117 | 40 | 40 | 50 | 60 |
| | inch | 4.6 | 1.6 | 1.6 | 2.0 | 2.4 |
| A; B | mm | 320 | 135 | 135 | 190 | 190 |
| | inch | 12.6 | 6 | 6 | 8 | 8 |
| Weight | Kg | 1.6 | 1.35 | 1.4 | 1.6 | 3.0 |
| | lb. | 3.5 | 3.0 | 3.1 | 3.5 | 6.6 |

* 2 1/2"; DN65 Male Thread BSP-F, for PVC glue Unions.



Technical Data

Valve Configurations & Size:

Oblique: 2, 2 1/2, 3, 3L, 4 & 6"; DN50, 65, 80, 80L, 100 & 150

Angle: 3"; DN80

End Connections:

Threaded: 2, 2 1/2, 3 & 3"L; DN50, 65, 80 & 80L

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

Grooved: 6"; DN150

Pressure Rating: 10 bar; 145 psi

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

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

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

Materials:

Body, Cover and Plug: Glass-Filled Nylon

Diaphragm: NR, Nylon Fabric Reinforced

Seals: NR

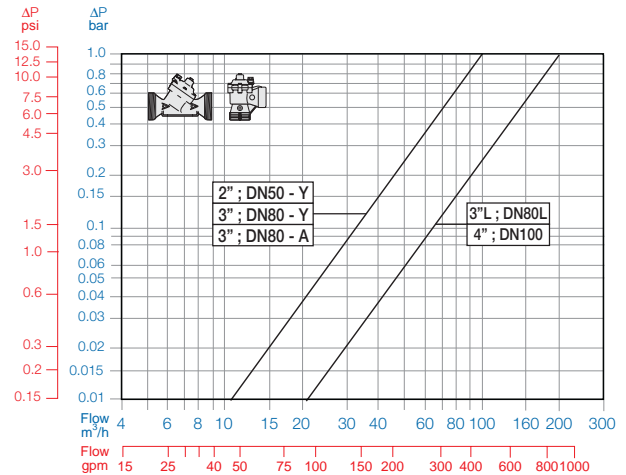
Spring: Stainless Steel

Cover Bolts: Stainless Steel

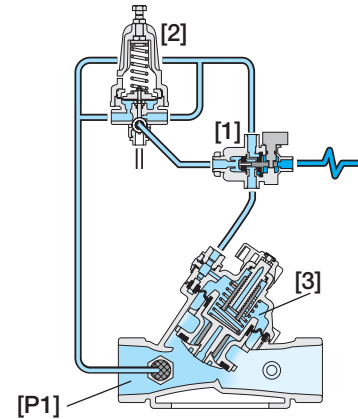
Control Accessories: Plastic

Tubing and Fittings: Plastic

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.

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 | 2-4" Other sizes available on request. | 130 | 54 | Y | P | BP | 3W | - | X |
| | Oblique Angle (3"; DN 80 Only) | Y A | BSP BSP-F (Male Threads 2 1/2"; DN65 only) NPT Plastic Flanges* Metal Flanges* ("Corona") Comply to: ISO PN10, ANSI #125/150, Jis K-10, BS-D | | | BP BS NP FF CC | 3-Way Control Manual Selector Flow Stem with Position Indicator Plastic Pressure Test Point Other attributes available on request | | X Z MP 5 |



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