BERMAD Irrigation



400 Series

Pressure Sustaining

Pressure Sustaining Valve

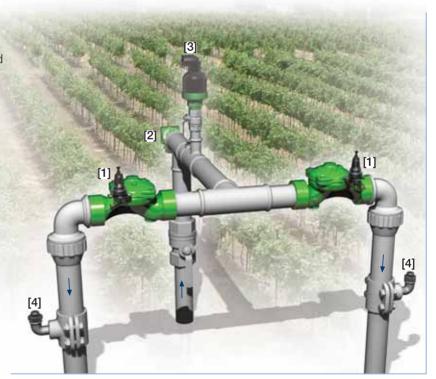
IR-430-KXZ

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.



Features and Benefits

- Line Pressure Driven, Hydraulically Controlled
 - 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

- Line Fill-Up Control Solutions
- Line Emptying Prevention
- Infield Filters Backwash Pressure Sustaining
- Systems Subject to Varying Supply Pressure
- [1] BERMAD Model IR-430-KXZ sustains supply system pressure preventing emptying, and controls laterals and distribution line fill-up.
- [2] BERMAD Relief Valve Model IR-43Q-R
- [3] BERMAD Air Valve Model ARA-A-P-P
- [4] BERMAD Vacuum Breaker Model ½"-ARV



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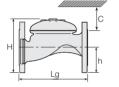
For full technical details, refer to Engineering Section.

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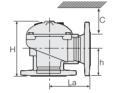
Technical Specifications

Dimensions and Weights

| Pattern | | Globe | | | | | | Angle | | | | |
|-------------|------|----------|------|-------|------|------|------|----------|---------------------------------|------|------|------|
| Connections | | Threaded | | | | | Fl. | Threaded | | | FI. | |
| Size | DN | 40 | 50 | 65 | 80R | 80 | 100 | 50 | 65 | 80R | 80 | 100 |
| I | nch | 1½" | 2" | 2¹/₂" | 3"R | 3" | 4" | 2" | 2 ¹ / ₂ " | 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 |
| Н | 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 |
| С | 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

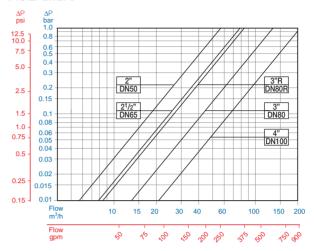
Operating Pressure Range: 0.5-10 bar; 7-145 psi

For lower pressure requirements, consult factory

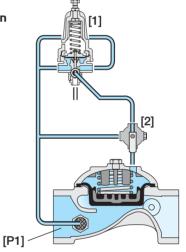
Setting Range: 1-7 bar; 15-100 psi

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

Flow Chart







The Pressure Sustaining Pilot [1] commands the main Valve to throttle closed should Upstream Pressure [P1] drop below setting, and to open fully when [P1] rises above setting. The Manual Selector [2] enables local manual closing.

How to Order

Please specify the requested valve in the following sequence: (for more options, refer to Ordering Guide.)

