



## Waterworks Hydraulic Control Valves

W-40 Globe Seat Seal Valves | **PN25**

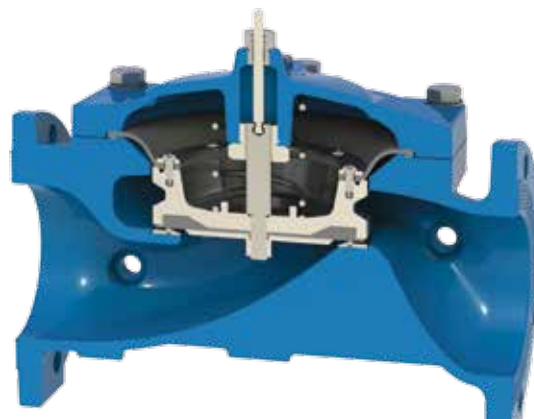


## **WATERWORKS** GLOBE SEAT SEAL VALVES [ PN25 ]

### W-40 Series

#### Accurate, Rapid, Reliable and Quiet

The A.R.I. W-40 Series is line of metal, seat-seal actuated hydraulic control valves which features a unique globe body with floating actuator and an elliptic shaped seat-seal. They are compatibility designed for water level control, flow control, electric & remote control, pressure reducing & pressure sustaining operation in addition to a full range of tailor-made solutions.



- Excellent regulating capabilities for a wide range of flow rates from drip (500 l/h) up to maximum flow
- Operational from low pressure up to 25 bar
- Highly reliable operation and durable over time
- Quick-reaction operation
- Rapid response to changes in flow rate
- Designed to reduce cavitation
- Silent operation
- Low head losses
- Wide range of connections: Flanged, Threaded and Grooved
- Simple mechanism
- Easy inline maintenance
- User-friendly

### About A.R.I.

A.R.I. is a leading manufacturer and provider of solutions for the protection and control of liquid transmission systems. The company manufactures and markets its world renowned comprehensive line of air valves, check valves, and unmeasured flow reducers as well as exceptional performance hydraulic control valves. A.R.I. is known throughout the world for its expertise, service and uncompromising quality – A.R.I. Redefining Reliability

#### Control Valve Applications





## W-40 R

### Pressure Reducing Valve

Maintains a constant downstream pressure regardless of upstream pressure or flow rate fluctuations. The set point of reduced pressure is adjustable by a 2-way or 3-way pilot valve. A spring-loaded diaphragm inside the pilot reacts according to the downstream pressure changes. The pressure fluctuations are compensated by gradual opening and closing of the valve.



## W-40 RE

### Electric Actuated Pressure Reducing Valve

Maintains a constant downstream pressure regardless of upstream pressure or flow rate fluctuations. The set point of reduced pressure is adjustable by a 2-way or 3-way pilot valve. A spring-loaded diaphragm inside the pilot reacts according to the downstream pressure changes. The pressure fluctuations are compensated by gradual opening and closing of the valve. The electric valves are used for remote commands by solenoids in a normally open or closed position and can operate in combination with all the hydraulic pilot applications.



## W-40 E

### Electric Control Valve

The electric valves are used for remote commands by solenoids in a normally open or closed position and can operate in combination with all the hydraulic pilot applications.



## W-40 L

### Level Control Valves

The level control valves are used for a wide range of applications to meet all water level needs using 2-way horizontal float, or vertical float with optional one or two level settings OR 3-way altitude hydraulic pilot P-36A with level settings OR Electric level buoy, controlling a solenoid valve.



## W-40 SE

### Electric Actuated Pressure Sustaining / Relief Valve

The pressure sustaining component maintains the minimum preset upstream pressure regardless of changes in the downstream pressure or in the flow rate. The pressure relief is a sustaining valve that releases excess flow from the system.



## W-40 A

### Surge Anticipating Valve

Surge anticipating valves protect water transmission systems and pumping stations from up-surges, which typically occur at pump shutoff. The two pilots constantly sense the line pressure. In case of a pressure drop below the pre-set pressure, the control chamber drains and the valve fully opens to discharge water from the system. In doing so, it eliminates the returning surge wave.



## Control Pilot Valves

The A.R.I. control pilot series offers a variety of pressure and flow regulating control pilots, suitable for working pressures from 0.3 bar to 25 bar. This wide range of pilots is suitable for two and three-way control circuits, either in metal or reinforced nylon. The A.R.I. series of control pilots are outstanding in their innovation, accuracy, reliability and simplicity.

| Size        | End Connection | Dimensions (mm) |       |        | Weight (Kg) | Hydraulic Performance  |     |
|-------------|----------------|-----------------|-------|--------|-------------|------------------------|-----|
|             |                | Length          | Width | Height |             | Working Pressure (bar) | Kv  |
| 2" (50 mm)  | Flanged        | 230             | 172   | 210    | 11.9        | 0.4 - 25               | 54  |
| 3" (80 mm)  | Flanged        | 310             | 226   | 281    | 26          | 0.4 - 25               | 130 |
| 4" (100 mm) | Flanged        | 350             | 276   | 311.5  | 37          | 0.4 - 25               | 230 |
| 6" (150 mm) | Flanged        | 480             | 376   | 375    | 78          | 0.4 - 25               | 505 |
| 8" (200 mm) | Flanged        | 600             | 460   | 480    | 137         | 0.4 - 25               | 830 |



$K_v = Q / \sqrt{\Delta P}$  Where Q=Flow Rate ( $m^3/h$ ),  $\Delta P$ = Pressure loss across the valve (bar), when fully open

## Flow Chart

