

BERMAD Irrigation

Irrigation



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Product Guide



Irrigation Control Valves

BERMAD Control Valves is a global leader in automation and hydraulic control valves for agricultural, municipal, professional, gardening, turf and residential irrigation systems.

BERMAD develops and markets a complete range of irrigation valves and accessories, including hydraulic valves, pressure control, hydrometers and metering valves, solenoids, air valves, and assorted accessories.

With BERMAD, irrigation system and product designers benefit from the engineering support and know-how of an extensive, worldwide network of suppliers.



Agricultural Irrigation

- Agricultural Irrigation
- Greenhouses
- Irrigation machines
- Sprinklers & Micro-jet
- Drip irrigation
- Filtration
- Reservoirs

Residential & Irrigation

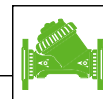
- Residential irrigation
- Residential gardens
- DIY
- Valves & controllers
- Drip irrigation
- Micro-jet

Municipal & Professional Gardening & Turf

- Public parks
- Golf courses
- Central irrigation systems
- Highway banks
- Recycled water



100 Series High-Performance Plastic Valves



For agricultural, turf and golf course flow control

The ultra-high flow and energy efficiency of the Glass-filled (GF) Nylon body material of 100 Series make it one of the most advanced products for demanding flow control applications of today and tomorrow.

These diaphragm-actuated valves perform accurate motion and smooth regulation due to their smart plug assembly.

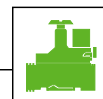
Their design enables easy in-line servicing, and their durable, industrial-grade material composition satisfies the harshest conditions.

The valves are also available with easy-to-use electrical controls and controller array system, as well as all automatically preset water systems.



- **Sizes:** 3" or 4"
- **Pressure range:** 0.7–10 bar - ISO: PN 10 (10-150 psi - ANSI: Class 125)
- **Working temperature :** up to 80°C (180°F) - water
- **End connections:**
 - 3": Female threaded - NPT or BSPT
 - 3"&4": Flanged - in all known standards or PVC pipe Adapters (90 mm or 110 mm)

200 Series Plastic Hydraulic/Electric Control Valves



For residential, commercial, greenhouse and agricultural irrigation

The 200 Series delivers superior performance technology. Made from specially engineered, corrosion-free plastic.

an extremely high flow rate with exceptionally low head loss.

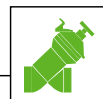
They are equipped with a control handle for flow adjustment and manual solenoid override in the event of a power failure.

cleaning control feature ensures operation in all conditions.

- **Sizes:** 3/4", 1", 1 1/2" & 2" in globe, angle, or Y-patterns
- **Pressure range:** 0.7–10 bar - ISO: PN 10 (10-150 psi - ANSI: Class 125) **Working temperature:** up to 80°C (180°F) - water
- **End connections:** Female threaded (NPT or BSPT)



300 Series Metal Body Hydraulic/Electric Control Valves



For commercial, agricultural and turf irrigation

The 300 Series offers a solution to a broad range of applications through its versatile and accurate double-chambered diaphragm actuator. This special component enables smooth, no-slam closure in all water conditions and operation at very low pressures.

The 300 Series features three operational modes: hydraulic or electric On/Off remote control valve, pressure reducing or sustaining/relief valve, and a combination of the above.

The valves also supply high flow with low head loss and may be installed in any position.

- **Sizes:** 1 1/2", 2" or 3" in either Y- or angle patterns.
- **Pressure range:** 0.7–10 bar - ISO: PN 10 (10-150 psi - ANSI: Class 125)
- **Working temperature:** up to 80°C (180°F) - water
- **End connections:** Female threaded (NPT or BSPT) or Flanged in all known standards



MV-300

Manifold Valve



For municipal gardening and agriculture



The MV-300 is a unique product geared for large-scale irrigation, which significantly saves on labor and investment. Deployed in sets of two, three, or four outlets, the MV-300 Series actuator-based hydraulic valves, performs many diverse functions in a single unit.

The MV-300 is available with single or double-chamber diaphragm-actuated valves, which provide direct or reverse water flow. Its modular structure enables installation in an irrigation closet for maximum space and resource efficiency, and is solidly built with armored plastic reinforced by stainless steel screws. It also performs a wide range of valve functions and can be custom-assembled according to requirements.

- **Pressure range:** 0.7–10 bar - ISO: PN 10 (10-150 psi - ANSI: Class 125)
- **Working temperature:** up to 70°C (158°F) - water
- **End connections:** 2" (BSP or NPT) Female threaded inlets and 1, 2, 3 or 4 1 1/2" (BSP or NPT) male threaded outlets

350 Series

Filter Backwash Hydraulic Valves



For water filtration systems



The patented 350 Series is ideal for automatic backwashing of filtration systems.

These compact, 3-port valves have a simple design that guarantees smooth operation and extended, trouble-free service.

Their diaphragm-actuated plug assembly keeps the water supply port closed when opening the backwash port (and vice-versa), while short travel means smooth flow direction change and water conservation. They also feature a dynamic seal for drip-tight closure of supply and drain ports.

- **Sizes:**
Single-chambered actuator: 3"x 2", 4"x 3", & 4"x 4"
Double-chambered actuator: 2"x 2", 3"x 3"
- **Pressures range:** 0.7-16 bar - ISO: PN 10 (10-225 psi - ANSI: Class 125) for single-chambered and 0.7- 10 bar (10 - 150 psi) for double-chambered
- **Working temperature:** up to 80°C (180°F) - water
- **End connections:**
Grooved: for all sizes
Female threaded: (BSP or NPT) for 2"x 2"
Flanged: in all known standards for 3"x 2" & 4"x 3"

400 Series

Hydraulic Control Valves



For agricultural aid gardening irrigation



The patented and design-registered 400 Series represents the leading edge of control valve technology. This diaphragm-actuated family of valves blends simple, dependable construction with superior performance for a diversity of water control applications in irrigation and waterworks systems.

The diaphragm performs universally under all service conditions, maintains perfect balance with no distortion from uneven hydraulic forces, and is totally immune to pressure surges.

- **Sizes:** 3/4"-12" in globe or angle patterns.
- **Pressures range:** 0.5-16 bar - ISO: PN 16i (7-225 psi ANSI: Class 125)
- **Working temperature:** up to 80°C (180°F) - water
- **End connections:**
Steel: Female-threaded (NPT or BSP) and grooved for 1 1/2"-4", or flanged for 1 1/2"-8" in all known standards
Bronze: Female-threaded (NPT or BSP) for 3/4", 1" & 1 1/2"



900 Series Hydrometers



For agricultural, garden, golf course and municipal irrigation

The 900 Series Hydrometer is based on a patented innovation that combines a water meter control-head and a hydraulic control valve in a single unit, forming a proven solution that enhances cost efficiency, labor, and installation in a variety of irrigation applications.

The Hydrometers are composed of a Woltman-type volumetric water meter, wet or dry primary gear compartment, control-head driven by a built-in vertical turbine and a diaphragm-actuated hydraulic control valve.

This unique combination enables water measurement, shut-off, dosing, and pulse generation, among other features, along with all standard control valve functions (e.g., remote opening/closing; pressure, flow, and level regulating). The 900 Series complies with ISO 4064 Class A standards and features a variety of component options:

Mechanical or magnetic drives control head types are available depending on the flow velocities with optional Ceramic Type guided shaft bearings; US or metric unit water meter displays; electric or optical pulse generation; and automatic single or sequential dosing (AMV).

- **Sizes:** 1½"-8" (40mm-200mm) in globe, angle, or hydrant patterns

- **Pressures range:** 0.7-16 bar - ISO: PN 10/16
(10-225 psi ANSI: Class 125/225)

- **Working temperature:** up to 50°C (120°F) - water

- **End connections:**

Female threaded (BSPT or NPT) for 1½" & 2"

Flanged for all sizes in all known standards



R-Series

RAM HYDRANT 3" Hydraulic Control Valves



For agricultural, turf and filtration

The R-Series 3-inch RAM HYDRANT delivers experience and reliable control of irrigation hydrants. These hydraulically operated diaphragm valves are characterized by their simplicity and durability, made from cast iron or aluminum alloy hard super anodizing.

They operate smoothly under the most adverse weather conditions with virtually no maintenance required thanks to their simple design.

- **Patterns:** Tee (dual or single actuator) or Angled (Single actuator).

- **Pressure range:** 0.7-10 bar - ISO: PN 10 (10-150 psi ANSI: Class 125)

- **Working temperature:** up to 80°C (180°F) - water

- **End connections:** 3" Female threaded (NPT/BSP) or optional "quick" coupling with rubber ring joint ("horn" latch)



MT Series

"BERMADON" Automatic Volumetric Valve



For small-scale automatic irrigation, batch control and small tank refilling

The MT Series, plastic body, "BERMADON", models MT and MTA, is a smart valve that automatically delivers a preset quantity of water and then shuts itself off. Its innovative design, incorporating the highest quality materials, conserves water by metering the flow rather than timing it.

Installation and operation of the valve are easy. It can be installed in any position, does not require electricity to function and requires minimum maintenance.

The MT Series complies with ISO 7714 Class 3 requirements, within 2% of the maximum scale value or 4% of the set volume.

- **Sizes:** ¾" or 1"

- **Pressure range:** 0.7-10 bar - ISO: PN 10 (10-150 psi ANSI: Class 125)

- **Working temperature:** up to 80°C (180°F) - water

- **End connections:** Male threaded (BSP or NPT)



PRV Series Direct Acting Pressure Regulators



For irrigation applications



The PRV Series, plastic, direct acting pressure reducing valve is expressly designed for line pressure applications that demand accurate and reliable control, no matter what fluctuations in supply pressure or flow rate.

The PRV's rolling diaphragm provides a total separation of the mechanism from the flow for long-lasting trouble-free service, as well as minimum friction resistance.

These regulators feature a wide range of springs for downstream pressure setting and come in three models: adjustable or fixed downstream preset pressure and drip-tight for static pressure.

- **Sizes:** 3/4", 1", and 1.5"
- **Pressure range:** 0.7-9 bar, ISO: PN 10 (10-130 psi, ANSI: Class 125)
- **Working temperature:** up to 80°C (180°F) - water
- **End connections:** female- or male-female threaded NPT/BSP for 3/4" and female-female threading for other sizes

S-Series Solenoid Pilot Valves



For electric control in irrigation applications



The S-Series solenoid pilot valves are widely used in conjunction with hydraulic control valves such as the BERMAD 100, 200, 300, 400, and 900 Series to deliver reliable operation in irrigation systems. The solenoid valves exhibit low sensitivity to dirt or voltage fluctuation and low operating temperatures, and eliminate expenditure on wire by reducing the required cross-section.

The S-Series includes 2-way and 3-way operation solenoid and latching solenoid pilot valves, as well as separate solenoid actuator and latching solenoid actuator components.

- **Pressure range:** 10 bar/140 psi (150 psi for latching solenoids)
- **Working temperature:** -5,+70°C - water
- **Ports:** female threaded 1/8" NPT

PC Series Hydraulic Pilot Valves



For regulating valves in irrigation applications



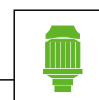
The plastic or metal PC Series is a multi-purpose pilot valve – a 3-way pressure-sensing valve with exception control versatility, capable of converting a hydraulic valve into a pressure reducing or pressure sustaining/relief control valve.

This pilot valve offers the advantage of fully opening the main valve when operating conditions demand minimum loss of pressure, and it can also be used as a hydraulic relay for separating the hydraulic remote signal from the operating pressure to the local valve.

Other models in the PC Series include the individual 2-way Pressure Reducing and Pressure Sustaining Pilot Valves, and 2-way and 3-way Flow rate pilot valves (paddle type), in addition to several control accessories.

- **Pressures range:** 10/16 bar (10-150/225 psi)
- **Working temperature:** up to 80°C (180°F) - water
- **End connections:** female threaded 1/8" or 1/4" NPT

AR Series Air and Vacuum Release Valves



For agricultural irrigation and turf



The AR Series is a unique product line that offers outstanding advantages owing to its simple design and patented operation.

These small, dependable valves support high flow capacity while sealing drip-tight under system pressures as low as 0.1 bar (1.5 psi).

They feature pressure-balanced float, free of distortion or collapse, and their exclusive kinetic design prevents floats from being blown shut.

The AR Series includes four basic models: 1" Automatic Pressure Air Release Valve, 2" Kinetic Air and Vacuum Release Valve, 2" Combination Air and Vacuum Release Valve and 1/2" Vacuum Breaker (ARV), which prevents dirt and toxic substances from infiltrating the drip irrigation system.

- **Pressures range:** 0.1-10 bar/1.5-150 psi for plastic body models and 0.1-16 bar/1.5-225 psi for iron models
- **Working temperature:** 4 - 80°C (40-180°F)
- **End connections:** Female and Male threaded (NPT or BSP)

Russia • Slovenia • Reunion • Czech Republic • Brazil • Korea South • India • usa
 • Kazakhstan • Ecuador • Thailand • Guatemala • Argentina • Dominican Republic
 • Germany • El Salvador • New Zealand • Paraguay • Honduras • Mauritius •
 UK • Netherlands • Cuba • Venezuela • Hong Kong • South Africa • Poland •
 Portugal • Uruguay • Cyprus • France • Greece • Bolivia • Morocco • Panama
 • South Africa • Venezuela • Hong Kong • Australla • Macedonia • Turkey • Egypt
 • Philippines • Peru • Italy • South Africa • Vietnam • Hungary • Israel • Japan
 • Switzerland • Sweden • Slovakia • Taiwan • Spain •



BERMAD Worldwide

With representation on every continent and across some 86 countries, BERMAD is an undisputed world leader in control valves, maintaining a broad training network and parts distribution all over the globe. No matter what the location, BERMAD is there.

BERMAD international head offices:

- BERMAD Australia
- BERMAD Brazil
- BERMAD Chile
- BERMAD China
- BERMAD Colombia
- BERMAD Italy
- BERMAD Mexico
- BERMAD Peru
- BERMAD UK
- BERMAD USA

BERMAD Market Segments

In addition to irrigation, BERMAD provides proven, quality solutions for waterworks, fire protection, petroleum, and water metering. These market segments include complete systems as well as individual components for fluid control and management.

BERMAD Irrigation

Additional Irrigation Catalogs

BERMAD also publishes in-depth guides to several irrigation products:

- 100 Series
- 400 Series
- 900 Series
- S Series - Solenoid
- Irrigation Control Valves - full version

All catalogs are accessible in multiple languages.

