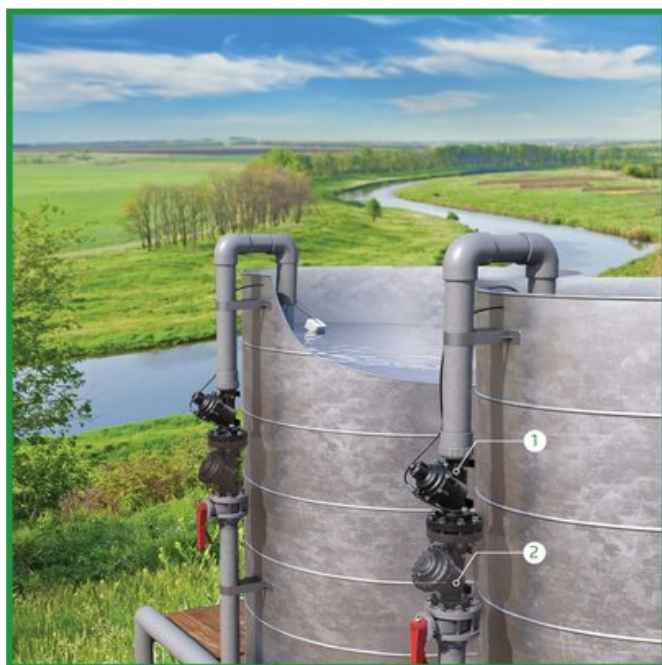




# LEVEL CONTROL VALVE

## Model IR-150-60-2W

Hydraulically operated control valve that controls reservoir filling and reservoir level. Reservoir filling is accomplished in response to a hydraulically modulating horizontal float that maintains a constant water level, regardless of fluctuating demand.



**[1]** BERMAD Model IR-150-60-2W opens upon drop in reservoir level maintaining "Always Full" reservoir, and shuts on rise in reservoir level to preset high.

**[2]** Strainer

### Features & Benefits

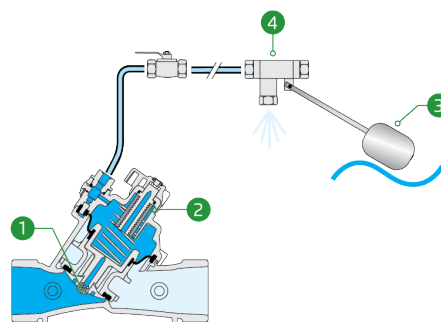
- Line Pressure Driven Hydraulic Level Control
  - "Always Full" reservoir
  - Prevents reservoir overflow
- Engineered Composite Valve with Industrial Grade Design
  - Adaptable on-site to a wide range of end connection
  - Articulated flange connections that eliminate line bending and hydraulic stresses
  - Highly durable, chemical and cavitation resistant
- hYflow 'Y' Valve Body with "Look Through" Design
  - Ultra-high flow capacity at 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

- Plastic Irrigation Systems
- Large Surface Area Reservoirs
- Low Volume Reservoirs
- Installation sites with no available power supply
- Fertilizer Mixing Tanks
- Constant level control systems where maintaining full tank level is required

### Operation:

The Internal Restriction & Filter **[1]** allows continuous flow from valve inlet into the Control Chamber **[2]**. When water level rises, it pushes the Float **[3]** up throttling the Float Pilot **[4]**. Pressure in the control chamber accumulates, causing the valve to throttle closed, reducing filling rate, and eventually closing drip tight.





### Technical Data

#### Pressure Rating:

10 bar

#### Operating Pressure Range:

0.5-10 bar

#### Materials

##### Body & Cover:

Polyamide 6 & 30% GF

##### Diaphragm:

NR, Nylon fabric reinforced

##### Spring:

Stainless Steel

#### Control Loop Accessories

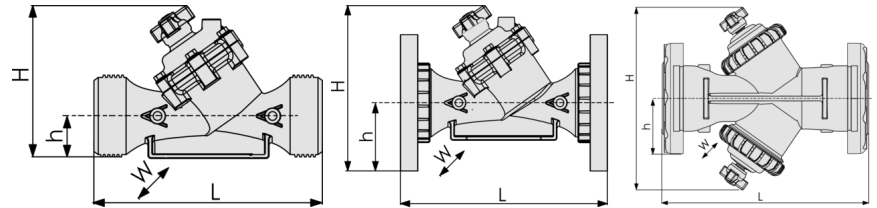
##### Tubing and Fittings:

Polyethylene and

Polypropylene

### Technical Specifications

For other patterns and end connection types,  
Please refer to [BERMAD](#) full engineering page.



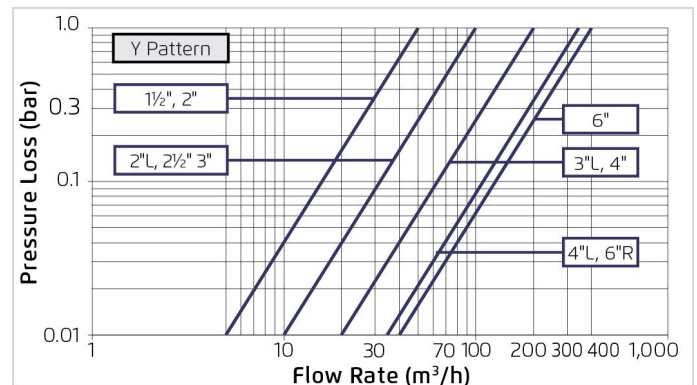
| Size         | Pattern | End Connection  | Weight (Kg) | L (mm) | H (mm) | h (mm) | W   | CCDV (Lit) | KV  |
|--------------|---------|-----------------|-------------|--------|--------|--------|-----|------------|-----|
| 1½" ; DN40   | Oblique | Threaded        | 1.1         | 200    | 173    | 40     | 97  | 0.12       | 50  |
| 2" ; DN50    | Oblique | Threaded        | 1.2         | 230    | 173    | 40     | 97  | 0.12       | 50  |
| 2"L ; DN50L  | Oblique | Threaded        | 1.5         | 230    | 187    | 43     | 135 | 0.15       | 100 |
| 2½" ; DN65   | Oblique | Threaded        | 1.5         | 230    | 187    | 43     | 135 | 0.15       | 100 |
| 3" ; DN80    | Oblique | Threaded        | 1.6         | 298    | 199    | 55     | 135 | 0.15       | 100 |
| 3" ; DN80    | Oblique | Plastic Flanges | 2.5         | 308    | 244    | 100    | 200 | 0.15       | 100 |
| 3" ; DN80    | Oblique | Metal Flanges   | 4.4         | 308    | 244    | 100    | 200 | 0.15       | 100 |
| 3"L ; DN80L  | Oblique | Threaded        | 3           | 298    | 278    | 60     | 168 | 0.62       | 200 |
| 3"L ; DN80L  | Oblique | Plastic Flanges | 3.7         | 308    | 317    | 100    | 200 | 0.62       | 200 |
| 3"L ; DN80L  | Oblique | Metal Flanges   | 4.6         | 308    | 317    | 100    | 200 | 0.62       | 200 |
| 4" ; DN100   | Oblique | Plastic Flanges | 4.6         | 350    | 329    | 112    | 224 | 0.62       | 200 |
| 4" ; DN100   | Oblique | Metal Flanges   | 7.4         | 350    | 329    | 112    | 224 | 0.62       | 200 |
| 4"L ; DN100L | Oblique | Plastic Flanges | 9.2         | 442    | 340    | 112    | 226 | 1.15       | 340 |
| 4"L ; DN100L | Oblique | Metal Flanges   | 11.2        | 442    | 340    | 112    | 226 | 1.15       | 340 |
| 6"R ; DN150R | Oblique | Metal Flanges   | 16.5        | 470    | 377    | 149    | 287 | 1.15       | 340 |
| 6" ; DN150   | Boxer   | Grooved         | 11          | 480    | 387    | 100    | 475 | 2x0.62     | 400 |
| 6" ; DN150   | Boxer   | Plastic Flanges | 12.5        | 504    | 387    | 143    | 475 | 2x0.62     | 400 |

CCDV = Control Chamber Displacement Volume • **Threaded** = BSP & NPT are available. External thread is available for 2" and 2½" only. • Other End Connections are available on request. For dimensions and weights of adapters or valves with adapters please consult with customer service.

### Additional Features

| Code | Description                         | Size Range        |
|------|-------------------------------------|-------------------|
| M    | Flow Stem (*Exclude sizes 4"L, 6"R) | 1½"-6" / DN40-150 |
| S    | Plastic Test Point                  | 1½"-4" / DN40-100 |
| Z    | Manual Selector                     | 1½"-4" / DN40-100 |
| V3   | Victaulic PVC Adaptors 3"           | 3" / DN80         |
| V4   | Victaulic PVC Adaptors 4"           | 4" / DN100        |

### Flow Chart



2-Way circuit "Added Head Loss" (for "V" below 2 m/s): 0.3 bar

### Differential Pressure & Flow Calculation

$$\Delta P = \left( \frac{Q}{K_v} \right)^2$$

$K_v = m^3/h$  @  $\Delta P$  of 1 bar

$Q = m^3/h$

$\Delta P = \text{bar}$