

## Static Digital Lock Balance Valve



**Model: VBS**

## Instruction

### 1. Overview

The static digital lock balance valve is an adjustable valve with digital lock special function. It is a static hydraulic working condition balance valve. The static digital lock balance valve adopts a DC type valve body structure with better equal percentage flow characteristics. The flow can be reasonably distributed, and the static digital lock balance valve is suitable for centralized quantity adjustment. The mass adjustment system for changing the flow rate and the phase change flow can effectively solve the problem of room temperature cold and heat unevenness existing in the heating system. At the same time, the pressure drop and flow rate can be accurately adjusted to improve the tube to improve the liquid flow state in the pipe network system, to achieve the liquid balance of the pipe network and to save the source.

### 2. Characteristics:

- (1) Ideal adjustment performance;
- (2) Excellent cut-off function
- (3) Accurate to 1/10 lap open status display
- (4) Theoretical flow characteristic curve is an equal percentage characteristic curve
- (5) Corresponding flow coefficient is corresponding to each full circle. As long as the pressure difference between the two ends of the valve is measured during commissioning
- (6) The special design of the valve core, good sealing performance, easy maintenance, etc.
- (7) High-pressure self-sealing pressure measuring nozzle, convenient pressure measurement
- (8) The pressure measuring nozzle is set at both ends of the fixing plate hole to ensure the pressure difference test is more accurate
- (9) The valve core and the stem are at an angle of 60 degrees to the valve axis, which makes the fluid mechanics of the medium better.
- (10) The seal is made of special EPDM "O" type sealing ring to ensure no leakage, and the handle rotates smoothly.

### 3. Technical standard

- (1) Normal pressure:  $PN \leq 1.6\text{Mpa}$
- (2) Working medium: Water, Ethylene glycol mixture
- (3) Working temperature:  $-20^{\circ}\text{C} \leq T \leq 120^{\circ}\text{C}$
- (4) Connection end: 3/4"~2" female thread
- (5) Testing port connection end: 1/4" female thread

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#### **4. Component material**

PTFE and silicone rubber seal, reliable sealing performance;

The inner part is made of copper alloy, which has strong corrosion resistance and long service life;

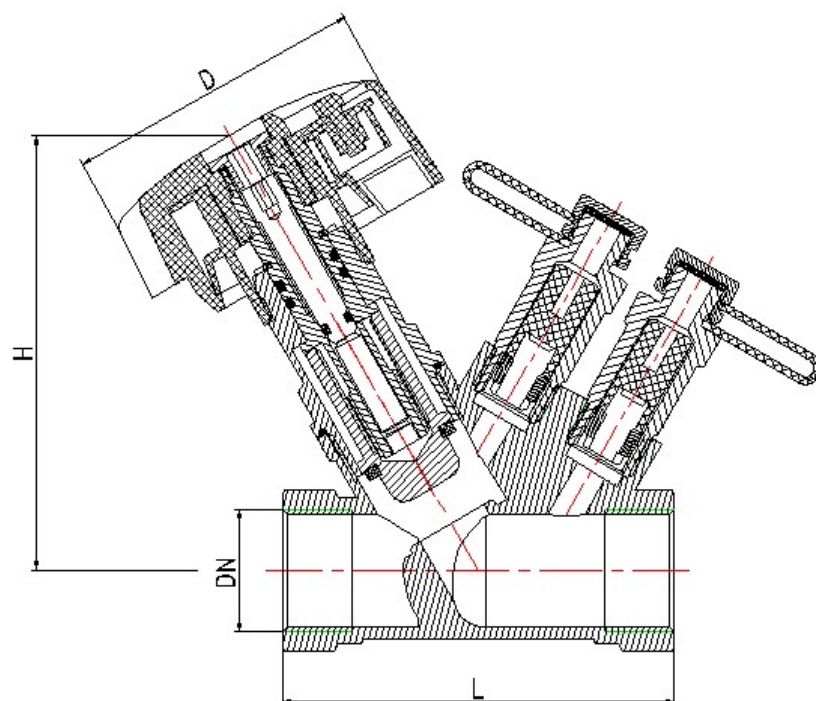
The internal lift valve stem does not require room for operation.

#### **5. Advantages**

Static digital lock balance valves are ideal for use in heating systems. It can be installed on the water supply pipe or on the return pipe, especially for the high temperature loop. For the convenience of debugging, it should be installed on the return pipe. The supply (return) pipe with the balance valve is not required to have a stop valve. The static digital lock balance valve is used for centralized quantity adjustment, and the adjustment system of centralized quality and phase change flow is very effective. When the system flow changes, each branch of the digital lock balance valve is installed, and the flow rate of each user will be proportionally increased or decreased, and the flow distribution scheme at the initial adjustment is maintained.

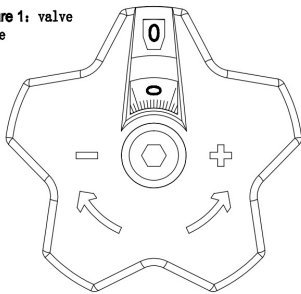
#### **6. Operation and installation**

The static digital lock balance valve is equipped with opening degree indication, opening degree locking device and pressure measuring small valve for flow measurement. As long as the appropriate standard balance valve is installed in each branch and user inlet, and the special intelligent instrument is used for one-time debugging. After locking, the total water volume of the system is controlled within a reasonable range, thereby overcoming the irrational phenomenon of "large flow, small temperature difference".

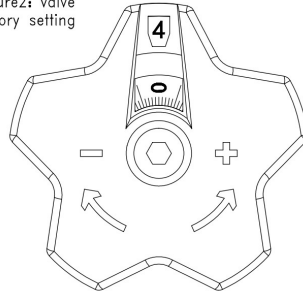


DN	SIZE	L	D	H
20	3/4	84	68	92
25	1	91	68	99
32	1 1/4	100	68	103
40	1 1/2	114	68	109
50	2	123	68	118

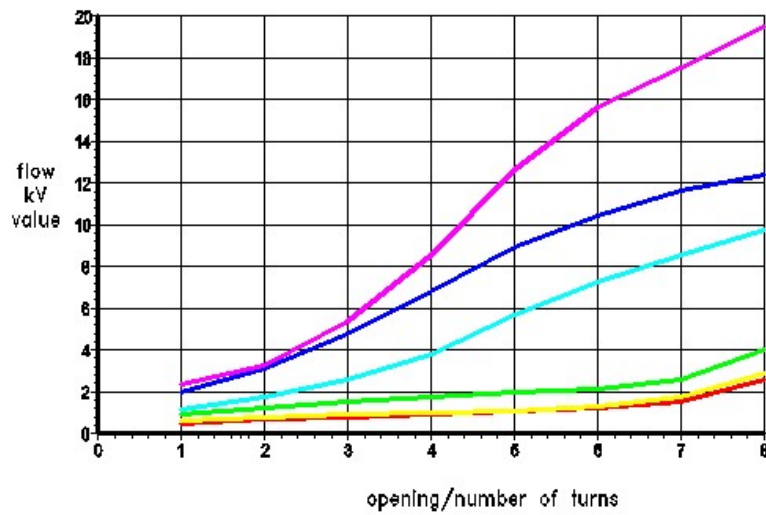
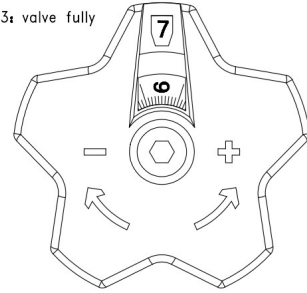
Picture 1: valve close



Picture2: valve factory setting



Picture 3: valve fully open



specification	curve color	Maximum flow kV value
DN15	red	2.54
DN20	yellow	2.86
DN25	green	3.98
DN32	cyan	9.75
DN40	blue	12.38
DN50	magenta	19.47