

**注意：**用户在使用本产品之前，请先仔细阅读本说明书。

**NOTICE:** The user must read this operation instruction carefully, Before Use this product.

**100X-16P 型**

100X-16P Type

**液压水位控制阀**

Hydraulic Level Control Valve

**使用说明书**

operation instruction



**上海沪工阀门厂（集团）有限公司**

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**CAUTION!**

**This operation instruction has to be read and observed carefully before unpacking and commissioning of the product! The product may only be used and serviced by persons familiar with the operation instruction. Without the authorization, changes are not permissible.**

**Before any work on the product, precautions have to be taken to protect personnel and equipment against all sources of danger resulting from chemical composition, pressure and temperature of the medium as well as from all operating powers.**

**注意！**

开箱及交付使用前必须仔细阅读该说明书，该产品只允许在  
规定参数下使用，未经允许，不允许对该产品做任何改动。

对该产品做任何处理之前，应采取安全措施保护人员和设  
备，例如：化学腐蚀、介质温度及压力伤害及动力源等。



# 液压水位控制阀 使用说明书

## Hydraulic Level Control Valve Operation Instruction

### 1. 主要用途与适用范围

#### Main application and applicable scope

1. 本系列阀门为水利控制阀的一种连接使用形式之一，主要用于消防或其他供水系统的水池中，控制水池的水位高低，属于自动类控制阀门。

This series of valves is one of the connection and use forms of hydraulic control valves, which are mainly used in water pools of fire fighting or other water supply systems to control the water level of water pools and belong to automatic control valves.

2. 适用范围：污水处理、水处理、造纸、制药等行业。

The scope of application: wastewater treatment, water treatment, paper making, pharmaceutical and other industries.

### 2. 结构和作用原理

#### Structure and principle

1. 本系列阀门为法兰连接。主要由阀体、阀板、阀杆、阀盖、膜片、弹簧、控制阀、控制管件等零部件组成。

This series valve is flange connection. Mainly by the valve body, valve plate, stem, bonnet, diaphragm, spring, control valve, control of pipe fittings and other components.



2. 当管道从进水端给水时，由于针阀、球阀、浮球阀是常开的，水通过微型过滤器、针阀、控制室、球阀、浮球阀进入水池，此时控制室不形成压力，主阀开启，水塔(池)供水。

When the pipeline feeds water from the inlet end, since the needle valve, ball valve and ball float valve are normally open, water enters the pool through the micro - filter, needle valve, control room, ball valve and ball float valve, and no pressure is formed in the control room at this time, the main valve is opened and the water tower ( pool ) supplies water.

3. 当水塔(池)的水面上升至设定高度时，浮球浮起关闭浮球阀，控制室内水压升高，推动主阀关闭，供水停止。当水面下降时，浮球阀重新开启，控制室水压下降，主阀再次开启继续供水，保持液面的设定高度。

When the water level of the water tower ( pool ) rises to the set height, the floating ball floats to close the ball valve, control the increase of water pressure in the room, push the main valve to close, and stop the water supply. When the water surface descends, the ball float valve opens again, the water pressure in the control room drops, and the main valve opens again to continue water supply and maintain the set height of the water surface.



### 3. 规格及技术参数

#### Specifications and technical parameters

阀门 Valve	公称口径 DN	50mm--600mm
	公称压力 PN	1.6MPa
	适用温度 Applicable temperature	≤ 80℃
	启闭压差 Opening and closing the differential	1.6MPa
	适用介质 Suitable medium	水 water

### 4. 产品特点

#### Product features

- 1、 利用水力自动操作，通过浮球控制内部压力是阀板开关，调节水池水位，使水池的水位保持在设定的高度。

Using hydraulic automatic operation, the valve plate switch controls the internal pressure through the floating ball to adjust the water level of the pool so that the water level of the pool is kept at a set height.

- 2、 动作开关灵活，加长浮球阀的连接控制管道，可实现远程自动控制。

The action switch is flexible and lengthens the connecting control pipeline of the ball float valve, which can realize remote automatic control.

- 3、 本产品利用水力自力控制，不需要其它装置和能源，保养简便，一阀多用。



This product use hydraulic self control, do not need other devices and energy, maintenance is simple, one valve is multi-purpose.

- 4、 阀体采用了全通道、直流式、流线型设计。水力损失小，节能效果好。  
Body adopts the whole passage, once-through, streamlined design.  
Hydraulic loss is small, energy-saving effect is good.
- 5、 本系列阀门产品广泛用于高层建筑、生活区等供水管网系统及城市供水工程。

This series valve products are widely used in high-rise buildings, living quarters and other water supply pipe network system and urban water supply engineering.

## 5. 主要零件材质

### Material for main parts

零件名称 Part name	材质 Material
阀体 阀盖 body, bonnet,	WCB
阀板 plate	WCB
密封圈 Sealing ring	NBR
弹簧 Spring	304
阀杆 Stem	2Cr13
膜片 diaphragm	NBR
调节阀、球阀 Control valve, ball valve	铜合金 Copper alloy
过滤器 filter	304

## 6. 保管、安装、使用与注意事项

### Safekeeping, installation, use and the matters needing attention

1. 本产品应保存在干燥的仓库内，严禁露天存放。

This product should be stored in dry warehouse, it is strictly prohibited in open air.

2. 长期存放，要定期检查。加工表面每隔 6 个月应清除表面污垢一次。

Long stored, check regularly. Machining surface every six months should be cleared surface dirt again.

3. 本阀应安装在水平管路上。

This valve should be installed in a horizontal pipeline.

4. 安装时应仔细核对使用情况是否与本阀性能规范相符。

When installation should be carefully check whether usage is consistent with this valve performance specifications.

5. 本阀不允许作调节流量之用。

This valve is not allowed to adjust flow.

6. 安装时注意以下事项：

When installation, pay attention to the following items:

- a. 安装前应清洗管道、阀门内腔、密封面和全部外露传动副表面的污垢和泥砂，但注意不得碰伤密封面。

Before installation should clean pipe, valves, inner cavity, seal face and all the leakage transmission vice dirt and mud on the surface of the sand, but do not touch seal face.

- b. 检查各处螺栓是否均匀拧紧。

Check all bolts evenly on tight.





- c. 起重吊索不许系结在阀杆上，应置于阀门腰部。

Lifting sling is not allowed to tie knot on the valve stem and valve should be placed on the waist.

- d. 阀门安装好后，应进行试运行，然后再正式运行。

After installation of valve, should carry on the trial run, then run formally.

- e. 本系列阀门具有介质的流向性，安装时注意阀体铸造箭头应与介质流向相同。

This series valves have the property of medium flow, pay attention to the body casting arrow when installation should be the same as the medium flow direction.

7. 阀门装好后，管路试压时，必须全部开启。

When valve is installed, pipeline pressure test, must be fully open.

8. 阀杆外露部分应定期涂润滑油。

The valve stem leakage parts should be coated lubricating oil regularly.

9. 本阀在使用中应定期检查：

This valve in use should be checked regularly:

- (1)密封面的磨损情况。

Sealing surface wear.

- (2) 阀体密封面与闸板密封面间是否有污物堆积。

The valve sealing surface between the disc sealing surface and if there is dirt accumulation.

10. 阀门检修后必须进行密封试验。



The valve must be sealed test after repair.

## 7. 可能发生故障及消除方法

### May be down and eliminating methods

可能发生的故障 Possibility of failure	发生故障的原因 Cause of the failure	消除办法 Eliminate the way
连接法兰密封面 渗漏 Leakage of flange sealing surface	<ol style="list-style-type: none"> <li>1. 法兰连接螺栓未拧紧。 The flange bolts not tight.</li> <li>2. 法兰密封面损坏。 The flange sealing surface damage.</li> <li>3. 垫片破裂或失效。 The gasket fracture or failure.</li> </ol>	<ol style="list-style-type: none"> <li>1. 均匀对称拧紧螺栓。 The homogeneous symmetric screw down the bolt.</li> <li>2. 重新修理法兰密封面。 To repair the flange sealing surface.</li> <li>3. 更换垫片。 Replace the gasket.</li> </ol>
密封渗漏 Seal leakage	<ol style="list-style-type: none"> <li>1. 密封面间夹有杂物。 Have sundry between sealing surface.</li> <li>2. 密封面损伤或损坏。 The sealing surface damage or damage.</li> </ol>	<ol style="list-style-type: none"> <li>1. 清洗密封面。 Cleaning the sealing surface.</li> <li>2. 重新加工密封面或更换零件。 The reprocessed seal face or replacement parts.</li> </ol>



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