The following is the relevant information about the J145X electric remote control valve:

Product Introduction

- **Structural Composition**: It consists of a main valve, an electromagnetic pilot valve, a needle valve, a ball valve, and a micro filter to form a hydraulic control connecting pipe system. The main valve control chamber has a double-control chamber structure of a diaphragm type or a piston type, and the valve body adopts a direct-flow design.
- **Working Principle**: When the valve is supplied with water from the inlet end, the water flows into the upper control chamber of the main valve through the needle valve. When the electromagnetic pilot valve is opened, the water in the control chamber flows out through the electromagnetic pilot valve and the ball valve. Since the opening degree of the ball valve is larger than that of the needle valve, the pressure in the upper control chamber of the main valve becomes lower, and the main valve opens fully. When the electromagnetic pilot valve is closed, the water in the upper control chamber of the main valve cannot flow out, the pressure in the control chamber increases, and the diaphragm is pushed to close the main valve.
- **Function and Purpose**: It is installed on the pipelines of various water supply systems, and can also be installed on the main pipelines and branch pipelines of the water supply network to realize the telecommunication remote control function of the pipelines. It can sequentially achieve functions such as slow opening, full opening, rapid closing, and slow closing, preventing or reducing the water hammer and water shock effects on the pipelines due to the opening and closing of the valve.

Typical Installation Schematic Diagram

Generally, the J145X electric remote control valve is installed on a horizontal pipeline with the valve cover facing upward, and the installation position should be convenient for operation and maintenance. Gate valves or butterfly valves need to be installed before and after the valve to cut off the water flow during maintenance. At the same time, a filter should be installed before the valve to prevent impurities from entering the valve and affecting its normal operation. In addition, instruments such as pressure gauges should be installed according to actual needs to monitor the pressure changes in the pipeline.

Maintenance

- **Regular Inspection**: Regularly check all components of the valve, including the main valve, electromagnetic pilot valve, needle valve, ball valve, micro filter, etc., to check for signs of wear, corrosion, aging, or damage. Check whether the sealing components have leaks. If there is a leak, find the cause in time and replace the sealing parts.
- **Cleaning Components**: Regularly clean the inside of the valve to remove impurities, dirt, and rust. Pay special attention to cleaning key parts such as the valve seat and valve core of the main valve and the valve core of the electromagnetic pilot valve to ensure the cleanliness and smoothness of the sealing surface, and prevent the sealing performance and normal operation of the valve from being affected by the accumulation of impurities.
- **Lubrication Maintenance**: For the moving parts of the valve, such as the journal of the valve core and the spring, a small amount of lubricating grease can be applied appropriately to reduce friction and ensure their flexible movement. However, be

careful to avoid the lubricating grease from entering the sealing surface of the valve to prevent affecting the sealing effect.

- **Check the Electrical System**: Check whether the electrical connection of the electromagnetic pilot valve is good, and whether there are phenomena such as looseness and short circuit. Test whether the coil resistance of the electromagnetic pilot valve is within the normal range. If there is an abnormality, replace the electromagnetic pilot valve in time. At the same time, check whether the power supply voltage is stable to ensure that the electromagnetic pilot valve can work normally.

Troubleshooting

- **The valve cannot be opened**: It may be due to a fault in the electromagnetic pilot valve, such as a damaged coil or a stuck valve core. Check the electromagnetic pilot valve and repair or replace it; it may also be a control circuit fault. Check the circuit connection and the control signal to see if they are normal; it may also be that the valve core of the main valve is stuck, and the main valve needs to be disassembled for inspection and cleaning.
- **The valve cannot be closed or does not close tightly**: The reason may be that the sealing surface is damaged. Check the sealing surface of the main valve and repair or replace the sealing parts if it is damaged; or there are impurities blocking the control chamber, affecting the pressure balance, and it is necessary to clean the control chamber and the relevant pipelines; in addition, the electromagnetic pilot valve not closing tightly may also cause this problem, and it is necessary to check and repair or replace the electromagnetic pilot valve.
- **The valve moves slowly or unstably**: It may be that the opening degree of the regulating valve is set improperly, and readjust the opening degree of the regulating valve; it may also be that the pressure in the pipeline is unstable, check the pipeline pressure and make corresponding adjustments; it may also be that the valve components are worn or aged, and the worn components need to be replaced.

Performance Characteristics

- **Precise Control**: It has an accurate and fast control response, and can precisely control the opening and closing of the valve according to the electrical signal or manual operation.
- **Slow Closing Function**: It has a good effect on preventing water hammer. It integrates the technologies of slow opening, check rapid closing, and slow closing for water hammer elimination, effectively preventing the damage of the water supply pipeline and the water pump caused by the water hammer during pump start-up and the backflow and water hammer during pump stop.
- **Easy Maintenance**: It adopts a three-way solenoid valve, with a simple structure and convenient maintenance.
- **Smooth Closing**: The closing speed is adjustable, and the valve can close smoothly without generating pressure fluctuations.
- **Reliable Sealing**: The main valve uses a rubber sealing ring for sealing. The closing force is automatically formed in the main valve control chamber, always maintaining an appropriate closing force, with a long sealing life and high reliability.


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