



Pneumatic Control Valve

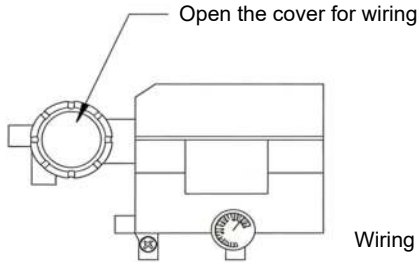
Instruction Manual

- Please read this instruction manual carefully before installation and use.
- Retain this manual for future reference.
- Ensure proper use of the product by thoroughly understanding the contents of this manual.

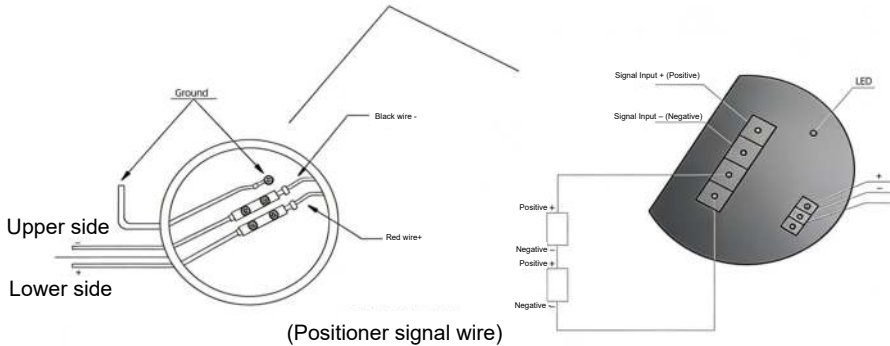
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| Wiring Diagram



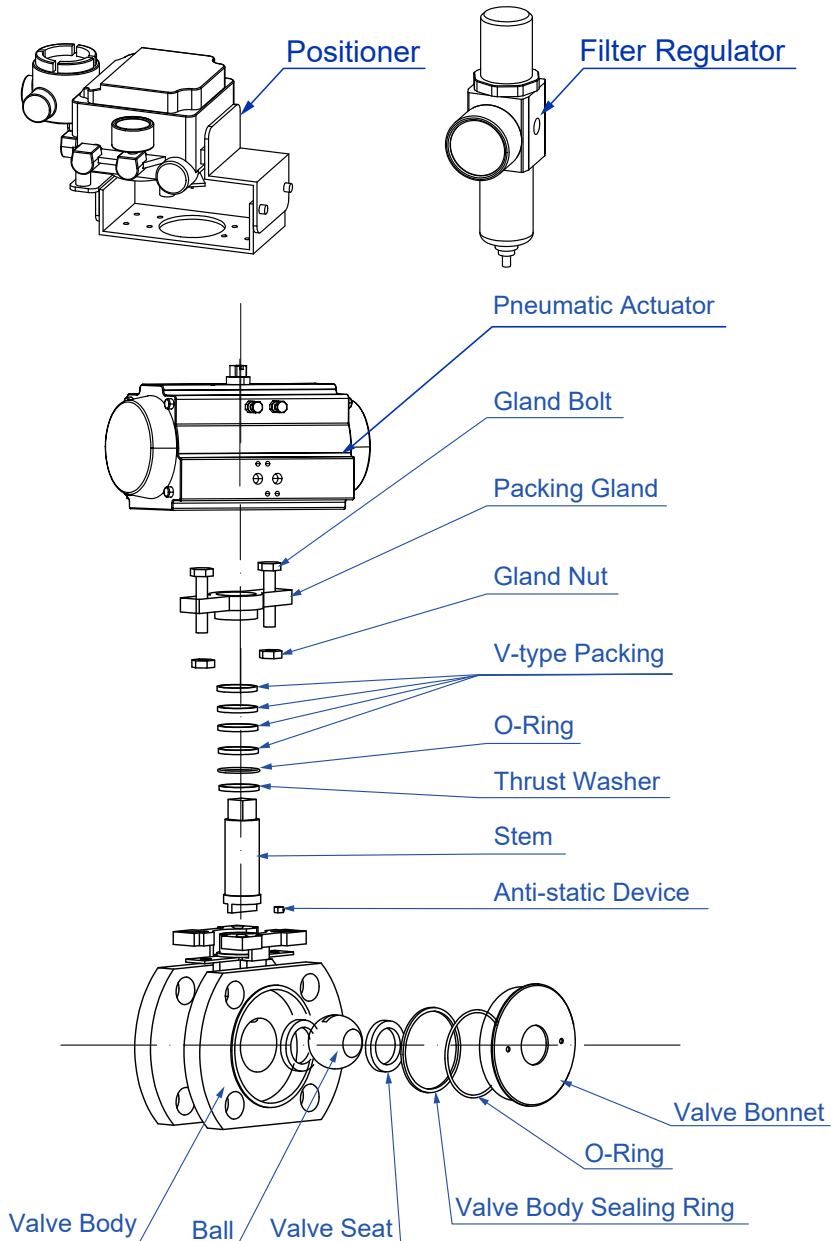
Wiring Diagram of Electrical Positioner



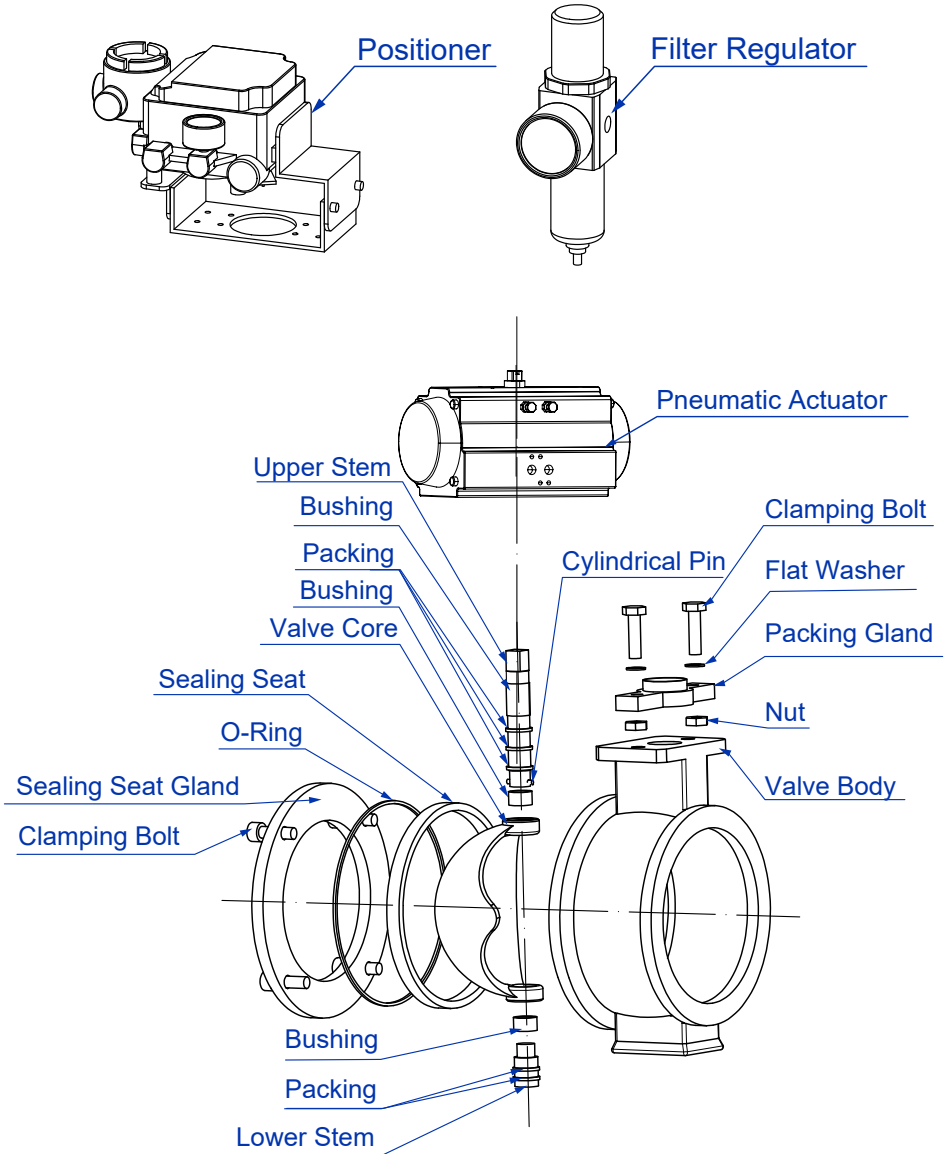
Positioner Wiring Diagram

Note: The actual wiring method of the positioner shall be subject to the positioner of the brand specified by the customer.

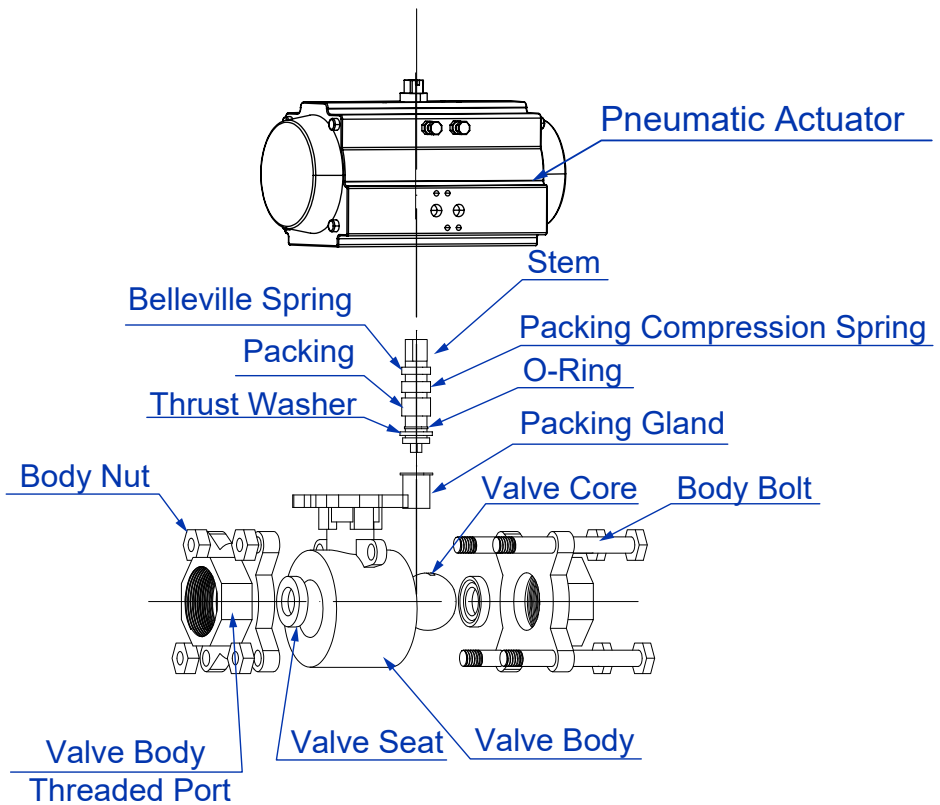
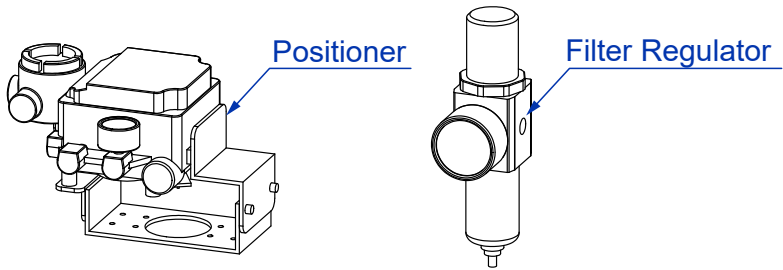
| Structure Drawing of Flanged Ball Valve



Structure Drawing of Wafer Type Ball Valve

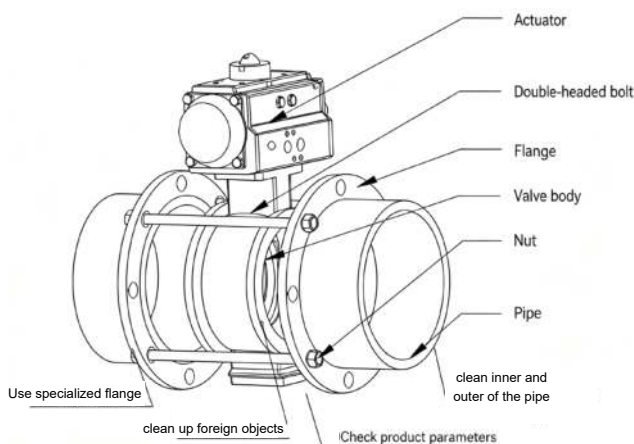
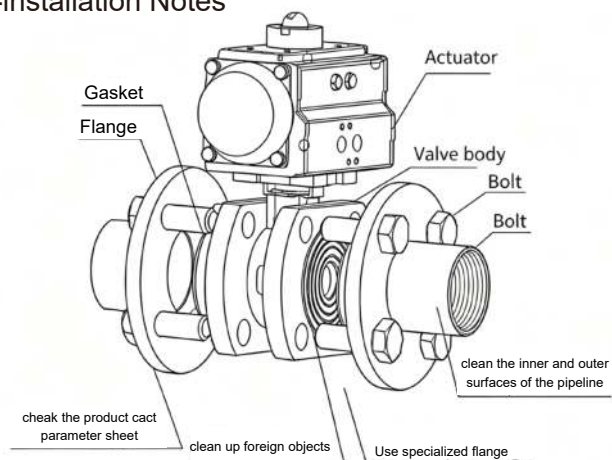


Structure Drawing of Female Threaded Ball Valve



Installation Procedure for Pneumatic Control Valve

■ Pre-installation Notes



Note:

The pipelines upstream and downstream of the valve shall be properly prepared; the upstream and downstream pipes shall be coaxial, and the sealing faces of the two flanges shall be parallel.

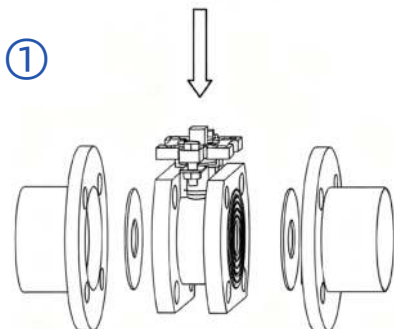
The pipeline shall be capable of bearing the weight of the valve; otherwise, appropriate supports shall be provided on the pipeline.

The pneumatic control valve can be mounted on pipelines at any angle, but inverted installation is not recommended for ease of maintenance.

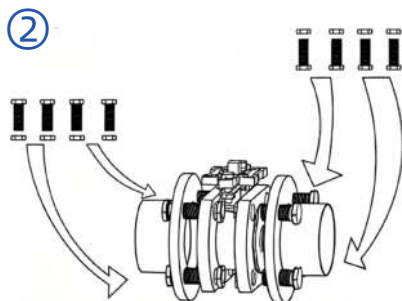
■ Installation Steps for Pneumatic Control Valve

- Place the valve between the two mounting flanges;

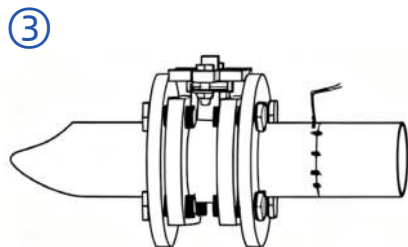
Pneumatic Flanged Ball Valve



- Insert the bolts gently into the flange holes and slightly tighten the nuts to correct the flatness of the flange surfaces;



- Fix the flanges to the pipeline by spot welding

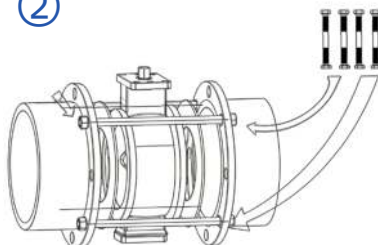


Pneumatic Wafer Type Ball Valve

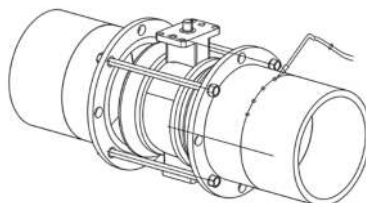
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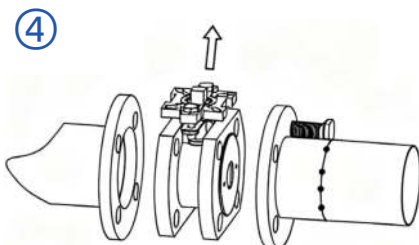


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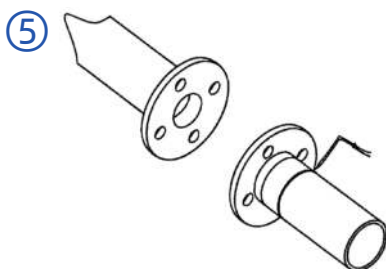


Pneumatic Flanged Ball Valve

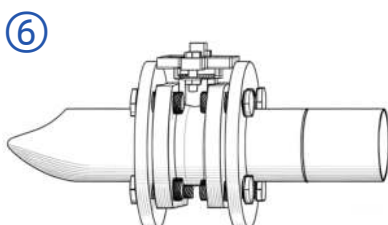
- Remove the valve;



- Fully weld and fix the flanges to the pipeline;



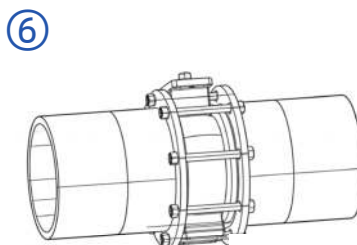
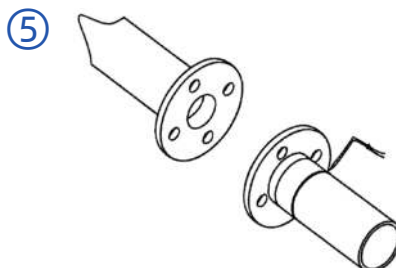
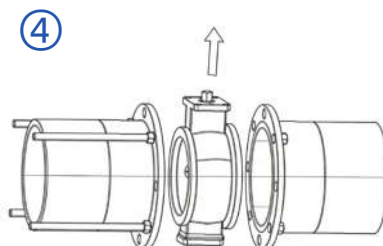
- Reinstall the valve after the weld joints have cooled, ensuring sufficient clearance in the flanges to prevent valve damage; align the valve position and tighten the bolts; tighten all nuts in a crisscross and balanced manner.



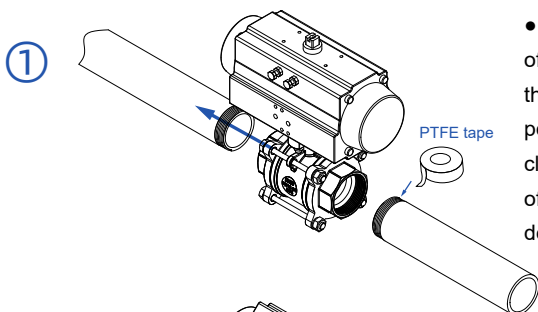
- Ensure the valve can open and close freely.

The opening and closing stroke of the control mechanism has been adjusted at the factory for the pneumatic control valve. If no special stroke requirements are needed, it can be put into operation directly after wiring.

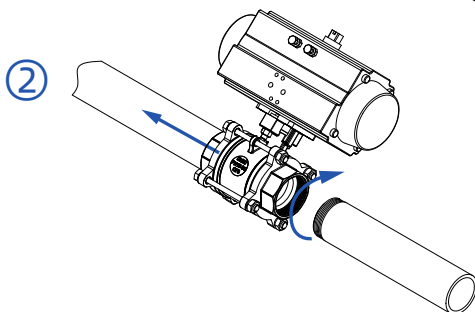
Pneumatic Wafer Type Ball Valve



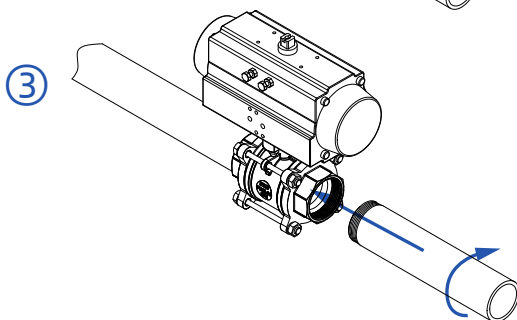
Pneumatic Female Threaded Ball Valve



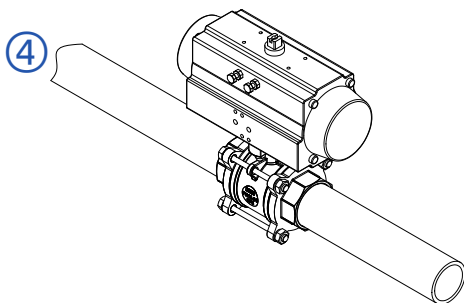
- Pre-treatment: Clean the threads of the pipeline and valve, and set the valve to the half-open position. Wrap PTFE tape: Wind clockwise along the external threads of the pipeline. The number of turns depends on the pipe diameter.



- Gently butt the valve with one side of the pipeline, rotate the valve by hand to engage the threads naturally for 2–3 turns, ensuring alignment without deflection. (Do not force the valve in, to avoid thread damage.)



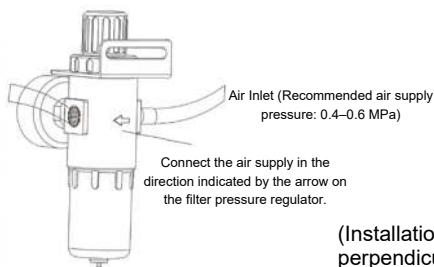
- Connect the other side of the pipeline to the opposite end of the valve, and also screw in by hand for 2–3 turns to ensure both ends are pre-tightened. At this point, the valve and pipeline form an integral unit, and the position can be fine-tuned.



- Tighten the joints at both ends evenly to avoid excessive stress on one side, which may cause valve body deformation or thread cracking. (Maintain pressure for a period of time. The valve can be put into service only after no leakage is confirmed.)

Accessory Instructions

■ Operating Instructions and Usage Method of Filter Regulator



(Installation direction shall be perpendicular to the ground.)

Instructions for Use

The filter regulator is used on pneumatic control valves to receive air supply pressure from the main air pipeline (drainage recommended once a week). It reduces the pressure to the set value and supplies stable air pressure to the positioner or other related devices. (Inert gas is recommended for the air supply.)

Operation Method

Before supplying pressure, fully turn the adjusting screw counterclockwise to ensure the adjusting spring is free of load.

Install a pressure gauge at the pressure gauge port or the air outlet. This gauge indicates the output pressure after the inlet air pressure is reduced by the regulator.

Block the outlet and pressure gauge port with a ball valve or similar fitting, then supply air pressure through the inlet port.

Manually adjust the adjusting screw until the outlet pressure rises to the set pressure. Stop turning the screw and tighten the lock nut.

■ Common Faults and Solutions of Pneumatic Control Valve

Common Faults	Solutions
Valve stuck / cannot operate	Remove debris, clean valve cavity.
Flange seal leaks.	Replace gasket, tighten flange bolts (evenly).
Packing leaks.	Replace packing correctly.
Valve core leaks.	Check and replace seat seal.

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