
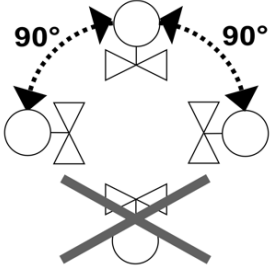

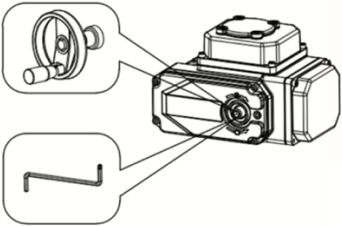

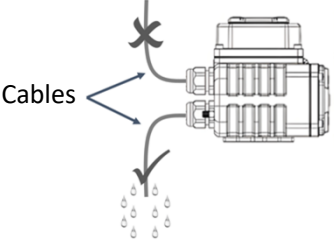

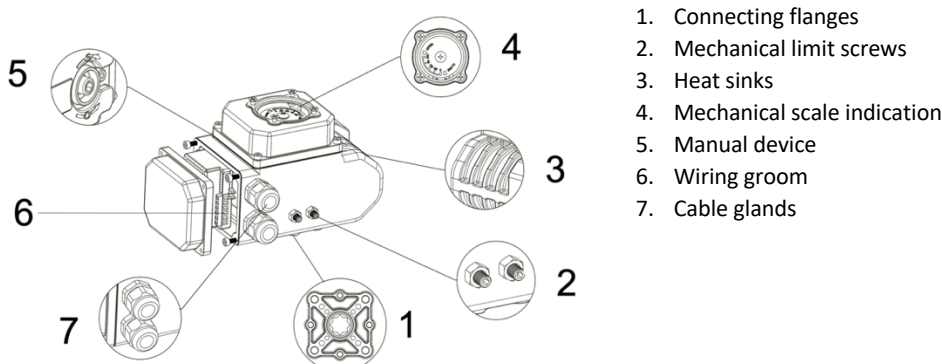


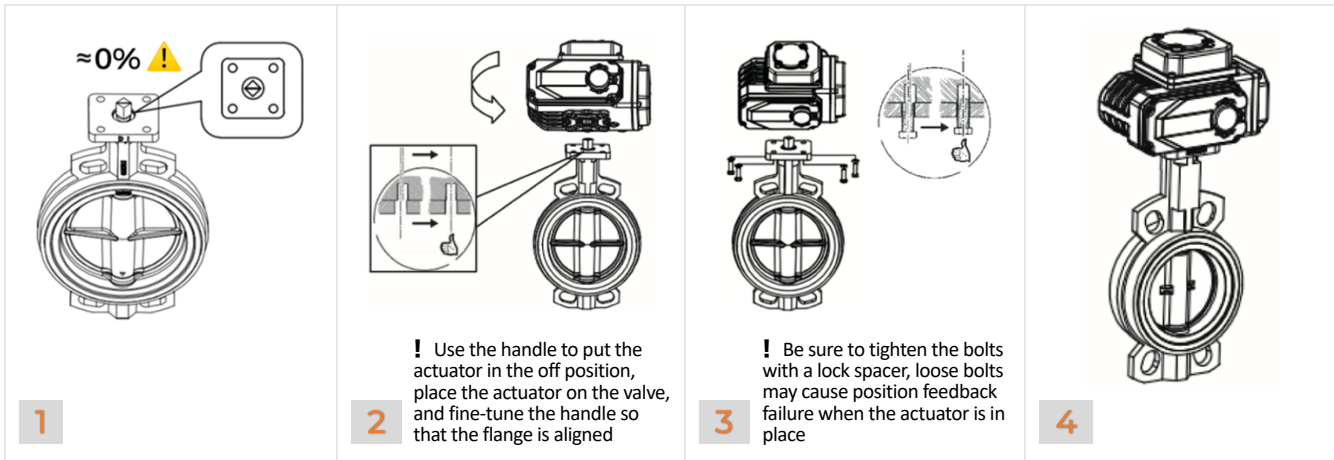
## 1. Precautions

 <p>Keep this manual safe!</p>	 <p>Horizontal or vertical installation, it is strictly forbidden to reverse!</p>	 <ul style="list-style-type: none"> <li>The operation of this equipment must at all times comply with regulations and restrictions designed for the safety of persons and property!</li> <li>The device is not allowed to be used outside of the specified application area, especially on aircraft.</li> <li>The device should only be installed by properly trained personnel.</li> <li>The equipment installation process must comply with local laws and regulations or regulations issued by the authorities.</li> <li>Valves must comply with all local and currently applicable laws and regulations when disposed of at the end of life and are not allowed to be disposed of as household waste.</li> <li>According to the law, some parts may require special handling because they may cause harm to the ecological environment.</li> <li>During the pipeline pressure test and pipeline flushing, the valve should be in a fully open state.</li> <li>Be sure to disconnect the power supply before wiring, and it must be operated by two people to prevent sudden power on during operation.</li> <li>When wiring, avoid the leakage problem caused by moisture vapor entering the actuator.</li> <li>When the medium temperature is higher than 80°C, the actuator should be insulated.</li> <li>Requirements for the use of the equipment: <ul style="list-style-type: none"> <li>Temperature -25–70 °C, humidity ≤95 %, no condensation.</li> </ul> </li> </ul>
 <p> When powered on, do not push the hand wheel or handle to operate</p>	 <p> Connect the cables according to the specifications</p>	

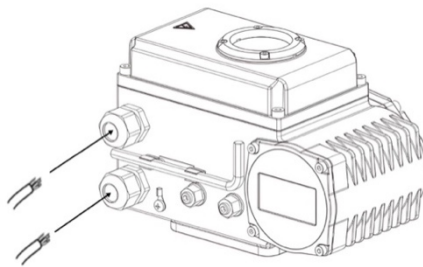
## 2. Structural diagram



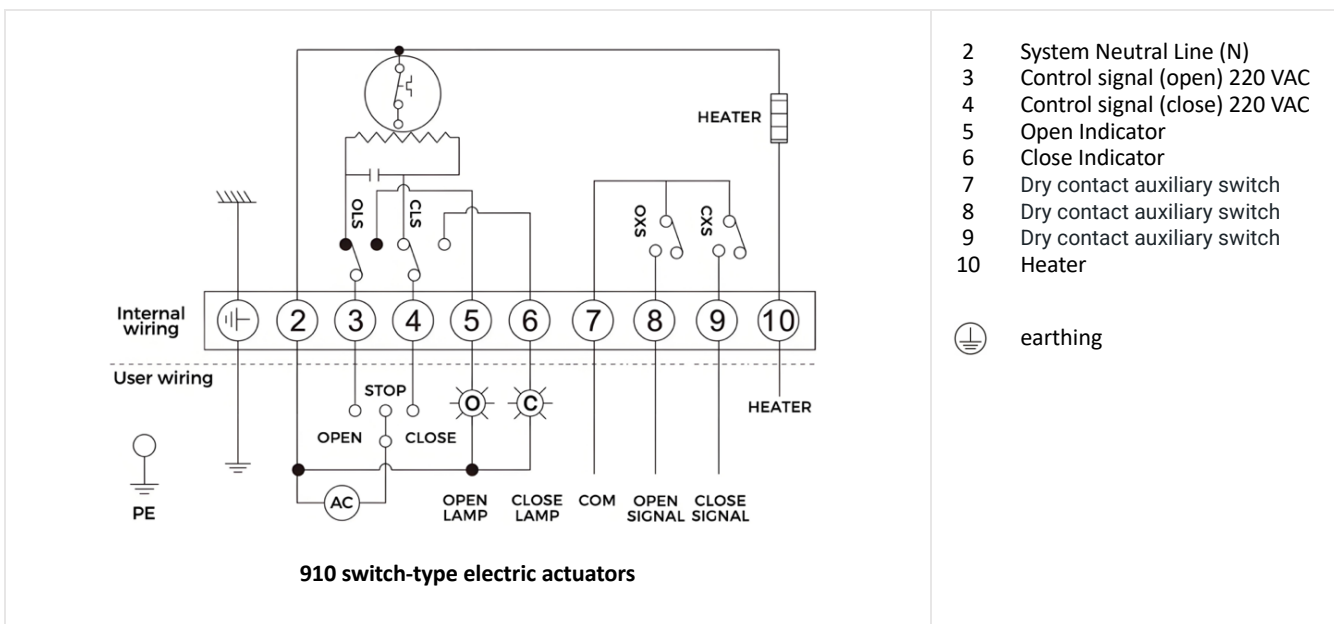
### 3. Valve Connection

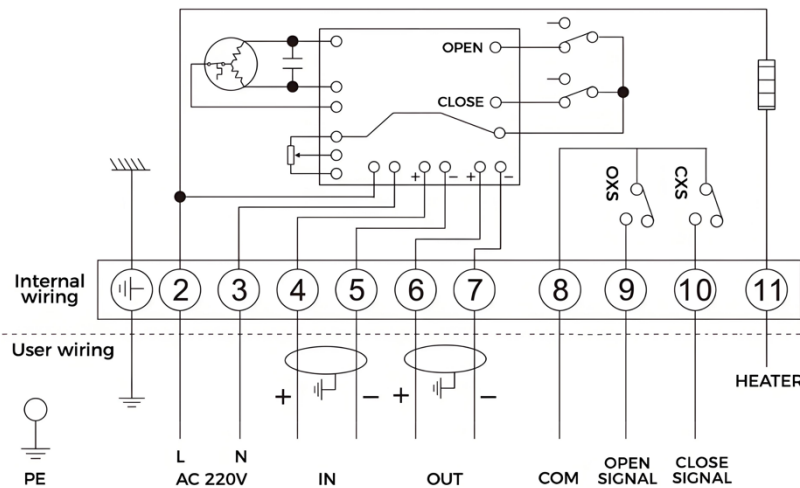


### 4. Wiring



- Please route the power cable and signal cable separately.
- Please choose a cable that is suitable for the inner diameter of the waterproof connector to prevent moisture from entering the actuator from the cable joint and damaging the internal parts.
- After the wiring is completed, it needs to be reviewed, and after confirming that it is correct, cover the actuator wiring cover and tighten the bolts.
- Once wiring is complete, be sure to lock the actuator cable glands to prevent water from entering.
- Make sure the wiring is correct before you can connect the power, short circuits and incorrect wiring can cause permanent damage to the actuator!
- Please pay attention to the switch indication, please do not use brute force on the handwheel/handle when exceeding the fully open and full off position, so as not to cause damage to the actuator mechanism!



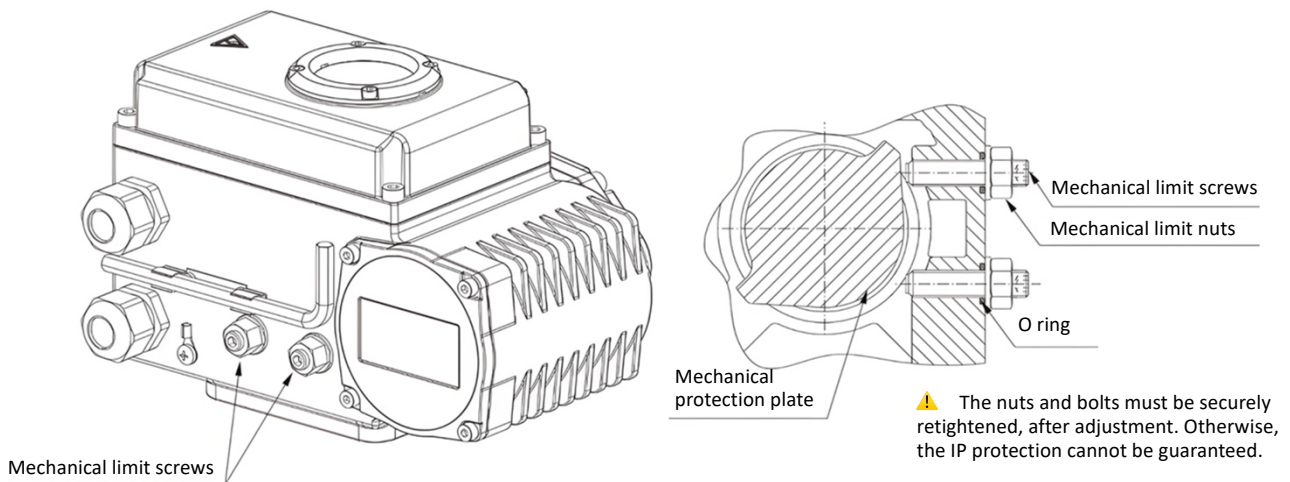


910C adjustable electric actuator

- 2 System Live Wire (L) 220 VAC
- 3 System Neutral Line (N)
- 4 Control Signal 4–20 mA / 0(2)–10 VDC
- 5 Signal Return
- 6 Position Feedback 4–20 mA / 0(2)–10 VDC
- 7 Signal Return
- 8 Dry contact auxiliary switch
- 9 Dry contact auxiliary switch
- 10 Dry contact auxiliary switch
- 11 Heater

earthing

## 5. Mechanical limit adjustment



### Limit adjustment:

1. Use the handle to drive the actuator to the fully closed position (the travel switch will make a "click" sound when it moves);
  2. Loosen the lock nut, rotate the adjustment screw in the clockwise direction to make it contact with the mechanical stop, and then rotate the screw in the counterclockwise direction to make it all closed
- The angular distance of the mechanical limit lag electrical limit at the position is about 2–3 °, and the lock nut is tightened;

**The same is true for the opening limit adjustment**



The mechanical limit position of the actuator must lag behind the electrical limit position, if the mechanical limit is ahead or coincides with the electrical limit, it may cause the motor of the actuator to stall, heat up and even cause the motor to burn out.

## 6. Use and maintenance

Note: The product has passed comprehensive debugging and inspection before leaving the factory.

If you need to readjust, you should follow these steps

1. Install and connect the actuator and the valve correctly;
2. Manual test run:

Take off the dustproof plug on the front cover, insert the attached handle into the hexagonal hole, rotate in the clockwise direction, the valve opening should be reduced. When the valve is in the fully closed position, observe whether the travel switch in the closing direction is in action (the switch will make a "click" sound when the switch moves) and then turn the handle to check whether the mechanical stop touches the adjusting screw; Rotate the handle in the counterclockwise direction, the valve opening should be increased. The same method, check the opening direction travel switch and mechanical stop, after the manual operation is completed, plug the dustproof plug.

3. Electric test run:

Remove the inlet cover and wire correctly according to the circuit diagram.

Power on for trial operation, pay attention to observe whether the actuator and valve are working normally.

### Failures and countermeasures

Fault phenomenon	cause	countermeasure
<b>The actuator does not act</b>	Not plugged in Power	Connect to Power
	The power supply voltage is not right or the voltage is too low	Check whether the power supply voltage is normal
	The wire is broken and the connector is disconnected from the terminal	Connect the wires and connect the fastening terminals correctly
	Overheat protector action (Whether the ambient temperature is too high, whether the valve is stuck)	Reduce the ambient temperature and manually check whether the valve is opening and closing properly
		Reduce the frequency of use
		Overloaded
	The travel switch has been activated	Adjust the travel stop
	The capacitor used in the phase of the motor is damaged	Contact the manufacturer to replace the capacitor
	DC electric actuator diode disconnection	Contact the manufacturer to replace the diode
<b>The switch indicator is not on</b>	The indicator light is broken	Replace the indicator
	The travel switch is not operating properly	Replace the travel switch
<b>When running to the limit position, the motor cannot be stopped</b>	The travel switch is not operating properly	Replace the travel switch
	The three-phase AC power supply is reversed	Adjust the phase sequence of the three-phase AC power supply
	The travel switch is connected to the control loop incorrectly	Adjust the wiring
	Mechanical limit ahead of electrical limit action	Readjust the mechanical stop according to the adjustment instructions for the mechanical stop
	DC electric actuator diode disconnection	Contact the manufacturer to replace the diode
<b>Water ingress of the actuator</b>	The Denso sight glass is broken	Please contact the manufacturer for repair
	The bolts of the upper cover, incoming cover, and front cover of Denso are not tightly locked	
	The inlet cable is not standardised or the inlet port is not waterproof according to the requirements of the manual	