



QUANTITATIVE CONTROL SYSTEM

PRECISION INSTRUMENTS
ACCURATE MEASUREMENT



ABOUTUS Introduction

Anhui Jujie Automation Technology Co., Ltd. is located in Wuhu, Anhui Province, the city of makers. After ten years, Jujie Automation has continued to deepen its presence in the field of industrial automation. The annual production and sales volume of its newly launched liquid turbine flowmeters is over 10,000 units, and its paperless recording instruments have obtained multiple patent certifications and third-party certification tests. Jujie Automation carefully grasps every detail and is committed to providing users with considerate products and services.

Certificate

Since its establishment, the company has applied for more than 10 patents, 8 software copyrights, and 3 registered trademarks. In 2023, the company passed the honorary titles of National Science and Technology Small and Medium Enterprises and National High-tech Enterprises. The company has also passed various certifications such as SGS, TUV, CE, CPA, ISO9001, ISO14001, ISO45001 and explosion-proof certifications for multiple products, laying a solid foundation for the development of the brand.



Factory

The 2,500-square-meter factory is equipped with various testing and calibration devices to ensure the quality of our products. It also has professional production and assembly lines and a complete warehousing system to protect our products.



Liquid flow calibration device +

Small liquid flow calibration device +

Gas flow calibration device +



Workshop scene +



Adequate stock and fast delivery +



Quantitative Control System

Equipped with various sensors to integrate flow and control quantity +



Qualification



Touch Screen Quantitative Control Box



Touch screen quantitative control system



PLC quantitative control system

The quantitative control system is a flow measurement control system that is matched with various flow transmitters, sensors (such as turbine, vortex, electromagnetic flowmeters), solenoid valves, and pumps, and can integrate the flow and control the quantitative quantity.

7-inch touch screen operation, dynamic system display, simple operation, quantitative accuracy can reach 0.5 level, with built-in safety protection function; used in the occasions where quantitative packaging and control are required in the petroleum, chemical, pharmaceutical and food industries: quantitative punching/adding, loading, batching, discharging, dividing, gasification, etc.

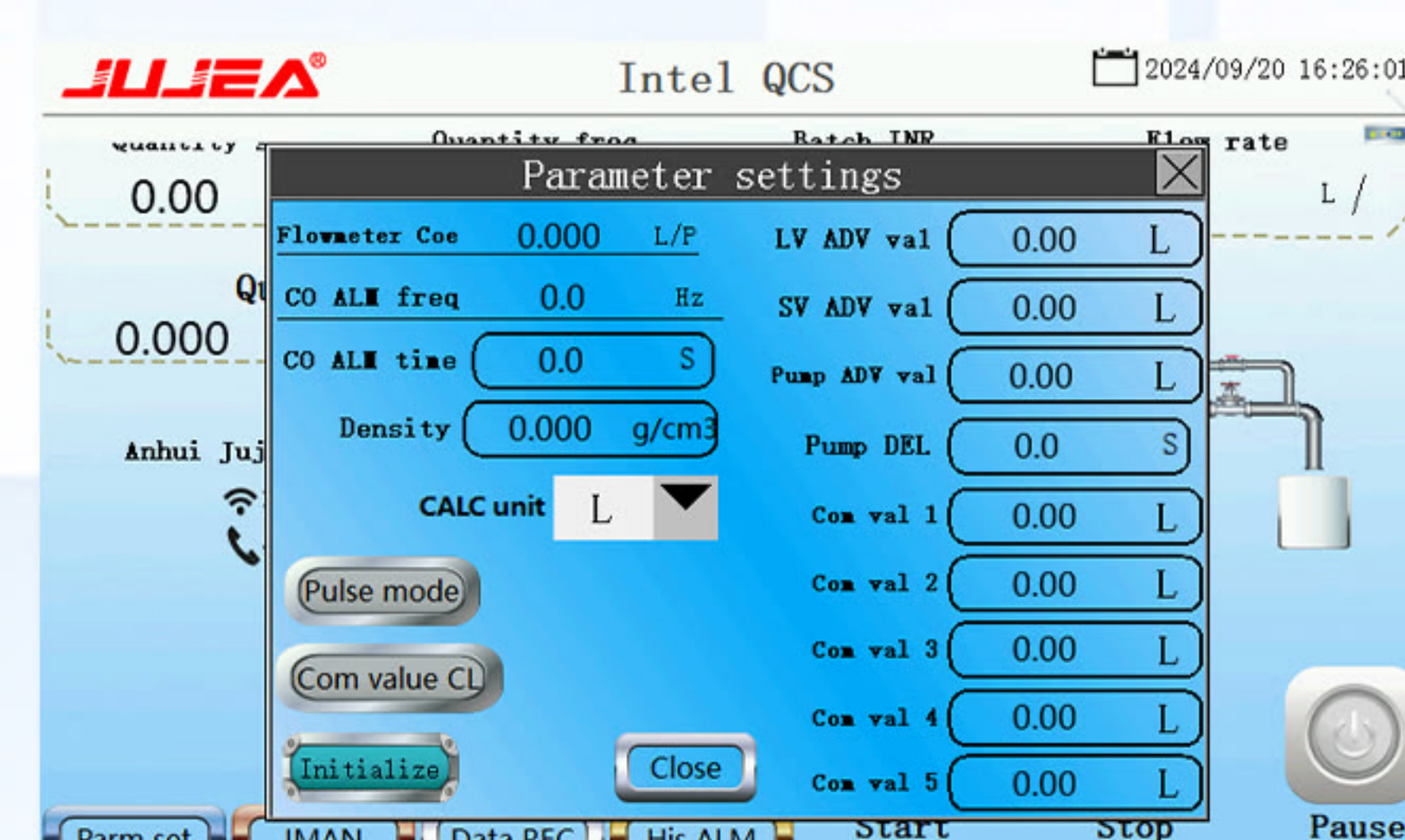
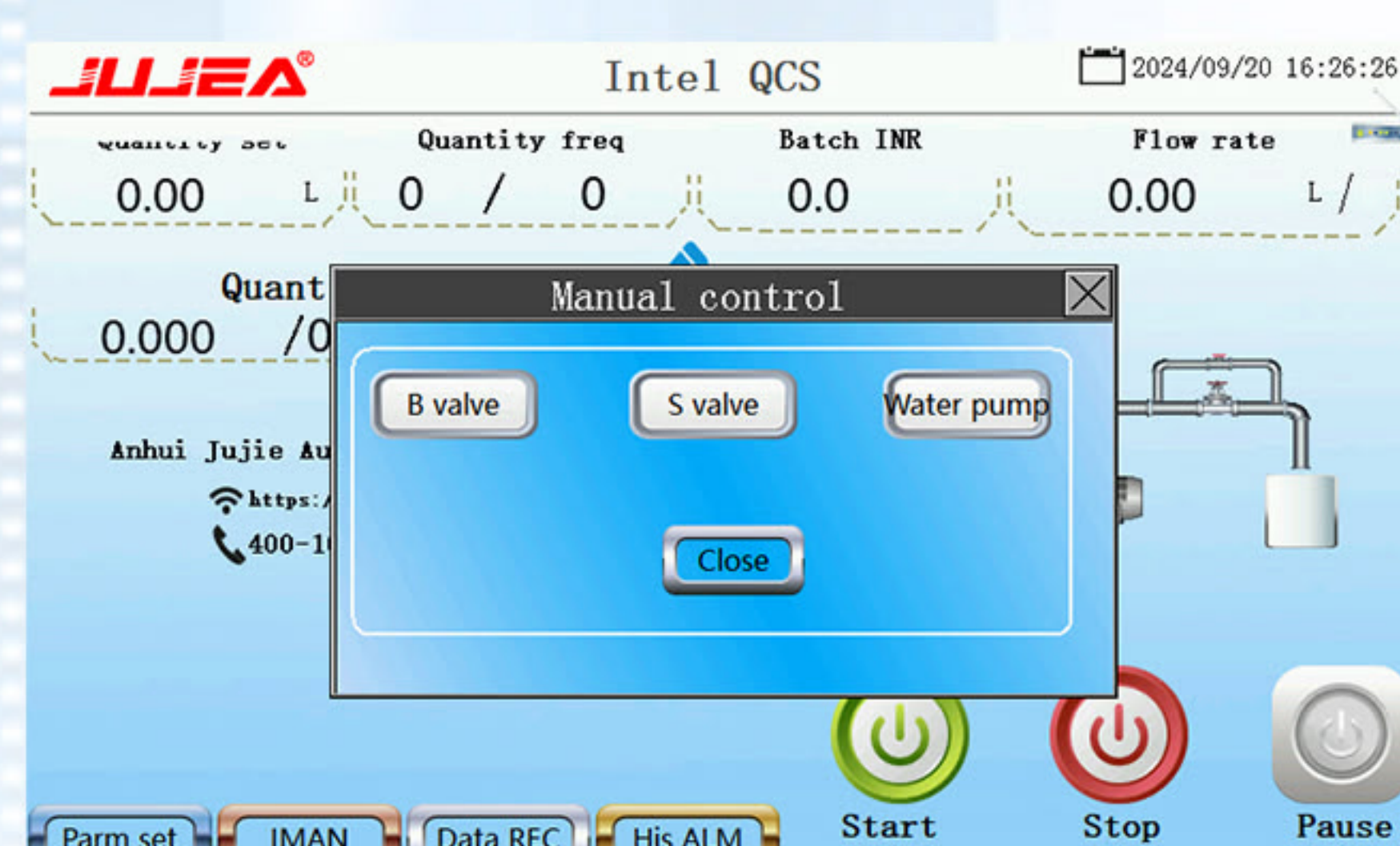
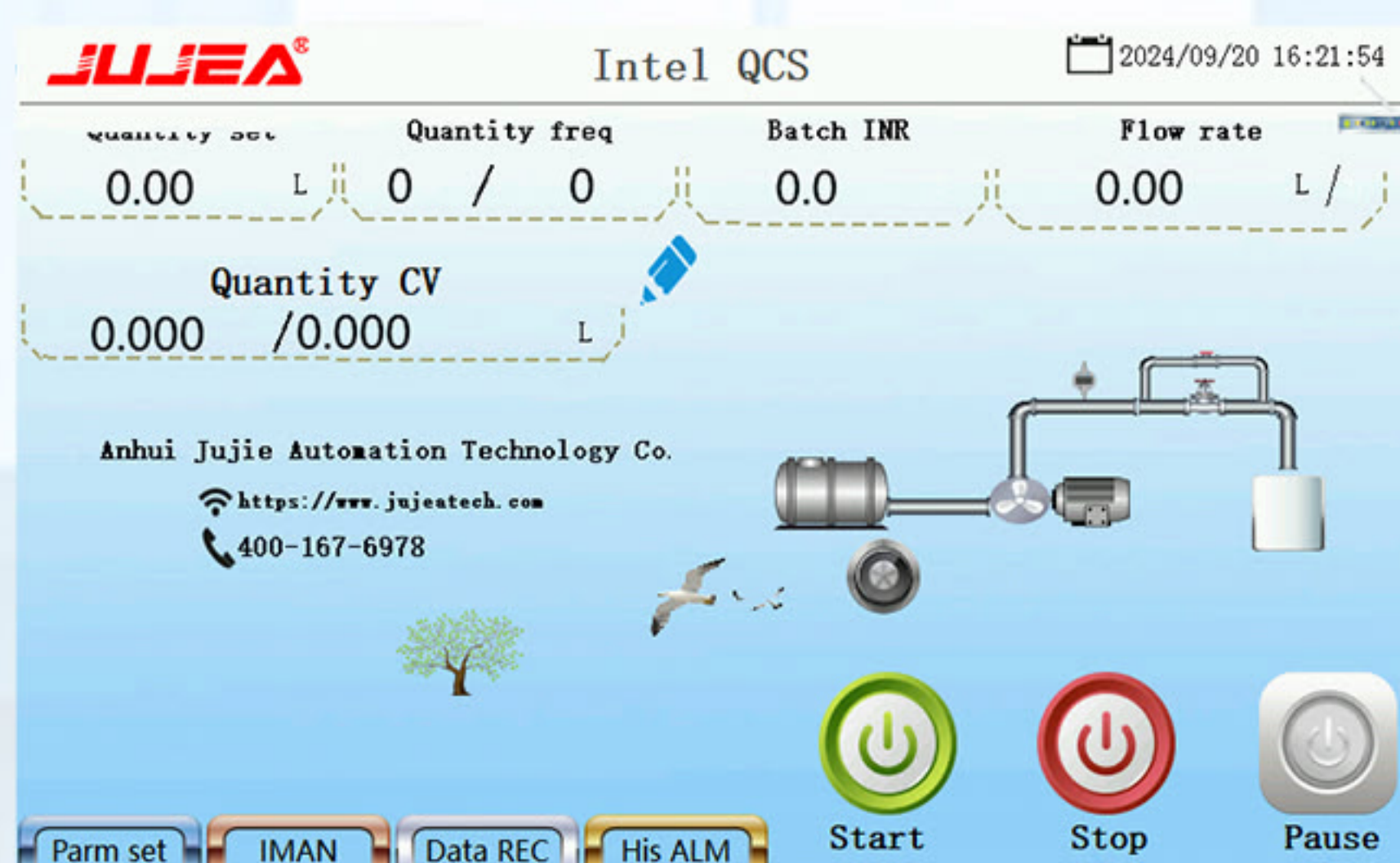
Features

- ▲ Applicable to flow display, control and quantitative delivery of various liquids, single or mixed gases and steam;
- ▲ Input signals from various flow sensors (e.g., vortex, turbine, electromagnetic, Roots, oval gear, dual rotor, thermal, etc.).
- ▲ Flow input channel: can receive frequency pulse signals, with quantitative accuracy up to 0.5 level;
- ▲ Transmitter +24V DC can be provided;
- ▲ Quantitative countdown display;
- ▲ Safety protection function, when the flow meter, solenoid valve, or pump fails, it will automatically alarm and shut down;
- ▲ Password setting can prevent unauthorized personnel from changing the set data;
- ▲ RS-485 RTU-Modbus communication protocol.

Product Model

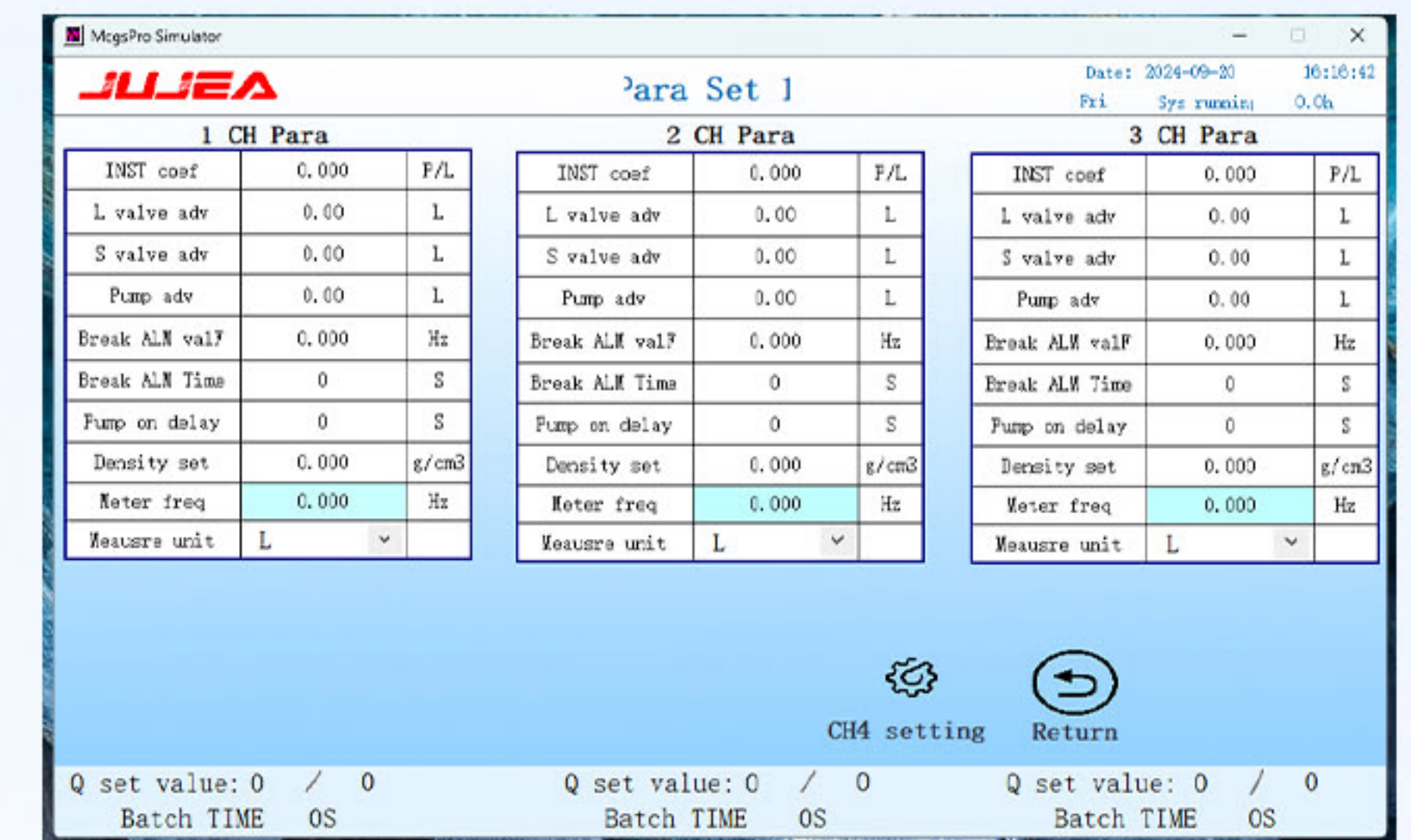
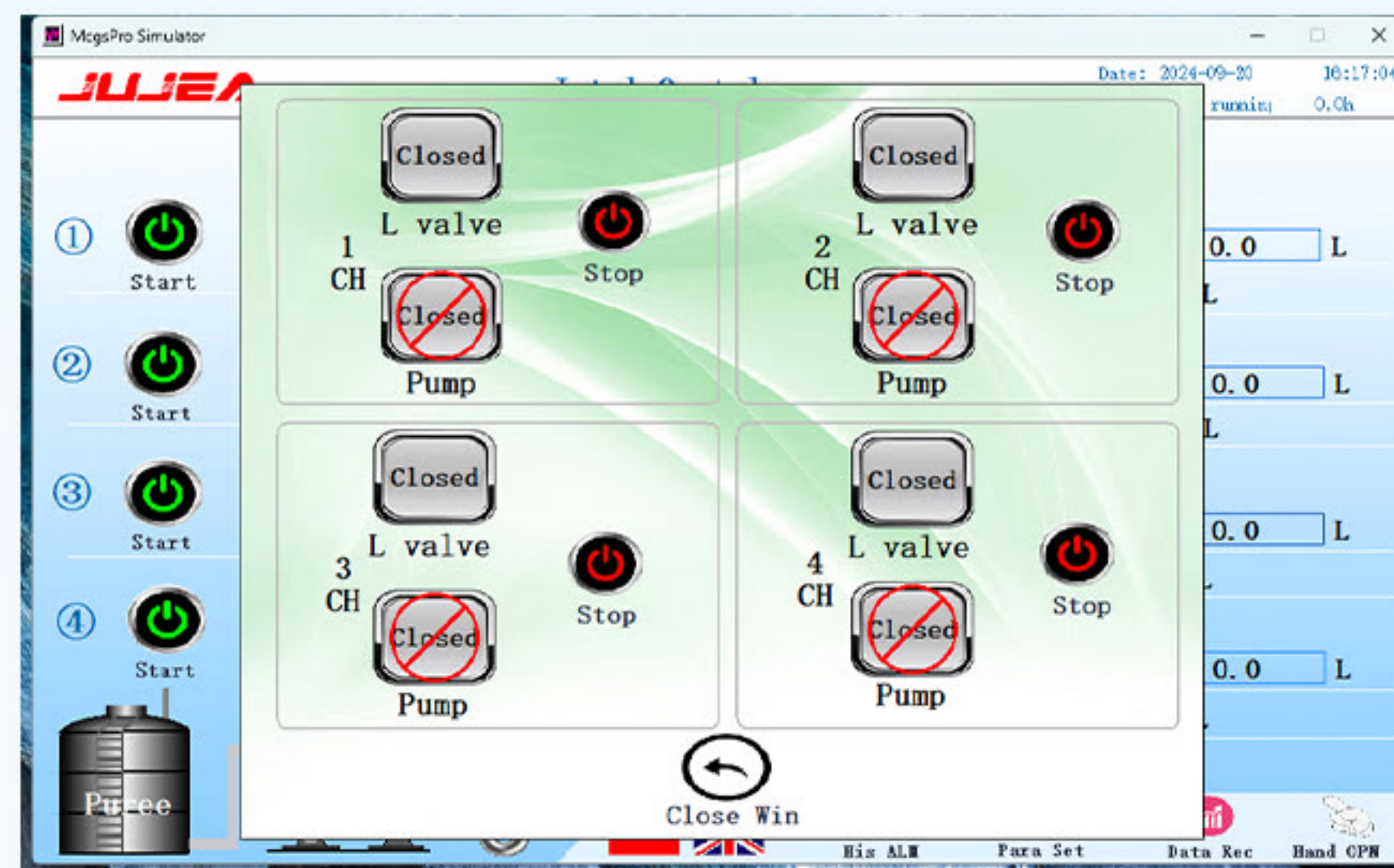
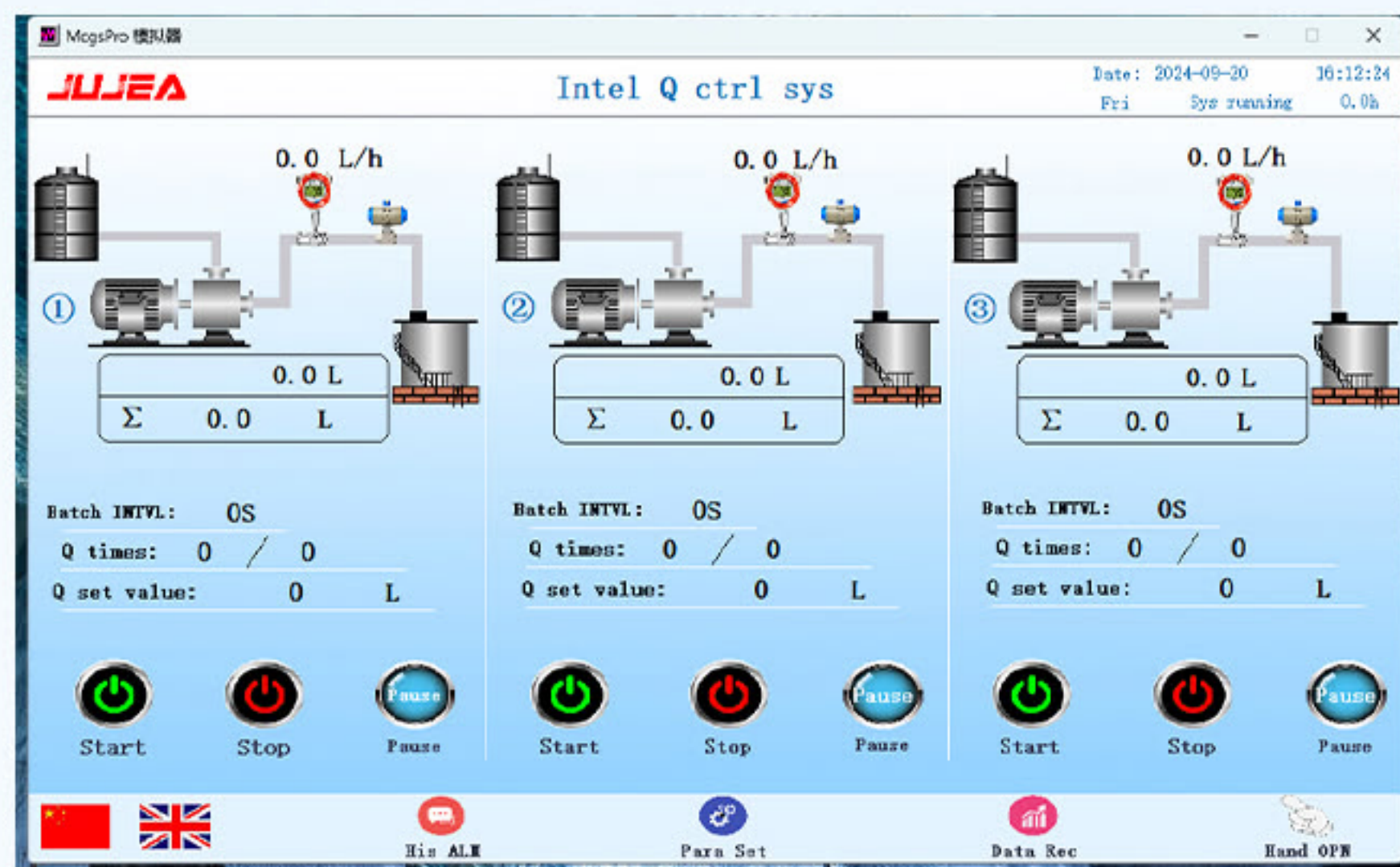
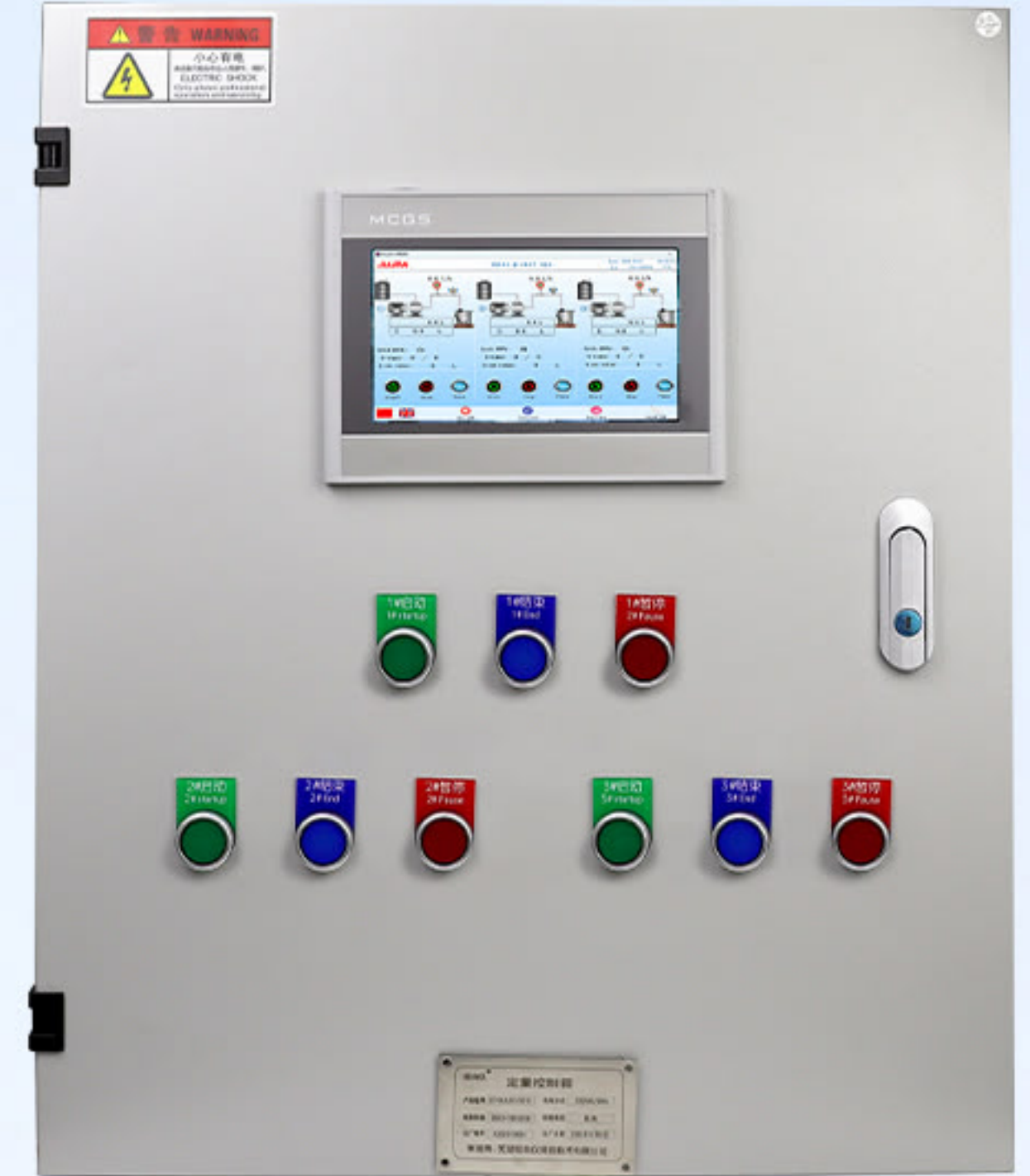
Touch screen quantitative control box

Only one quantitative measurement is performed, with pulse signal output, and the quantitative accuracy can reach 0.5 level; it has built-in safety protection function (if the flow meter or solenoid valve is damaged, it will automatically alarm and shut down; liquid level shutdown function is optional); 7-inch touch screen, dynamic display of system diagram, alarm display, countdown display; direct input of quantitative value and quantitative number, simple operation; manual and automatic control of pump valve start and stop.

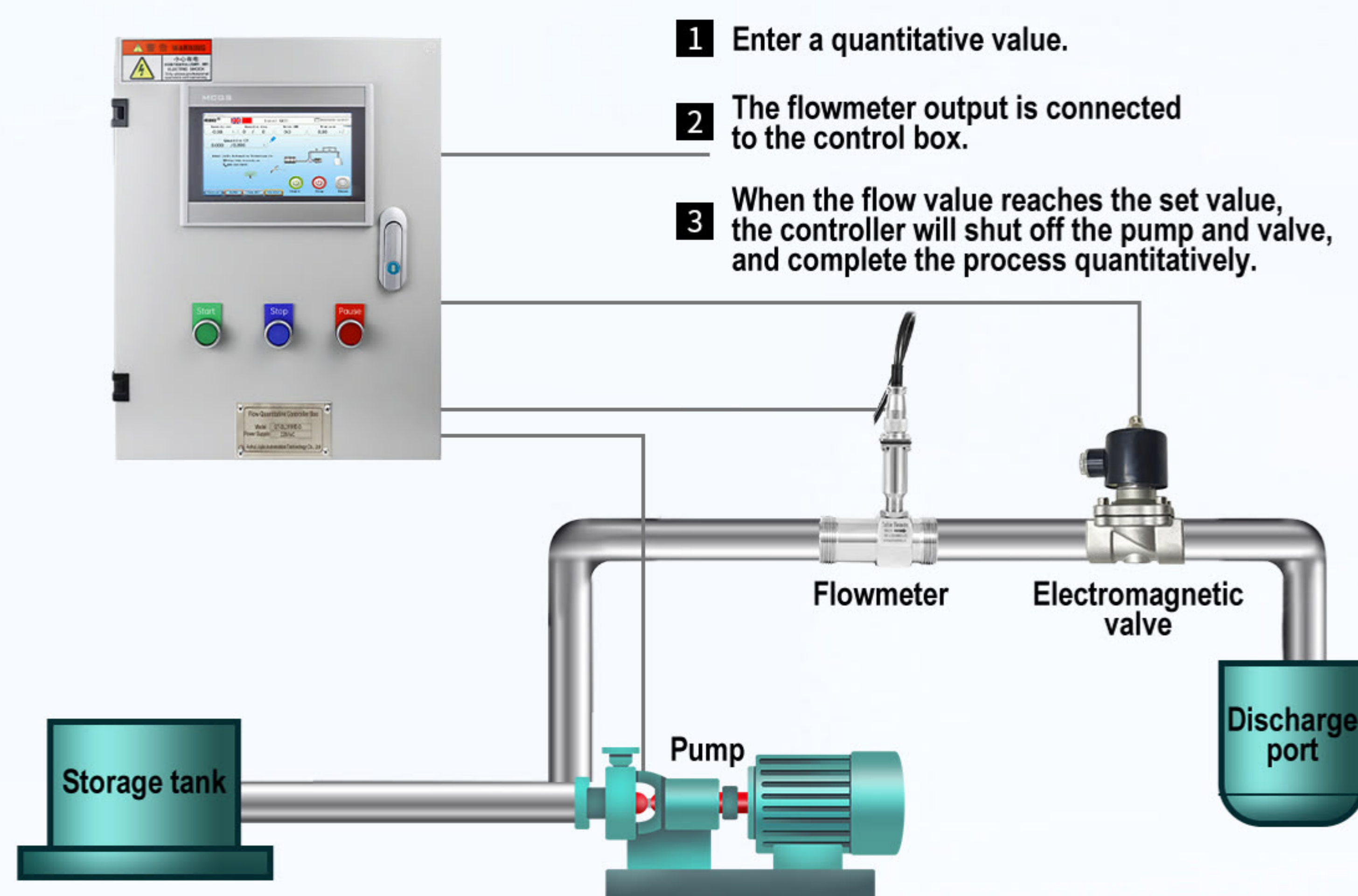


PLC quantitative control box

Applicable to two-way, three-way, four-way...N-way quantitative systems, powerful functions, high flexibility, support customization; pulse signal output, quantitative accuracy can reach 0.5 level; 7/10/15-inch touch screen operation, direct output of quantitative value and quantitative times, simple operation, manual/automatic control of pump valve start and stop.



Schematic Diagram of Quantitative Control System



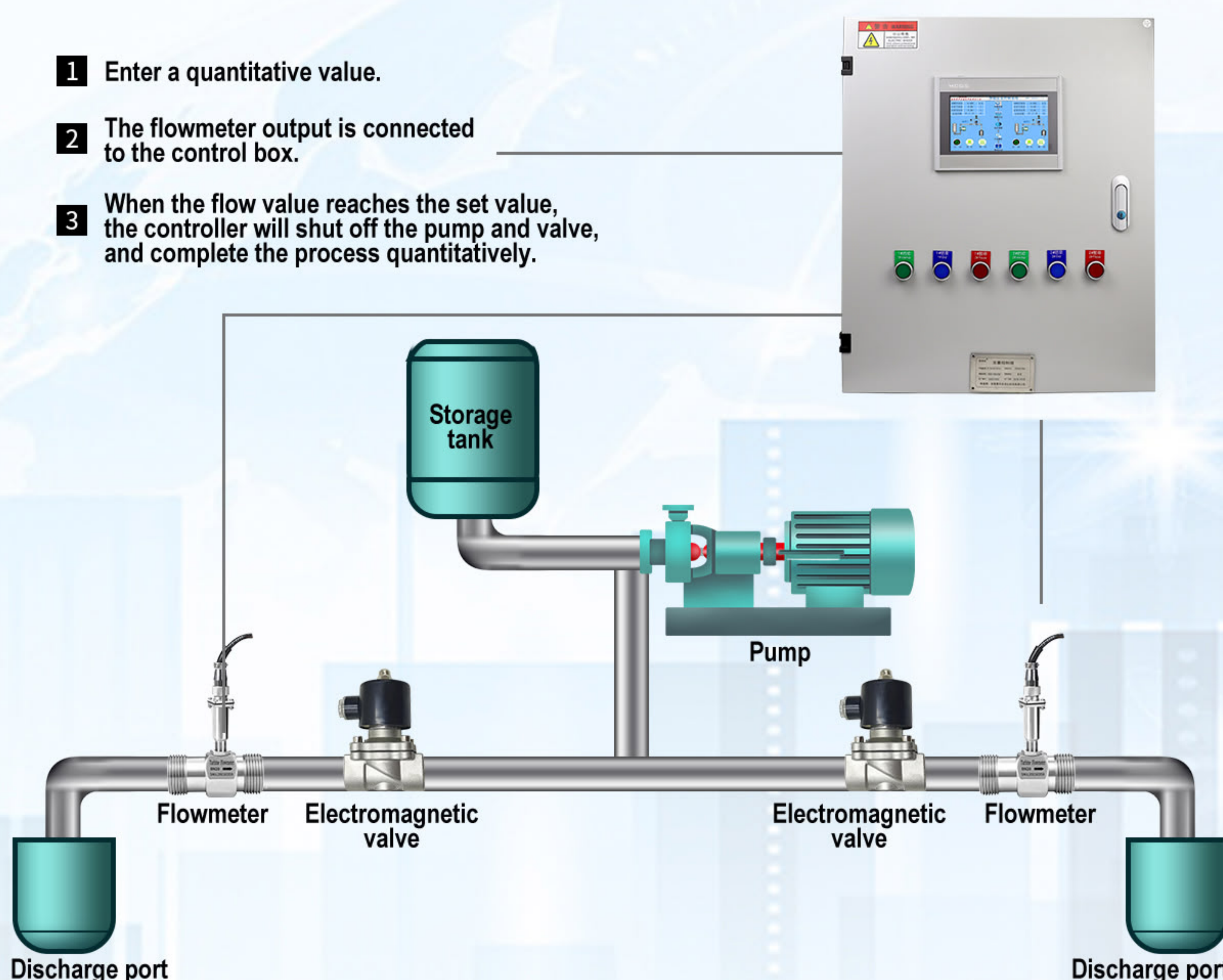
Schematic diagram of quantitative control system

Control pump

Control valve

Control pump + valve

Press the start button of the instrument, the water pump and the solenoid valve will open at the same time, the liquid will flow through the flow meter, and the flow meter will transmit the flow signal to the fixed controller. When the set value is reached, the fixed controller will cut off the power supply of the AC contactor and the solenoid valve, and the water pump and the solenoid valve will be closed, and the quantitative measurement will be completed in one time.



Two-way valve quantitative control system schematic

Support customization

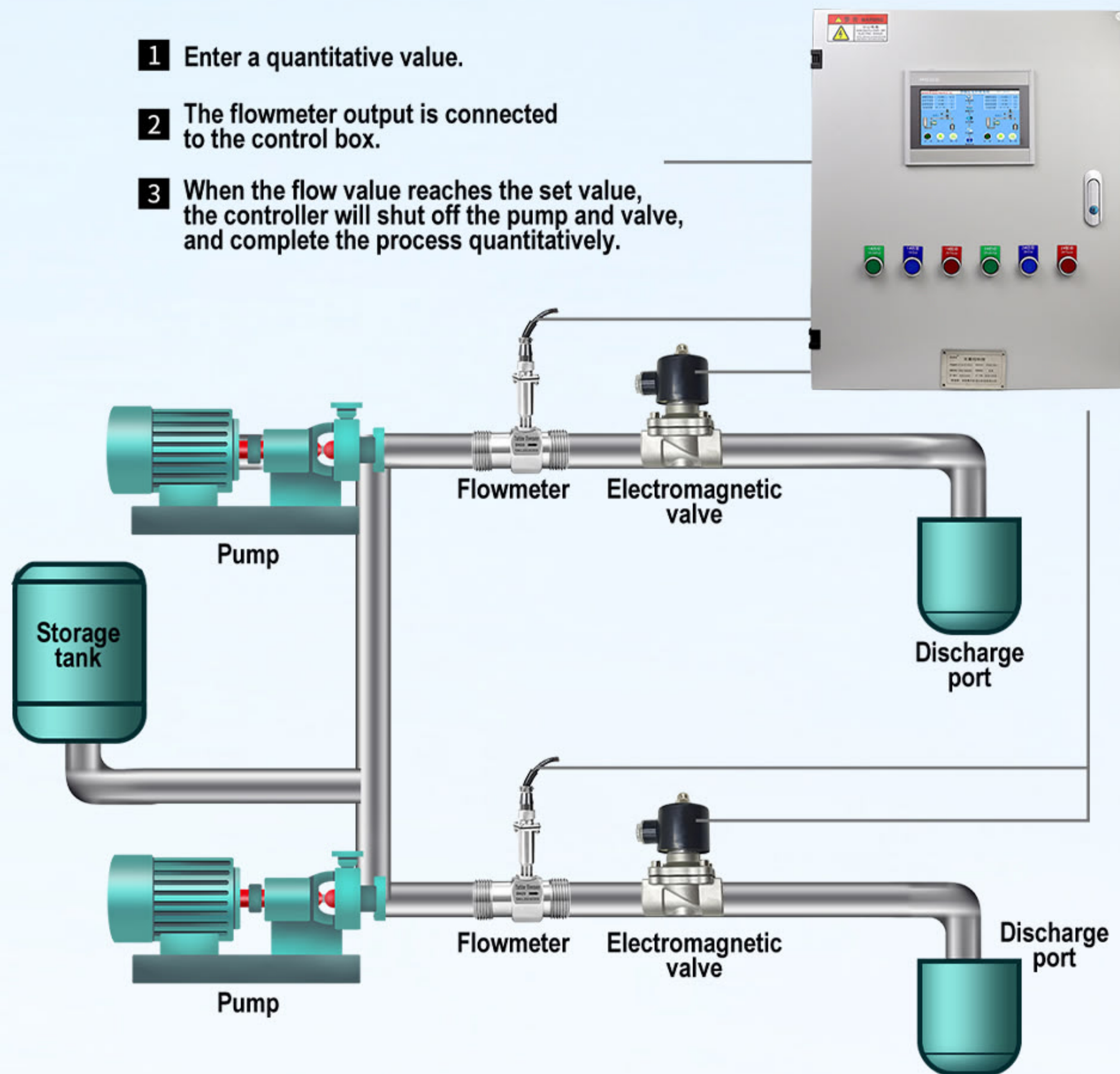
Control pump

Control valve

Control pump + valve

Press the start button of the instrument, the solenoid valve opens at the same time, the liquid flows through the flow meter, and the flow meter transmits the flow signal to the fixed controller. When the set value is reached, the fixed controller cuts off the power supply of the AC contactor and the solenoid valve, and the solenoid valve closes, and the quantitative measurement is completed in one time.

- 1 Enter a quantitative value.
- 2 The flowmeter output is connected to the control box.
- 3 When the flow value reaches the set value, the controller will shut off the pump and valve, and complete the process quantitatively.



Control schematic diagram of two-way valve and pump quantitative control system

Support customization

Control pump

Control valve

Control pump + valve

Press the start button of the instrument, the solenoid valve and the water pump open at the same time, the liquid flows through the flow meter, and the flow meter transmits the flow signal to the fixed controller. When the set value is reached, the fixed controller cuts off the power supply of the AC contactor and the solenoid valve, and the water pump and solenoid valve are closed, and the quantitative measurement is completed in one time.

JJ-DL3100D Quantitative Control System



Large control box (control pump + valve, control pump)



Small control box (single control valve)

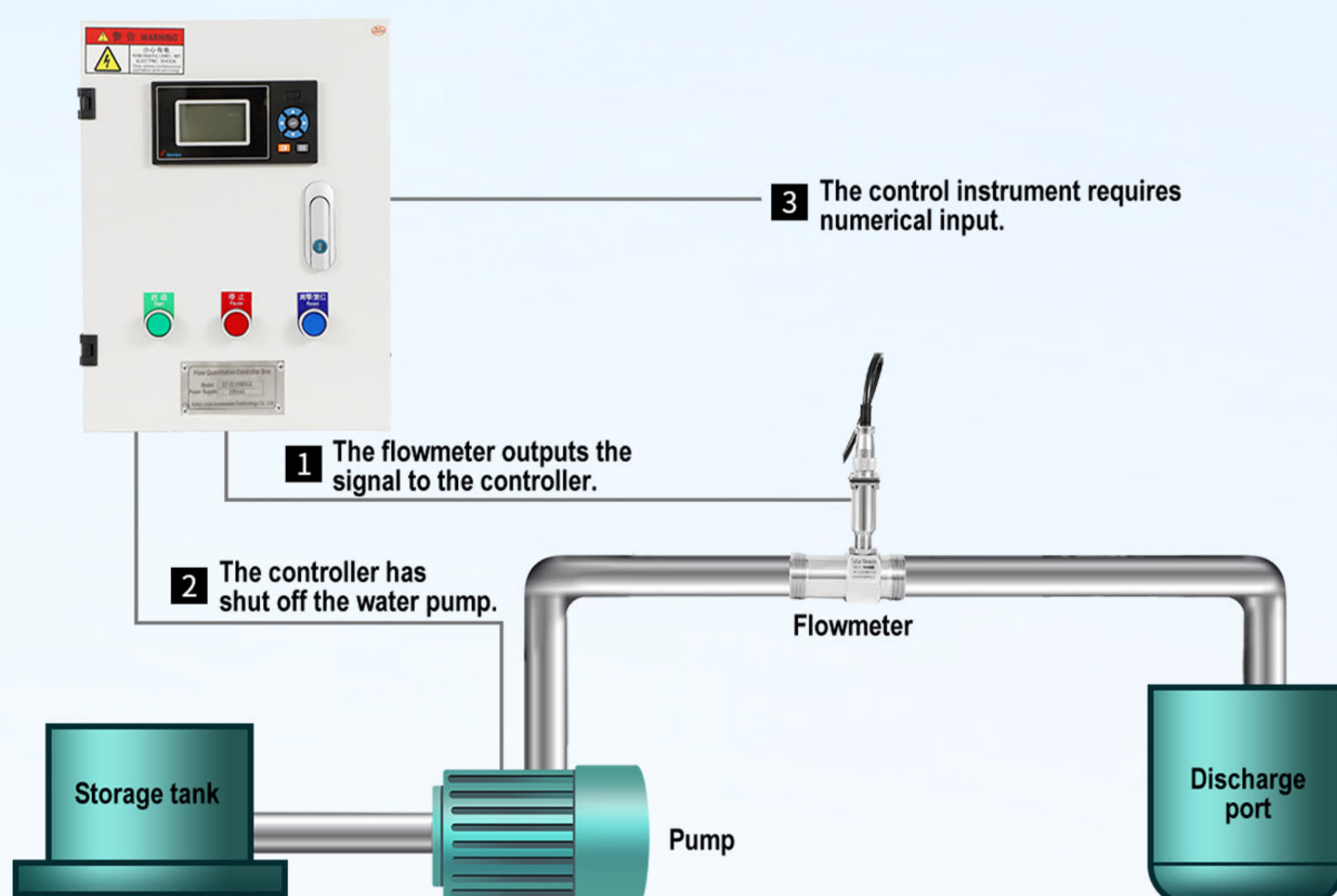
The quantitative control system is a flow measurement control system based on an ARM microprocessor and is equipped with various flow transmitters, sensors (such as turbine, vortex, electromagnetic flowmeters) and solenoid valve pumps, and can integrate the flow and control the quantitative quantity.

The quantitative controller has a good human-machine interface and soft and hard protection measures, simple control operation, reliable safety performance, excellent anti-interference performance, and good stability. It is used in the occasions where quantitative packaging and control are required in the petroleum, chemical, pharmaceutical and food industries: quantitative punching/adding, loading, batching, discharging, dividing, aeration, etc.

Technical Parameters

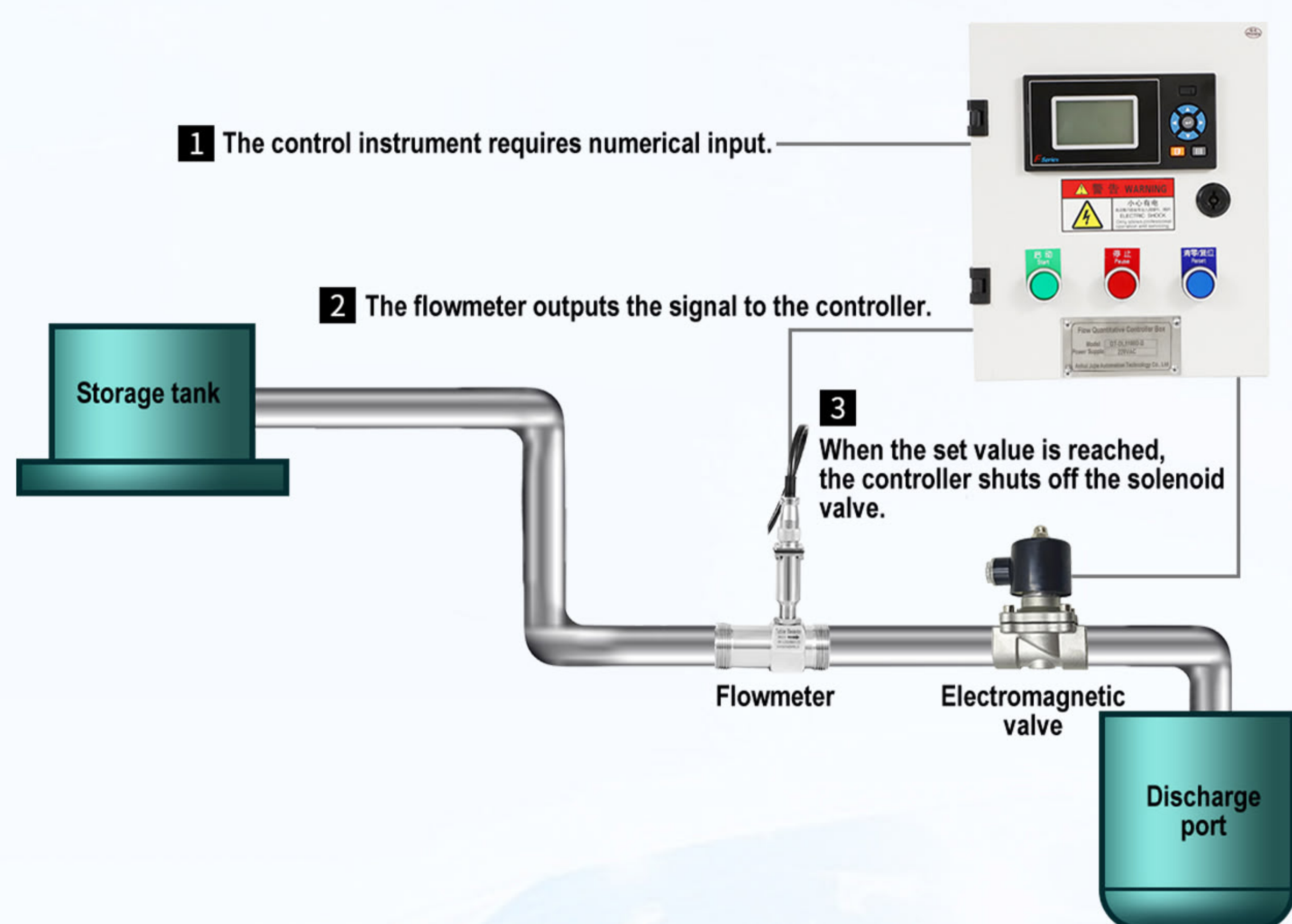
Display	128*64 dot matrix gray-white screen LCD display, display accuracy: $\pm 0.2\%$ F.S.
Processor	Adopts ARM Cortex-M3 32-bit RISC core
Input Function	Flow channel: analog signal: 4-20mA, 0-10mA and other signals; frequency: Fr (range: 0-5000Hz)
	Temperature channel: 0-10mA, 4-20mA, Pt100 and other signals
	Pressure channel: 0-10mA, 4-20mA and other signals
Output Function	Power distribution output: 1×12VDC & 2×24VDC for sensors, max 30mA per channel.
	Transmitter output: Support 1 standard current 4-20mA transmitter output, 500Ω max load.
	Relay output: Support 3 relay outputs, contact capacity 3A@250VAC/3A@30VDC
Communication Interface	Provide RS232C and RS485 communication interfaces, support Modbus RTU Protocol
Print Interface	RS232C directly connects to micro printer, baud rate 1200
Power Supply	220VAC power supply, 24VDC power supply, 12VDC power supply
Working Environment	Temperature: 0~50℃ Humidity: 0~85%R.H Altitude: <2000 meters
Instrument Net Weight	≤1.0Kg
Large Control Box Size	300*400*200mm
Small Control Box Size	200*300*150mm

Schematic Diagram of Quantitative Control System



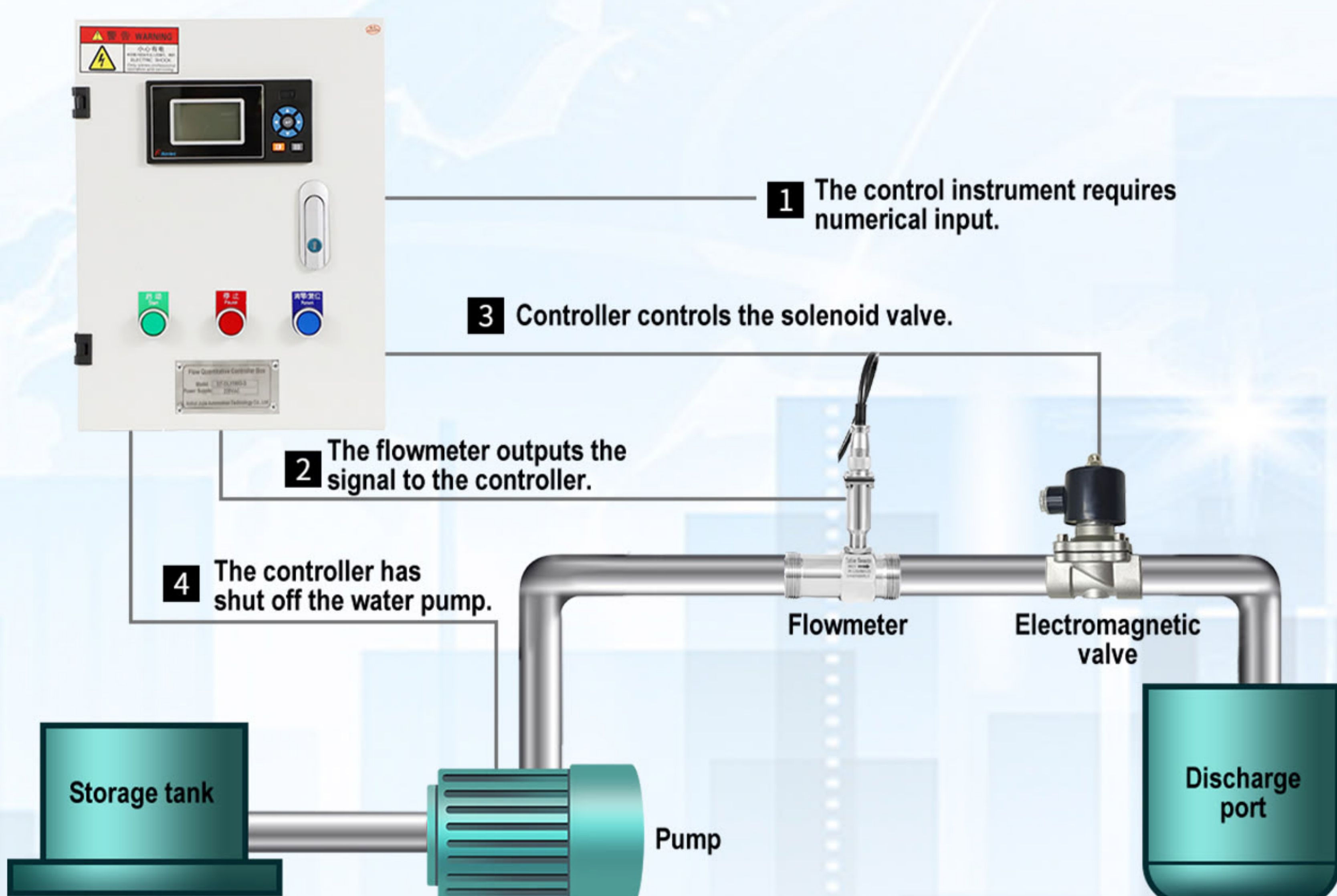
Control the start and stop of the pump to control the flow

Press the start button of the instrument, the water pump is powered on and starts to fill water. The liquid flows through the flow meter, and the flow meter transmits the flow signal to the fixed controller. When the set value is reached, the fixed controller cuts off the power supply of the water pump indirectly by cutting off the power supply of the AC contactor. The water pump stops working and the quantitative operation is completed in one time.



Start and stop control flow of control valve

Press the start button of the instrument, the solenoid valve opens, the liquid flows through the flow meter, the flow meter transmits the flow signal to the fixed controller, and when the set value is reached, the fixed controller cuts off the power supply of the solenoid valve and closes the solenoid valve, and the quantitative measurement is completed in one time.



Control the start and stop of pumps and valves to control flow

Press the start button of the instrument, the water pump and the solenoid valve will open at the same time, the liquid will flow through the flow meter, and the flow meter will transmit the flow signal to the fixed controller. When the set value is reached, the fixed controller will cut off the power supply of the AC contactor and the solenoid valve, and the water pump and the solenoid valve will be closed, and the quantitative measurement will be completed in one time.

Selection Instructions

JJ-DL3100D Selection of Quantitative Control System					
Model			Description		Remarks
JJ - DL3100D - □ - □ - □ - □			JJ - DL3100D series quantitative control system		JJ31DF quantitative controller
Communication Output	C4		RS485 communication interface		
Transmitter Output		L1	1 analog output (4-20mA)		
Power Supply		V0	220VAC (total power consumption ≤8W)		Power supply by transformer
		V1	24VDC (total power consumption ≤10W)		Power supply by module
		V2	12VDC (total power consumption ≤10W)		Power supply by module
Control Box		D	Large control box		Default iron case (stainless steel optional)
		X	Small control box		Default iron case (stainless steel optional)
		EDX	Explosion-proof large control box		
		EXX	Explosion-proof small control box		

JJ-DL3200D Quantitative Control System



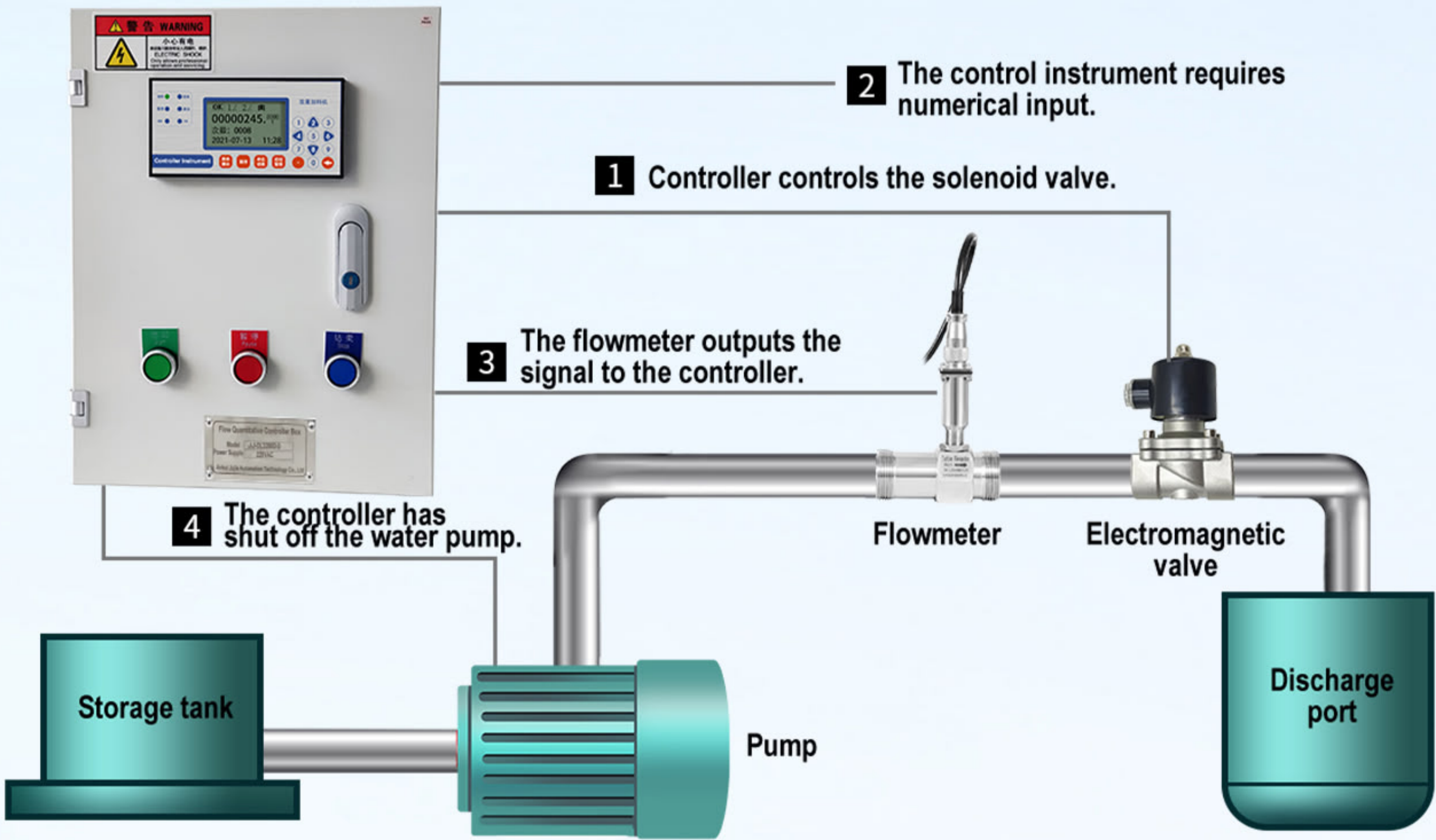
The quantitative control system is a flow measurement control system based on an ARM microprocessor and is equipped with various flow transmitters, sensors (such as turbine, vortex, electromagnetic flowmeters), solenoid valves, and pumps, and can integrate the flow and control the quantitative.

The quantitative controller has a good human-machine interface and soft and hard protection measures, simple control operation, reliable safety performance, excellent anti-interference performance, and high stability. It is used in the occasions where quantitative packaging and control are required in the petroleum, chemical, pharmaceutical and food industries: quantitative punching/adding, loading, batching, discharging, dividing, aeration, etc.

Features

- ▲ Suitable for flow display, control, and quantitative delivery of various liquids, single or mixed gases and steam;
- ▲ Input signals from various flow sensors (e.g., vortex, turbine, electromagnetic, Roots, oval gear, dual rotor, thermal, etc.).
- ▲ Flow input channel: can receive frequency signals and various analog current signals;
- ▲ Pressure, temperature input channel: can receive various analog current signals;
- ▲ The transmitter provides +24V DC and +12V DC power with short-circuit protection, simplifying systems and reducing costs.
- ▲ Fault tolerance: Use manual setpoints for compensation when temperature/pressure/density signals are abnormal.
- ▲ Flow retransmission function: output current signal, update cycle 1 seconds to meet the needs of automatic control;
- ▲ The instrument clock and printing functions provide convenience for measurement management;
- ▲ The rich self-test and self-diagnosis functions make the instrument easier to use and maintain;
- ▲ The three-level password setting can prevent unauthorized personnel from changing the set data;
- ▲ No internal potentiometers or adjustable components, enhancing vibration resistance, stability, and reliability;
- ▲ RS-485 communicates with the host computer for data;
- ▲ Powerful storage function: 4000 material delivery records can be stored cyclically;

Schematic Diagram of Quantitative Control System



Control pump

Control valve

Control pump + valve

Press the start button of the instrument, the water pump and the solenoid valve will open at the same time, the liquid will flow through the flow meter, and the flow meter will transmit the flow signal to the fixed controller. When the set value is reached, the fixed controller will cut off the power supply of the AC contactor and the solenoid valve, and the water pump and the solenoid valve will be closed, and the quantitative measurement will be completed in one time.

Technical Parameters

Input Signal	Analog Input		Pulse Input	
	Thermocouple: K, E, B, J, N, T, S;		Waveform: rectangular, sine and triangle wave	
	Resistance: Pt100		Amplitude: greater than 4V	
	Current: 0~10mA, 4~20mA		Frequency: 0~10KHz (or according to user requirements)	
Output Signal	Analog output	Communication output	Switching output	Feed output
	DC 0~10mA (load resistance ≤750Ω)	Interface mode RS232C, RS485;	Relay output With hysteresis	DC24V Load≤100mA
	DC 4~20mA load resistance ≤500Ω	Baud rate—600.1200 Set 8-bit data	AC220V/DC24V (resistive load)	DC12V Load≤200mA
Display Content	• Large 128×64 dot matrix LCD graphic display with backlight;			
	• Total cumulative flow • Instantaneous flow • Dispensing count • Medium temperature • Flow value (DP current, frequency)			
	• Clock;			
Control/Alarm	Relay outputs for main valve, small valve, and pump, with pump start delay and valve open/close advance functions.			
Print Control	Directly connect to serial thermal Chinese printer to achieve instant printing;			
Protection Method	• Power-off protection • Undervoltage auto-reset • Abnormal auto-reset • Short-circuit protection.Password-protected data.			
Usage Environment	Ambient temperature: -20~60℃ Relative humidity: ≤85%RH, avoid strong corrosive gas			
Power Supply	Conventional type: AC 220V % (50Hz±2Hz); Special type: AC 80~265V—switching power supply; DC 24V±1V			
Control Box Size	300*400*200mm			

Selection Instructions

JJ-DL3200D Selection of 9-Key Quantitative Control System				
Model		Description		Remarks
JJ-DL3200D - □ - □ - □ - □ - □		GT-DL3200D series quantitative controller		9-button operation
Communication Output	C4	RS485 communication interface		
Transmitter Output		L1	1 analog output (4-20mA)	
Power Supply		V0	220VAC (total power consumption ≤8W)	Powered by transformer.
		V1	24VDC (total power consumption ≤10W)	Power the unit with modular power supply.
		V2	12VDC (total power consumption ≤10W)	Power the unit with modular power supply.
Control Box		D	Large control box (default iron material)	Customizable stainless steel/explosion-proof cases.

Application

The quantitative control system produced by our company consists of a quantitative control box, a solenoid valve, a flow sensor and a pump. The quantitative control system can achieve quantitative water addition, quantitative material delivery, quantitative batching, quantitative canning, etc. by controlling the pump, solenoid valve, flow meter separately or controlling the pump and solenoid valve at the same time. Features: multiple commonly used quantitative values can be set, one-button start and stop, simple operation, remote control; equipped with various sensors, suitable for industrial quantitative occasions.

Common Quantitative Functions

Add water quantitatively

Quantitative canning

Dosing

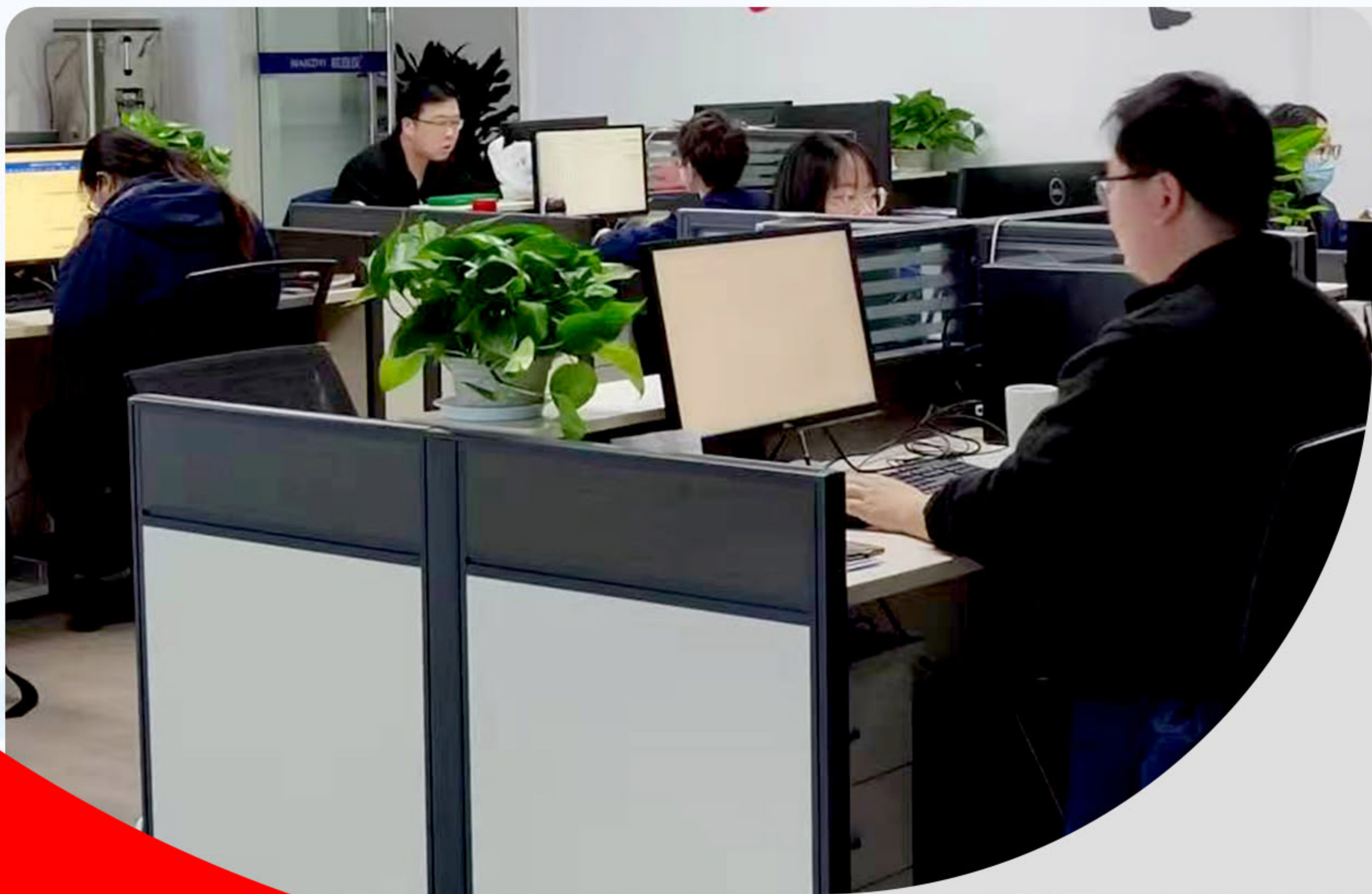
Quantitative irrigation

Quantitative delivery

More features consulting engineers

Service

Jujie Automation has a complete after-sales system. We carefully grasp every detail from pre-sales, sales and after-sales, and are committed to providing users with better products and better service-oriented enterprises. Honesty, dedication, professionalism and focus. Service creates value. Jujie Automation is willing to work hand in hand with you for win-win cooperation!



Service system

Service System

Professional engineer service system, 7*16H online, to help you solve various product installation, measurement interference, operation and use problems. You can contact customer service through multiple platforms such as the company's official website and company stores, or make an appointment with engineers for on-site guidance, training, etc.

Online Contact

Telephone Contact

Video Guidance

Reservation Door

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