

DLGK-LL101

Flow Process Control Training Equipment

IV. System Configuration

The training device consists of a control cabinet and process control unit. System consisting of two power branches, one is control circuit, another one is secure protection circuit. The control circuit is composed of water tank, ball valve, filters, three-phase magnetic drive pump, flow sensor.

The security protection circuit is composed of water tank, ball valve, filters, three-phase magnetic drive pump, pressure gauge, pressure relief valve.

The system is driven and controlled by Siemens converter. The first circuit is basic control circuit, the second circuit is secure protection circuit, when the pressure reaches a certain value, the maximum value over the pressure relief valve, the second circuit open automatically, to reduce the pressure value of the first pipeline to ensure that the device does not damaged.

1. Controlled object

The water tank is made of stainless steel, fully able to meet the needs of the experiment, and there are sensors to detect high level and low level to ensure water tank maintained at the proper height. Pipeline: The complete system pipeline is composed by stainless steel pipes and high quality ball valve, to avoid the possibility of piping systems against rusty. Improve the life of the experimental apparatus. All pipe joints using this device quick connector for easy connection.

2. Detecting device

Turbine Flow Sensor: The training device uses a flow sensor to measure liquid flow. The power supply is DC24V, flow range 0 ~ 200L/min.

Wiring: V +: 4-20mA positive end; V - : 4-20mA negative end.

3. Actuator

Frequency converter: This device uses inverter MICROMASTER V20, support switching value signal, analog value signals and communication control, AC380V inverter output is used to drive magnetic drive pumps.

Pump: This device uses magnetic drive circulation pump, model MP-120R-380V, maximum lift is 10.5 meters and a maximum flow rate is 220 l / min, power is 370W. Pump body is made of stainless steel to against rust, long service life.

4. Controller

Control system of the experimental apparatus mainly includes CPU1214C, analog expansion module SM1234, RS485 communication module, RS232 communication module, PROFIBUS DP communication module; And the equipped touch screen can fully meet their test requirements, and also support RS485, RS232, PROFIBUS DP Ethernet communications

Note :
Due to keeping innovation,
the specification and
Machine pictures or color
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