

AJ-D Series Batch Controller

AJ-D series Batch Controller is suited to flow applications where precise measurement and control of batch quantities is required.



Overview

AJ-D series Batch Controller has the following main

Features:

- It is suitable for various liquid; it can display instant flow, totalized flow and control purpose.
- Input a variety of flow sensor signals , such as vortex flow meter, turbine flow meter, electromagnetic flow meter, roots flow meter, oval gear flow meter, orifice plate, V-cone flow meter, Annubar, mass flow meter, etc.
- Flow input channel: can receive frequency signal and a variety of analog current signals;
- Temperature input channel: can receive a variety of analog current signal;
- Can provide transmitter with +12V DC or + 24V DC power supply with short circuit protection function, simplify the system;
- Fault-tolerant function: when temperature/density compensation measuring signal is abnormal, carry out compensation operation manually and set the corresponding value;
- Flow re-transmission function, it can output current signal, update cycle is 1 second to realize auto-control function.
- Meter clock and timing automatic meter reading function, print function, provides the convenience for measurement management;
- Rich self-test and self diagnosis function makes it easy maintenance.
- Three password prevents unauthorized personnel changes.
- The instrument without any potentiometer, code switch adjustable device, so as to improve the instrument seismic resistance, stability and reliability;
- Communication function: can carry out data communication through a variety of means of communication with the host computer, RS-485; RS-232;

Main Technical Specification

1. Input signals

Analogue

- Resistance: Standard thermal resistance --Pt100;
- Current: 0~10mA, 4~20mA,input impedance $\leq 250\Omega$)

Pulse

- Wave form: an rectangular shape, sine wave and triangular wave;
- Amplitude: more than 4V;
- Frequency: 0 ~ 10KHz (or according to user requirements).

2. Output signal

Analog output:

- DC 0~10mA(Load resistance $\leq 750\Omega$);

- DC 4~20mA(Load resistance \leq 500 Ω);
3. Switch output
 - Relay output –with hysteresis, AC220V/3A; DC24V/6A(Resistance Load)
 4. Communication
 - Interface mode-RS232C,RS485,Ethernet;
 - Baud rate:600, 1200, 2400, 4800,9600Kbps
 5. Feed output
 - DC24V,load \leq 100mA;
 - DC12V,load \leq 200mA
 6. Characteristics

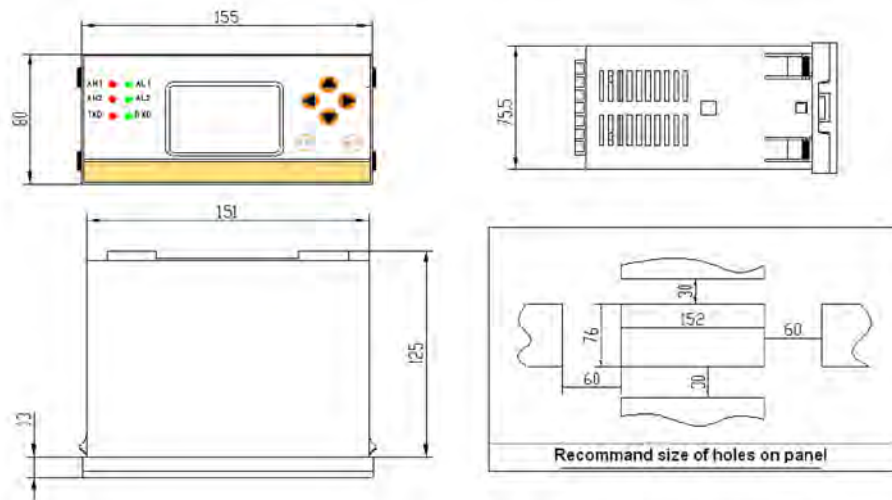
Measuring accuracy: $\pm 0.2\%FS \pm 1$ word or $\pm 0.5\%FS \pm 1$ word
Frequency conversion accuracy: ± 1 pulse (LMS), generally better than 0.2%
Measuring range: -999999 ~ 999999 words (instantaneous, compensation value)
In 0 ~ 99999999.9999 words (Totalized value)
Resolution: ± 1 word
 7. Display mode
 - Historical cumulative flow, instantaneous flow, medium temperature, medium density, flow (differential current, frequency), clock, alarm status;
 8. Control / alarm

Select relay up/lower limit control (or alarm) output
Control (or alarm) is with hysteresis
Alarm: flow rate up and lower limit; temperature up and lower limit;
 9. Protection
 - Power accumulated value time more than 20 years;
 - Automatic reset, power supply under pressure;
 - Abnormal automatic reset (Watch Dog);
 - Resettable fuse, short circuit protection.
 10. Working environment

Environment temperature: -20 $^{\circ}C$ ~60 $^{\circ}C$
Relative humidity: $\leq 85\%RH$, avoid corrosive gas
 11. Power supply

Conventional type: AC 220V % (50Hz \pm 2Hz);
Special type: AC 80~265V switching power supply;
DC 24V \pm 1V switching power supply;
Backup power: +12V, 20AH, can last 72 hours.
 12. Power consumption
 $\leq 10W(AC220V)$

Dimensions



Sample

Vortex flow sensor to measure the quantity of hot water, average flow coefficient is 9.2187 pulses / L. With Pt100 temperature compensation. Each time we need to batch 10 tons of water. Batch without password or IC card to confirm.

Parameter setting:

Meter : veloc./PD Options: 01/04 Signals type: Pulse	Meter : veloc./PD Options: 03/04 Coef. linearize: OFF	Meter : veloc./PD Options: 04/04 Flow coefficient: 00009.2187 1/L
Density (20°C): 0998.0000 kg/m3 V-expansion coe. : 0.000251	Batch1: Enable 010.000 t	T sensor: Pt100 Constant: +080.00
Damping time: 001 S		