【Intelligent flow integrated controller】

> Product outline

Intelligent flow integrated controller adopts advanced microprocessor for smart control, apply to flow detection and integrated control for a variety of liquid, general gas, steam, natural gas and so on.It adopts check table method to carry out density compensate, can automaticaly carry out high-accurate integrated control for superheat steam, saturated steam. Build-in multiple flow-integrated formulas, suit to a variety of flow measurement field.

The product has multi signal input function. It can match meet a variety of pressure/differential pressure and frequency type flow sensor (like orifice plat, vortex street, turbine, and so on), and only need to pass simple selection of instrument's menu then can realize to lightly switching between above-mentioned input signals, and has improved universality and reliability of the instrument. They have many compensation modes (such as temperature compensation, pressure compensation, temperature compensation + pressure compensation and so on) which offer option for user.

Instrument Measurement display scope is wide can show whole five digits instantaneous flow value, temperature compensation value, pressure compensation value, flow, volume (or differential pressure/frequency) value and so on, and the whole thirteen digit of flow accumulated value (0～9,999,999,999,999), high precision, accumulated value can accurate to back three digit of decimal point (0.001), yet can setting by internal parameter to makes the maximum accumulated value reached 99,999,999,999.99×100. Display carry measure state sign, so can carry out conveniently observation of measured object, input/output loop all adopt photoelectric isolation.

> Characteristics

Mathematical model　See instrument's operation manual

Measuring accuracy measurement display accuracy: ±0.5%FS±1

Frequency transform accuracy: ±1 pulse (LMS) general superior to 0.2%

Display mode　high brightness LED digital display

Large screen of all Chinese (with back light) LCD (liguid crystal) display

LED working state display

Current date and time display

Five digit (0～99999) instantaneous flow value display

Eleven digit (0～99,999,999,999) accumulated flow value display

Five digit (0～99999) pressure compensational value display

Five digit (-19999～99999) temperature compensational value display

Five digit (0～99999) flow (or differential pressure / frequency) value display

Control mode　selectable high / lower limit or high-higher / low-lower limit control, with normal open/close output.

Control setting value free set in all range of the control setting value and hysteresis error value

Quantitative control selectable flow fixed quantity to control, LED output indication

select flow quantitative process control, LED output indication

Compensation mode temperature, pressure, temperature + pressure automatic compensation

➢ Outline and open dimension

Outline dimension：160×80×115mm

Open hole dimension：$152^{+0.7}_{-0}$ ×$76^{+0.7}_{-0}$ mm

Outline dimension：80×160×115mm

Open hole dimension：$76^{+0.7}_{-0}$ ×$152^{+0.7}_{-0}$ mm

Outline dimension：96×96×115mm

Open hole dimension：$92^{+0.7}_{-0}$ ×$92^{+0.7}_{-0}$ mm

> Type spectrum table for intelligent flow integrated controller

Model											Explanation
WP-	□□	□	□□	-□	□	-□	-□	□	-□□	-□	
Outline feature	L										LED digital horizontal type display
	LS										LED digital vertical type display
	LC										Large screen LCD liquid crystal horizontal type display
	LCS										Large screen LCD liquid crystal vertical type display
Outline dimension		8									160×80 mm (horizontal), 80×160 mm (vertical)
		9									96×96 mm
Control action			01								No compensation
			02								carry compensation input
			03								Superheat steam carries temperature, pressure compensation
			04								Saturated steam carries temperature, pressure compensation
			05								User specific curve compensation – check table method
Communication mode				0							No communication output
				2							RS-232C communication interface
				8							RS-485 communication interface
Output mode					0						No output
					1						Relay control or alarm output
					2						(4～20) mA output (instantaneous flow after corresponding compensation)
					3						(0～10) mA output (instantaneous flow after corresponding compensation)
					4						(1～5) V output (instantaneous flow after corresponding compensation)
					5						(0～5) V output (instantaneous flow after corresponding compensation)
					6						SCR zero-crossing trigger pulse output
					7						SSR control signal output
					8						Special specification transmit output
Input mode						□					Flow, differential pressure or frequency (see input type)
						□					Pressure compensation input (see input type)
						□					Temperature compensation input (see input type)
First alarm							N				No alarm
							H				First alarm is high limit alarm
							L				First alarm is lower limit alarm
							B				Automatic start for flow fixed quantity to control
							C				automatic start for flow quantitative process control
							D				Automatic clean for flow fixed quantity to control
Second alarm								N			No alarm
								H			Second alarm is high limit alarm
								L			Second alarm is lower limit alarm
								B			Manual start for flow fixed quantitative to control
								C			Manual start for flow quantity process control
Feed output									P		Single loop DC 24 V feed output
									2P		Double loop DC 24 V feed output
Supply mode											AC 220V linear power (can be omitted)
										T	AC (90～265) V switch power supply
										W	DC 24 V supply power

★ Note: 1. Outer connection start,stop,null function see random wiring diagram.

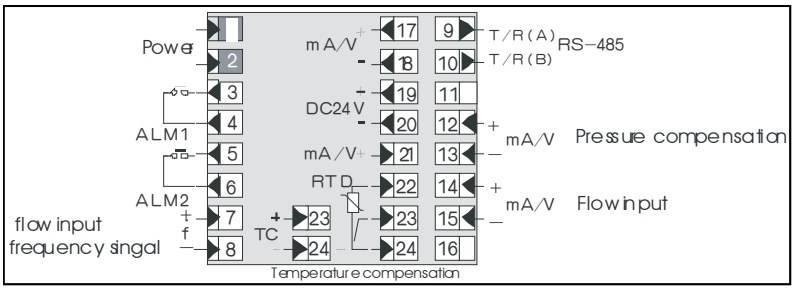
2. L802, L803, L804 series can switch each other by establishes secondary parameter of instrument. It may only free chooses one kind between pressure or temperature compensation while measuring saturated steam.
3. if user chooses specific curve compensation input (checktable method), please when ordering provide relative technical parameter or density form.

Option as an example: WP-L802-02-FAG-HL; WP-LS802-21-AAG-HL
WP-LCS804-01-ANG-HL-P
WP-LC804-01-ANG-HL-P

> Input type

Code	Input type	Measuring scope	Code	Input type	Measuring scope	Remarks
A	(4～20) mA	-1999～9999d	O	Pulse – collector open circuit	0～5 KHz	The table listed data is the maximum range, user can modify secondary parameter to determine measuring range in the measurement scope
B	(0～10) mA	-1999～9999d	E	Thermocouple E type	0～1000℃	
C	(1～5) V	-1999～9999d	K	Thermocouple K type	0～1300℃	
D	(0～5) V	-1999～9999d	R	User given	-19999～99999d	
F	Pulse	0～5 KHz	N	No compensation input		
G	Pt 100	-200～650℃				

>> Wiring diagram for 96×96



>> Wiring diagram for 160×80, 80×160