

digital display controller



- \* Support thermocouple, thermal resistance, voltage, current and two-wire transmitter input; suitable for temperature, Pressure, liquid level, length and other physical measurement and display; can perform various nonlinear signals High-precision linear correction.
- \* Using high-brightness LED digital display, while using high-precision 40-line beam display, clear and intuitive The displayed measurement value.
- \* Support up to four-channel alarm function, including two-channel upper limit and two-channel lower limit alarm, independent alarm
- \* Adopting advanced technology without jumper wire, the index number can be changed freely.
- \* With multiple standard serial two-way communication functions (RS232C, RS485, RS422, etc.).
- \* With intelligent data collector and configuration software based on Windows XP platform, Bit machine networking

## Model definition

ZYS - C803 - 21 - 08 - HL - P - T

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## Model meaning:

1. Indicate the basic functions of the instrument  
digital display controller, with thermocouple, thermal resistance, mV, mA and other linear voltage/current input, and the measurement accuracy is 0.5.
2. Indicates the size of the instrument panel (width \* height)  
Panel 160\*80mm, opening 152\*76mm, horizontal type.  
Panel 80\*160mm, opening 76\*152mm, vertical type.  
Panel 96\*48mm, opening 92\*45mm, horizontal type.  
Panel 48\*96mm, opening 45\*92mm, vertical type.  
Panel 96\*96mm, opening 92\*92mm, square.  
The panel is 72\*72mm, with an opening of 68\*68mm, square.  
The panel is 48\*48mm, and the opening is 44\*44mm, square.
3. Indicates the communication mode and output mode of the instrument:  
RS485 and other communication and relay, 4-20mA and other output can be selected
4. Indicates the input type of the instrument: you can refer to the code and freely change the index number
5. Indicates the alarm function of the instrument: the alarm mode of the first, second, third and fourth channels can be switched freely
6. Indicates the additional function of the instrument: optional 24V feed (can be omitted if not required)
7. Indicates the power supply of the instrument: DC24V, AC220V can be selected.

## Technical specifications

### \* Input specifications

Thermocouple: B, S, K, E, J, T, WRe, etc.

Thermal resistance: Pt 100, Cu 50 and other remote pressure resistance

Linear voltage: 0-5V, 1-5V, 0-10V, 1-10V, etc. (input impedance  $\geq 250\Omega$ )

Linear current: 4-20 mA, 0-10 mA, etc. (input impedance  $\leq 250\Omega$ )

Linear resistance: 0 ~ 400 $\Omega$  (can be used to measure remote resistance pressure gauge)

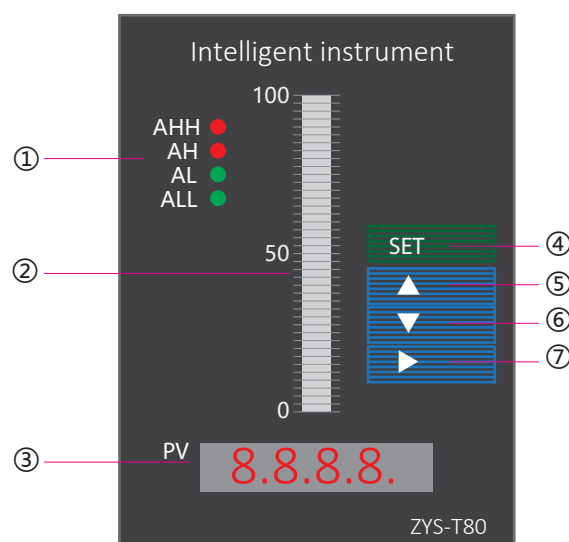
### \* Measuring range: -1999 ~ 1999 words



- \* Measurement accuracy: 0.5% FS±1 word
- \* Transmission output: analog output: DC4~20mA (load capacity ≤500Ω)
- Switch output: relay control output (ON/OFF with hysteresis), contact capacity: AC 220V / 3A; DC 24V / 6A (resistive load)
- \* Use environment: ambient temperature 0~50 C , relative humidity ≤ 85 RH, avoid strong corrosive gas.
- \* Power supply voltage: AC220V ± 10% / 50Hz.
- \* Power consumption: ≤5W

## Panel description

1. Indicator light: AHH--upper limit alarm  
AH--upper limit alarm  
AL--lower limit alarm  
ALL--lower limit alarm
2. 40-segment light beam: visually display the ratio of PV value
3. PV window: display the measured value,  
in the parameter setting state, display the parameter symbol or set value
4. Setting key: used to enter parameter setting state, confirm parameter modification, etc.
5. Data increase key
6. Data reduction key
7. Data shift key



## Setting parameters

In the basic display state, press the SET key and hold for 3 seconds to enter the field parameter table. Use the arrow keys to modify the parameter value, long press the SET key to exit the setting parameters Number status. Set PASS=555 to enter the system parameter setting state.

## Field parameter table

Parameter code	Parameter meaning	Description	Setting range	Factory default
AH	Upper limit alarm value	When the measured value PV>AH value, an upper limit alarm will be generated, and the measured value When PV<(AH-dH) value, release the upper limit alarm	-1999~9999	300.0
dH	Upper limit alarm return difference	Also known as dead zone, stagnation. The hysteresis is used to avoid the fluctuation of the measurement input value. Position adjustment output produces frequent malfunctions	0~9999	0.0
AL	Lower limit alarm value	The lower limit alarm will be generated when the measured value PV<AL value, When the measured value PV>(AL+dL) value, the lower limit alarm is released	-1999~9999	200.0
dL	Lower limit alarm return difference	Same (dH)	0~9999	0.0
AHH	Upper limit alarm value	When the measured value PV>AHH value, an upper limit alarm will be generated. When the measured value PV<(AHH-dHH) value, the upper limit alarm is released	-1999~9999	400.0
DHH	Upper limit alarm return difference	Same (dH)	0~9999	0.0
ALL	Lower lower limit alarm value	The lower limit alarm will be generated when the measured value PV<ALL value, When the measured value PV>(ALL+dLL) value, the lower lower limit alarm is released	-1999~9999	100.0
dLL	Lower and lower limit alarm hysteresis	Same (dH)	0~9999	0.0
PASS	Password parameter item	PASS=555	0~9999	0.

## System parameter table

		Sn	Input specifications	Sn	Input specifications	Factory parameters
Sn	Input specifications	00	S	12	0~10V	15
		01	R	13	0~10mA	
		02	B	14	0~20mA	
		03	K	15	4~20mA	
		04	N	16	mV signal	
		05	E	17	Resistance R non-standard signal	
		06	J	18	Frequency f non-standard signal	
		07	T	19	0~5V prescribing	
		08	Pt100	20	1~5V prescribing	
		09	Cu50	21	0~10mA prescribing	
		10	0~5V	22	4~20mA prescribing	
		11	1~5V	23	Full switch input	
dot	Decimal point	dot=0			No decimal point	1
		dot=1			Ten	
		dot=2			hundreds	
		dot=3			Thousands	
PUL	PV range lower limit	Set the lower measurement range of the input signal		-999~9900	0.0	
PUH	PV range upper limit	Set the upper measurement range of the input signal		-900~9999	500.0	
Pb1A	Zero shift	Set the shift amount of the input zero point		Full scale	0.0	
F1Lt	Filter coefficient	Set no more than 0.900, otherwise the instrument will make an error		0.100~0.900	0.100	
K1	Input range ratio	Set display input range magnification ratio		1~1.999 times	1.000	
OU-A	First transmission output	Corresponding to the measured value for linear output		OU-A=1(0~10mA)	1	
				OU-A=2(4~20mA)		
PH	Upper limit alarm type	Switching relay normally open/normally closed contact		0001: High alarm	0001	
				0002: Low alarm		
PL	Lower limit alarm type	The definition is the same as the PH item		Same as PH	0002	
PHH	Upper limit alarm type	The definition is the same as the PH item		Same as PH	0000	
PLL	Lower limit alarm type	The definition is the same as the PH item		Same as PH	0000	
1nPH	Non-standard signal input maximum	10~100mV; 10~400Ω; 2~300Hz			100	
1nPL	Non-standard signal input minimum	0~90mV; 0~390Ω; 0~2998Hz			0	
bAUd	Communication baud rate	Communication rate		0=1200bps	3	
				1=2400bps		
				2=4800bps		
				3=9600bps		
1d	mailing address	Set up mailing address		0~31	1	

for example

Example 1: Liquid level transmitter 0~5 meters (on the label), 4~20mA output, alarm when the water level is greater than 4 meters, and alarm when the water level is below 1 meter (in mm)

parameter	name	Set value
Sn	Signal input type	15
dot	Signal input decimal point	1
PUL	Lower limit of range	0.0
PUH	Upper range limit	500.0
AL	Lower limit alarm	100
AH	Upper limit alarm	400

The parameter modification process is as follows:

