

XMT*-308 Series intelligence digital temperature control instrument

Insruction Manual

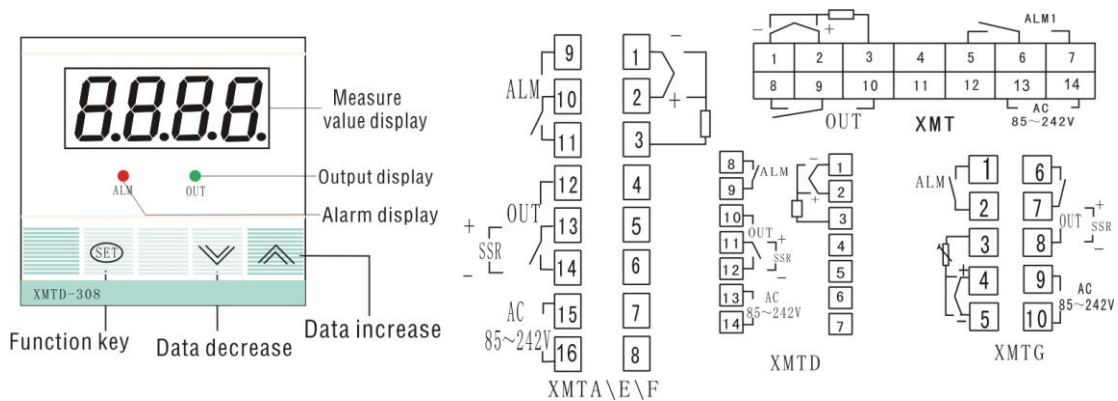
I、Summarize

XMT*-308 series intelligent temperature controller, is single row 4-LED display. The controller can input kinds of signals which are used interchangeably, three-button operation, adopts ON/OFF control and PID control. It can select Fahrenheit and degree centigrade temperature display. It allows an easy parameter setting and convenient inputting, is used widely temperature automatic control systems of machinery、chemical、ceramics、light industrial、metallurgy、petrification and heat treatment and so on.

II、Main Technical Indexs

- 1、Measurement deviation: $\pm 0.5\%F \cdot S \pm 1B$, Cold end compensating deviation $\leq \pm 2^{\circ}C$
- 2、Input(can be selected): CU50、PT100、K、E、J、T、S
- 3、Relay output contact capacity: AC220V 5A(resistance load)
period 2~120s can be adjusted.
- 4、Driving solid relay signal output: driving electric current $> 15m A$ voltage $> 9V$,
period is 2S
- 5、Power: AC85V~242V, 50~60HZ
- 6、Work environment: temperature $0 \sim 50.0^{\circ}C$, relative humidity $\leq 85\%RH$, without corrode and strong electric radiation.

III、Instrument panel and connection scheme (consult)

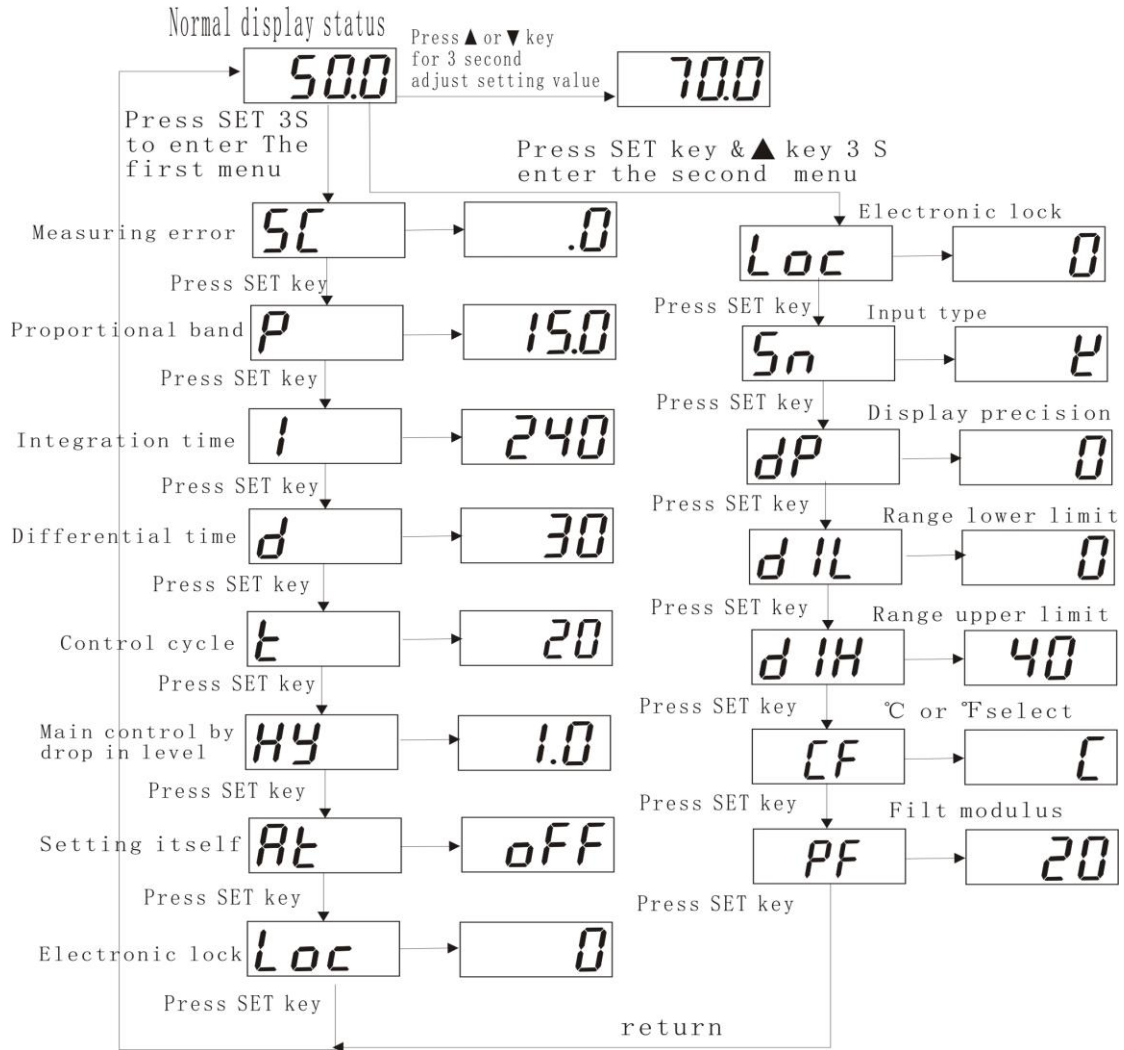


IV、Technical Indexes

Series	Attention	Name	Setting range	Remark	Ex-Factory	
	0	—	Appointed data	Determined by $d 1L$ and $d 1H$	Press ▲ or ▼ for 3 second and set the temperature setting value you need	—
First	1	AL	High-limit alarm	Determined by $d 1L$ and $d 1H$	—	Random
	2	SC	Measurement deviation	-20.0~20.0	Measuring value can be modified through increasing or decreasing this data.	0

Menu	3	<i>P</i>	Proportion time	0~99.9~200	When the P↑,the proportion and differential function↑;If the P↓,the proportion and differential function↓ When P=0,the meter is ON/OFF control.	15.0
	4	<i>I</i>	Calculus time	0~3000	It's used to adjust static difference. To increse it ,the static difference will bereduced,but when it is too high,the static difference will drift instability.	240
	5	<i>d</i>	Differential time	0~200	It's used to adjust the overshoot in the First time,to increase it can reduce the overshoot.	30
	6	<i>t</i>	Control period	2~ 120S	Control output period	20
	7	<i>HY</i>	Main control by drop in level	0.1~50.0	It only controls at ON/OFF	1.0
	8	<i>At</i>	Parameter setting itself	<i>on/off</i>	<i>off</i> —shut itself function; <i>on</i> —open itself function Select ' <i>on</i> 'only can adjust for one time, and then turn back to ' <i>off</i> '	<i>off</i>
	9	<i>Loc</i>	Electronics lock	0~50	<i>Loc</i> =0 all the parameter can be revised <i>Loc</i> =1 only the appointed data can be revised	0
Second Menu	9	<i>Loc</i>	Electronics lock	0~50	idem	0
	10	<i>Sn</i>	Input specification	—	Input type Max. temperature range CU50 -50~150℃/—90~270℉、 PT100 -199~600℃/—199~1080℉、 K -30~1300℃/—54~2340℉、 E -30~700℃/—54~1260℉、 J -30~900℃/—54~1620℉、 T -199~400℃/—199~720℉、 S -30~1600℃/—54~2880℉	K
	11	<i>dp</i>	point	0~1	<i>dp</i> =0 display no point, <i>dp</i> =1 display point	0
	12	<i>dIL</i>	Set lower limit	<i>dIL</i> ≤ <i>dIH</i>	Temperature range refer to <i>Sn</i>	0
	13	<i>dIH</i>	Set upper limit			400
	14	<i>CF</i>	℃ or ℉ select	—	<i>C</i> : ℃ <i>F</i> : ℉	<i>C</i>
	15	<i>PF</i>	Filt modulus	0~50	It is the software filter constant of measurement sampling.The constant ↑,the measurement antijamming capability↑,but the measurement speed and system response time ↓	20

V、Flow chart



VI、Operation

1、 Electrify after take into the power,sensor and control circuit according to the connection scheme,and then the instrument start testing itself for 1 second.

2、 Set the setting value

Press ▲ or ▼ key 3 second enter to the setting value states. press ▲ or ▼ key to modify, for long time to press the key can accelerate.After modification,press SET to save and exit.if you don't do this operation,it can be done itself.

3、 Interior Technical parameter setting (Technical parameter refer to the sheet)

(1) The first menu

Press SET key 3 second enter into the first menu,the window display parameter code then display parameter value.Press ▲ or ▼ key to modify, for long time to press the key can accelerate. After modification,press SET key to save and enter into next Indexs setting. if you don't do this operation,it can be done itself.

(2)The second menu

Press SET & ▲ key to enter into the second menu,and the setting method is the same as the first menu.

4. Set by itself

First ,set the setting value,and enter the menu,set AT to ON, and the AT light turn on, the

meter enter the condition setting itself, this time the meter adopt on/off control mode,after three times surge(first time,measure value and $HL0$ display by turns;second time, measure value and $HL1$ display by turns; second time , measure value and $HL2$ display by turns),the meter confirm new P 、 I 、 d and save it,the meter reset and(display 8888 、 $[\]$ by turns) enter control condition.

VII、 Model Sense

XMT□— 3 □ 8 □
1 2 3 4 5

1:External size and Installation hole(mm)

Empty: 160×80×90	152×76	A: 96×96×90	92×92
D: 72×72×90	68×68	E: 48×96×90	44×92
F: 96×48×90	92×44	G: 48×48×100	44×44
S: 80×160×90	76×152	B: 60×120×90	56×116
C: 80×120×35	wall set installation	FC: 77×35×76	71×29

2.Operation display method: ‘3’ 3-key soft push-switch setting, single row digital display, have PID adjustment or ON/OFF control

3: An additional alarm: ‘0’ indicates no alarm; ‘1’ upper limit touch alarm;
‘2’ lower limit touch alarm

4: Input signal classification: ‘8’ input signal can interchange free

5:Suffix: empty: relay output G: solid state relay output

A: mono-phase over zero trigger output

VIII、 Fault Analysis and Clearance

XMT*-308 adopts advanced production process, and has the strict test before leaving factory, it improve the reliability of the meter .The usual fault is caused by the wrong operation or parameter setting .If you find the fault couldn’t be cope with, please record it,and contact with the agent or us. Sheet 8-1 is the usual fault of XMT*-308 in the daily application:

Sheet 8-1 Common fault handling

fault symptom	Analysis of causes	Disposal measurement
Abnormal power	1、 poor contact of power cord 2、 power switch without lose	Check the power
Signal display do not correlate with the facts. (display ‘HH’ or ‘LL’)	1、 Sensor model mismatch 2、 wrong signal connection	1、check sensor model and meter interior input parameter 2、 check signal wire
Abnormal output control	1、 wrong connecting output wire	1、 check output connection

Attached 1: Statement of meter’s parameter attention letter and English letter

A	B	C	D	E	F	G	H	I	J	K	L	M
\bar{A}	\bar{b}	\bar{c}	\bar{d}	\bar{E}	\bar{F}	\bar{G}	\bar{H}	\bar{i}	\bar{J}	\bar{k}	\bar{L}	\bar{m}
N	O	P	Q	R	S	T	U	Y				
\bar{n}	\bar{o}	\bar{P}	\bar{q}	\bar{r}	\bar{S}	\bar{t}	\bar{u}	\bar{y}				

★Note: Our company will continue to improve product technology, design specification. If change, please subject to the material object, without notice.