

# MORING GROUP XMT7100 Series Intelligent PID Temperature Controller

- Input type can be RTD input (Pt100, Cu50) or Thermocouple input (T, R, J, B, S, K, E, WRe3-WRe25)
- The instrument has automatic function to self adapt to different systems
- Instrument can be degrees Celsius, degrees Fahrenheit temperature
- Five control optional:

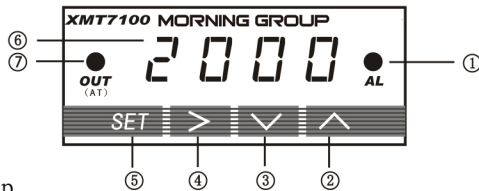


- 0, One alarm relay
- 1, Relay contact PID output
- 2, One alarm relay output; SSR all the way non-contact level PID output
- 3, One alarm relay output; SSR-level all the way back to poor control output
- 4, Backlash relay control output

## I. Specifications

- ◆ Power supply: AC/DC 85~265V (50Hz/60Hz)
- ◆ Contact capacity: AC 250V/3A
- ◆ Contact life:  $1 \times 10^5$
- ◆ SSR-level: 8V (Open-circuit voltage); 30mA (short-circuit current)
- ◆ Temperature precision: 0.2% FS
- ◆ Environment: 0~+50°C; ≤85% RH
- ◆ Outline Dimension: 48×24×75
- ◆ Panel Cutout Dimension: 45×22

## II. Panel description



- ① Indication Lamp  
AL-Relay output lamp: Lights when output is turned on
- ② Up key: Used for selecting next parameter or increase numerals
- ③ Down key: Used for selecting previous parameter and used to increase numerals
- ④ Shift key: Used to shift the digital when the setting is changed and used to perform autotuning function
- ⑤ Set key: Used for parameter registration/calling up
- ⑥ Measured value (PV) display unit
- ⑦ Out-Contr ol output indicator  
AT-Autotuning lamp: Flashes during autotuning execution

## III. Parameter setting guide

( ) Initiation function parameter (Log in by inputting password 0089 after pressing set key)

### 1. Details of parameters

Symbol	Description	Range	Factory value
inty	inty Input type	Table 1	P10.0
outy	outy Control output type	0, 1, 2, 3, 4	2
Hy	Hy Autotuning pV bias	0~9999	0.3
Psb	Psb pV bias	-1000~1000	0.0
rd	rd Control action type	0:heat; 1:cool	0
CorF	CorF Engineering unit selection	0: °C; 1: F	0
End	End End		

## 2. Parameters of the initial functional description

### 1) inty: Temperature sensor type list

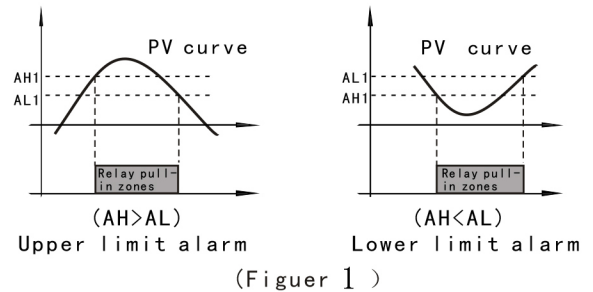
Table 1

Symbol	Name	Sensor type	Temperature range °C	Mark
t	T	TTC	-200~400	Internal resistance 100KΩ
r	R	RTC	-50~1600	
J	J	JTC	-200~1200	
WRE	WRE	WRETC	0~2300	
b	B	BTC	350~1800	
S	S	STC	-50~1600	
K	K	KTC	-200~1300	Constant current output 0.2mA
E	E	ETC	-200~900	
P10.0	P10.0	Pt100 RTD	-199.9~600.0	
P100	P100	Pt100 RTD	-199~600	
Cu50	Cu50	Cu50 RTD	-50.0~150.0	

### 2) outy: Control output type

0: Relay alarm output (see Figure 1);

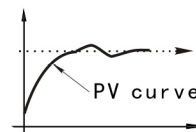
SSR output is invalid, SV value is not valid



1: PID relay contact output all the way (see Figure 2); SSR output is invalid, used for Constant temperature control, the target value for the SV

2: One relay alarm output; One SSR all the way non-contact level PID output (see Figure 2),

Used for temperature control, the target for the SV

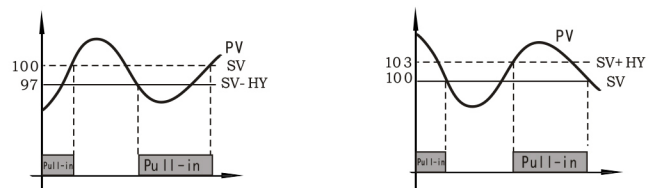


(Figure 2)

In this way, mainly for the constant temperature; Control mode, SV for the temperature settings

3: One relay alarm output; SSR-level all the way back to poor control output (Figure 3), SV is control value

4: All the way back to poor control of relay output (Figure 3), SV is control value



(Figure 3)

