

# AX series

Digital Temperature Controller

Economical  
price

Convenient  
functions

High speed  
sampling

High accuracy  
temperature controlling



AX2 · AX3 · AX4 · AX7 · AX9



→ Actualized the highly accurate temperature controlling

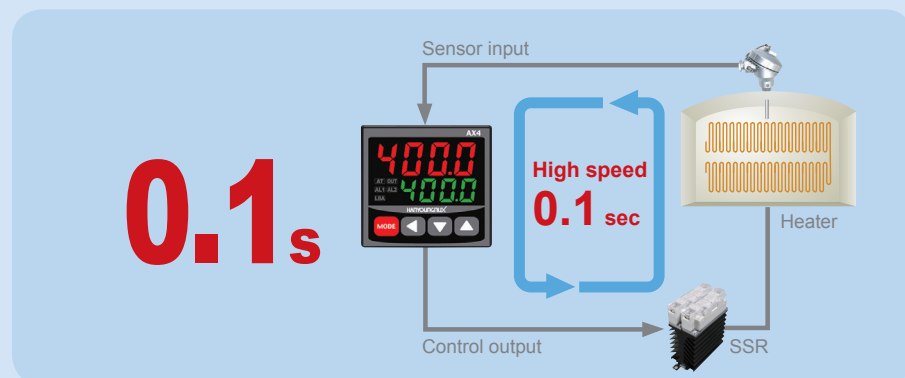
## High display accuracy

Upgraded the display accuracy to the  $\pm 0.3\%$  of F.S (Full Scale)

**$\pm 0.3$  % of F.S**

## High speed sampling cycle

Performs more precise temperature controlling by the high speed sampling cycle (0.1 s)



**0.1s**

## 0.1°C / 0.1°F decimal point display

Able to select either celsius (°C) or Fahrenheit (°F) for temperature display by the internal parameter selection

**0.1 °C / 0.1 °F**

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Digital temperature controller

## Digital temperature controller

- ▶ Multi-input ( K, J, R, T and Pt100 Ω )
- ▶ Multi-output ( Relay and SSR )
- ▶ High speed sampling cycle ( 0.1 sec )
- ▶ Installation depth : 63 mm
- ▶ Control loop break alarm ( LBA )

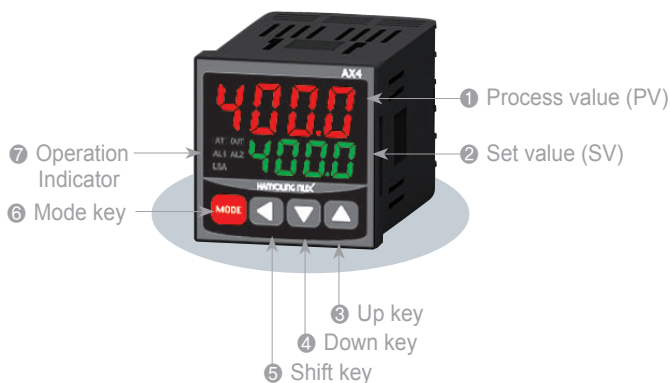
## » Suffix code

Model	Code	Description
AX	□ - □ □	Digital temperature controller (Multi input : K, J, R, T, Pt 100 Ω)
Dimension	2	48(W) X 96(H) mm
	3	96(W) X 48(H) mm
	4	48(W) X 48(H) mm
	7	72(W) X 72(H) mm
	9	96(W) X 96(H) mm
Output selection	1	SSR + Relay1 + Relay2
	2	SSR + Relay1 + Relay2 + Relay3
	3	4 - 20 mA + Relay2
	4	4 - 20 mA + Relay2 + Relay3
Power supply voltage	A	100 - 240 V a.c 50 / 60 Hz

※ Relay output operates as control output, alarm output and LBA output depending on the internal parameter setting.

## » Part name and function

NO	Name	Information
①	Process value (PV)	Display the current temperature in the operation screen
②	Set value (SV)	Display the set temperature in the operation screen
③	Up key	Change the operation screen, increase the set value, move to the parameter setting mode
④	Down key	Decrease the set value, move to the parameter setting mode
⑤	Shift key	Shift to the set value digits Move from operation screen - users Move from operator - setting mode
⑥	Mode key	Move from operation screen - users Move from operator - setting mode
⑦	AT	Light ON with the PID auto tuning
	OUT	Light ON with the control output operation
	AL1	Light ON with the Alarm1 operation
	AL2	Light ON with the Alarm2 operation
	LBA	Light ON with the Loop break alarm operation








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Digital temperature controller

## Economical • Convenient • Fast Sampling Cycle High Accuracy Temperature Control

It maintains the ease of use with its essential functionality for engineers and job-site operators and high accuracy temperature control is achieved with fast sampling cycle

### → Simple selection



The image shows a square digital temperature controller unit with a black face and a red LED display. The display shows '40.00' in red and '40.00' in green. Below the display are three buttons: a red 'MODE' button, a white left arrow, and a white right arrow. The unit is labeled 'AX4' in the top right corner and 'HANYOUNG NIDEX' at the bottom.

**Multi input (sensor)**

- Thermocouple  
**K, J, R, T**
- RTD  
**Pt100 Ω**

**Display accuracy**  
± **0.3** % of F.S

**Sampling cycle**  
**0.1** 초

**Control output type**

- Relay output 3 contacts (selectable among the control output/alarm1/alarm2/LBA)
- SSR output 1 contact (Built in as standard)  
※ Relay output can have maximum 3 contacts which can be selected as control output, alarm1 output, alarm2 output and LBA output.

**Control method**  
PID control by auto-tuning or on-off control.

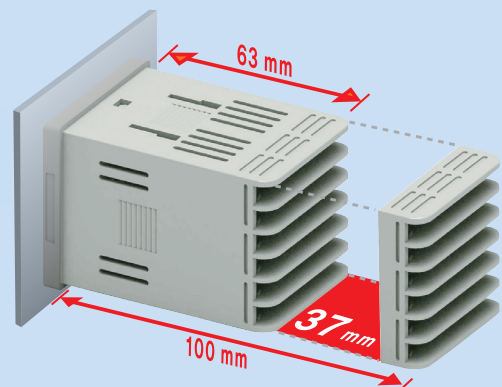
**Control output operation**  
Reverse operation (heating control)/direct operation (cooling control) selectable by the internal parameter.

**Display function**

- Display the process value (PV) and set value (SV) together at the same time (4 digits)
- Display temperature in Celsius (°C) / Fahrenheit (°F)
- Display the position of decimal point (0.1/1 selectable)

## Installation Depth 63 mm

**AX series** With the design of reducing the installation depth it provides more space for installation and the control panel and control box can be miniaturized



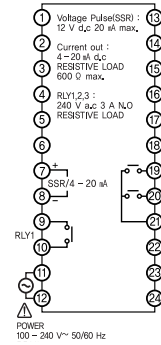
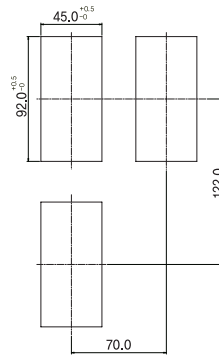
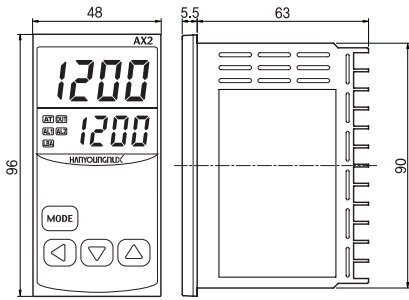
# Dimension and panel cutout / connection diagram

(Unit : mm)

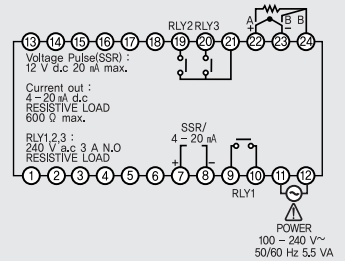
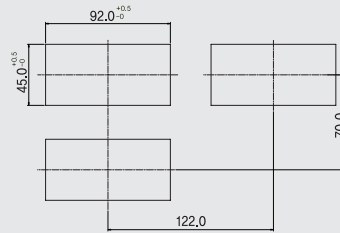
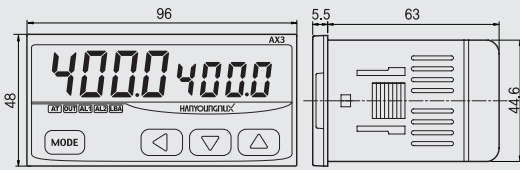
Dimension

Panel cutout

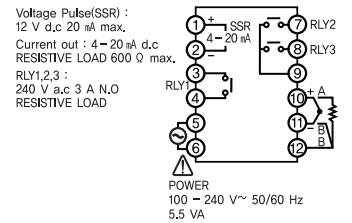
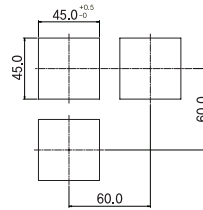
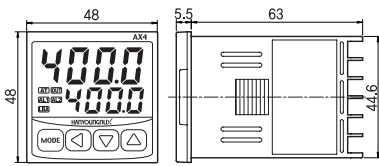
Connection diagram



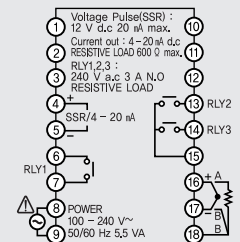
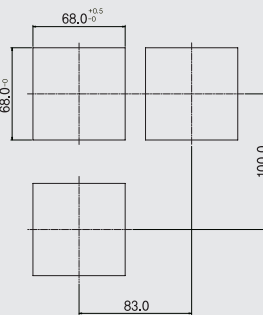
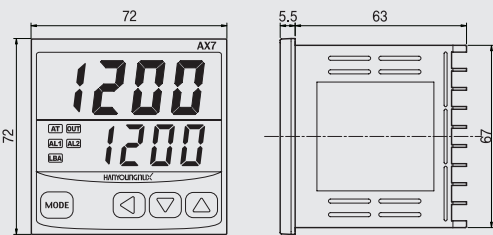
AX2



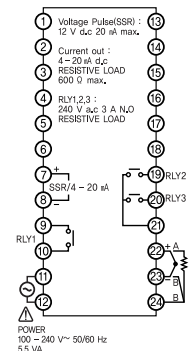
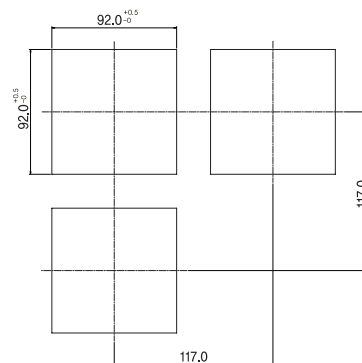
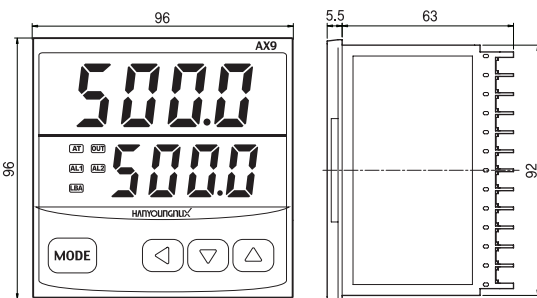
AX3



AX4



AX7



AX9