Digital Temperature Indicating Controller Model : **ACN-200**

■ Model

Model	ACN-2		□	□ - □ / □	□
Control Action (*1)	ON/OFF control	1			
	PD control	2			
Alarm Function (*2)	No alarm action		0		
	High limit alarm		1		
	High limit alarm with standby		1		H
	Low limit alarm		2		
	Low limit alarm with standby		2		H
	High/Low limits alarm		4		
	High/Low limits alarm with standby		4		H
	High/Low limit range alarm		6		
	Process high alarm		8		
	Process low alarm		9		
Output	Relay contact			R	
	Non-contact voltage			S	
Input (*3)	Thermocouple (K, J)				E
	RTD (Pt100)				R

(*1) Control actions are selectable with the DIP switch.

(*2) When ordering, please specify an alarm type (except no alarm action). The alarm type can be changed with the DIP switch. If no alarm action is specified, the alarm function will not be equipped when shipped.

(*3) Customer specified

■ Input Specifications

Rated scale:

Thermocouple

Input type	Input range	Resolution
K	0 to 400℃ [5℃]	1℃
J	0 to 400℃ [5℃]	1℃

[ ]: One division of the setting scale

RTD

Input type	Input range	Resolution
Pt100	0 to 100℃ [1℃]	1℃

[ ]: One division of the setting scale

Input (Customer specified):
  Thermocouple: K, J
          External resistance: 100Ω or less
  RTD: Pt100 3-wire type,
      Allowable input lead wire resistance: 10Ω or less
                                      per wire

Supply voltage: 100 to 240V AC 50/60Hz
      Allowable voltage fluctuation range: 85 to 264V AC

■ General Structure

Dimensions : 96×96×120mm (W×H×D)
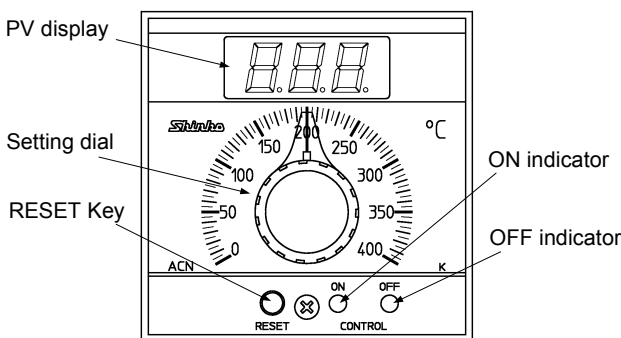Weight   : Approx. 370g
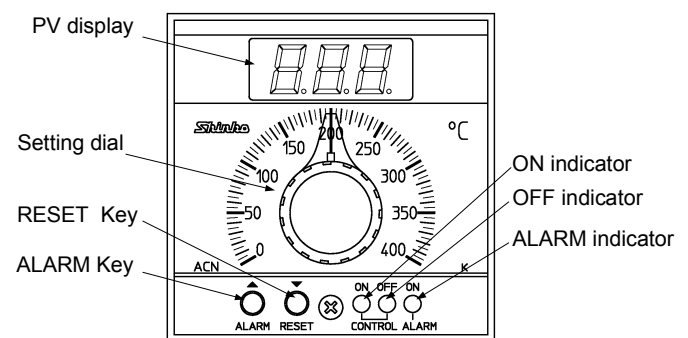Mounting   : Flush
Case   : Polycarbonate resin
             Color: Dark gray
Panel   :

Alarm function not added

Alarm function added

■ Indication Performance

Indication accuracy : Within 0.5% of each input span ±1digit
Input sampling period: 250ms

■ Control Performance

Setting accuracy: Within 1.0% of each input span
Control action: PD control (with Auto-reset function) (DIP switch No.1: OFF)
            Proportional band (P): 2.5% of each input span
            Derivative time (D): 50 sec
            Proportional cycle: 3 sec (ACN-2□0-S/□),
                             30 sec (ACN-2□0-R/□)
         ON/OFF control (DIP switch No.1: ON)
          ON/OFF hysteresis: 0.6% of each input span
Control output: Relay contact: 1c (ACN-2□0-R/□)
            Control capacity: 5A 250V AC (Resistive load)
                           2A 250V AC (Inductive load $\cos\phi$=0.4)
            Electrical life: 100,000 cycles
            Non-contact voltage (for SSR drive)
               : 12V DC±15% (ACN-2□0-S/□)
                Max. 40mA DC (Short circuit protected)


Proportional band

Hysteresis
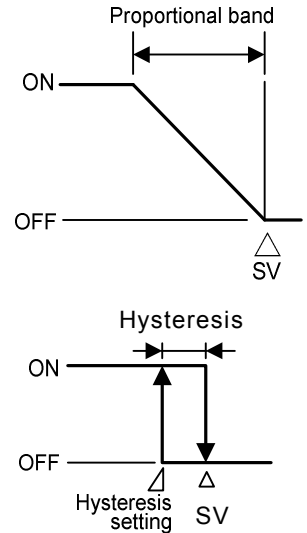
■ Alarm Function

Alarm output: Setting by the ±deviation from the SV (except process alarm). If the input goes outside the range, the output turns ON or OFF (in the case of High/Low limit range alarm).
Alarm type: If any alarm type (except no alarm action) is specified, the alarm type can be changed with the DIP switch. (Default: Customer specified alarm type)

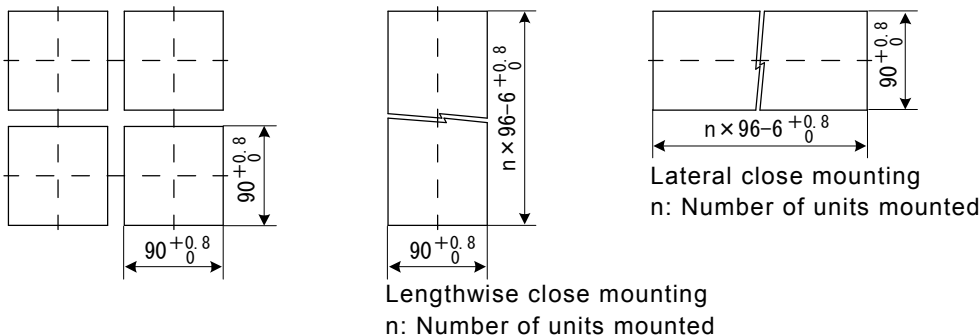| Alarm type	Setting range	SW2	SW3	SW4	SW5
No alarm action	—	OFF	OFF	OFF	OFF
High limit alarm	-199 to input span	ON	OFF	OFF	OFF
High limit alarm with standby		ON	OFF	OFF	ON
Low limit alarm		OFF	ON	OFF	OFF
Low limit alarm with standby		OFF	ON	OFF	ON
High/Low limits alarm	0 to input span	ON	ON	OFF	OFF
High/Low limits with standby		ON	ON	OFF	ON
High/Low limit range alarm		OFF	OFF	ON	OFF
Process high alarm		ON	OFF	ON	OFF
Process low alarm		OFF	ON	ON	OFF

Setting accuracy: The same as control setting accuracy
Action : ON/OFF action
        Alarm hysteresis 1℃
Output : Relay contact, 1c
Control capacity:
   3A 250V AC (Resistive load)
   1A 250V AC (Inductive load $\cos\phi$=0.4)
Electrical life: 100,000 cycles

■ Terminal Arrangement
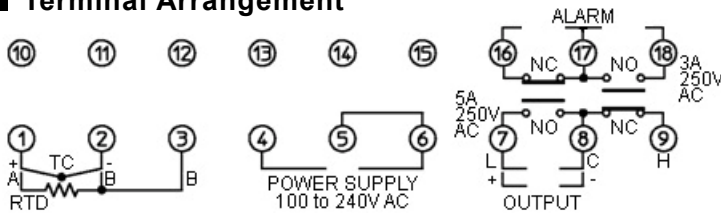
POWER SUPPLY : 100 to 240V AC
ALARM : Alarm output
OUTPUT : Control output
TC : Thermocouple input
RTD : Resistance temperature detector input

■ Panel Cutout (Scale: mm)

Lateral close mounting
n: Number of units mounted

Lengthwise close mounting
n: Number of units mounted

■ Other

Power consumption: Approx. 5VA,   Ambient temperature: 0 to 50℃
Ambient humidity: 35 to 85%RH (non-condensing)