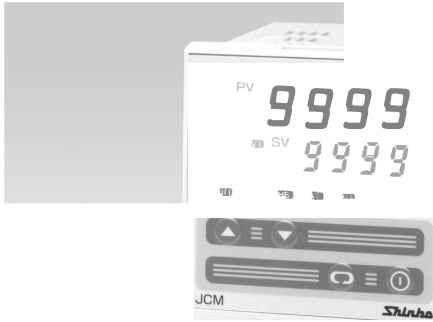


# Digital indicating controllers

## JCM-33A



<b>Model name</b> JCM-33A - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> [JCM-330(W72X H72XD 100mm)]	
Alarm1 (A1)	A <input type="checkbox"/> Applied (Selectable by key operation)
Control output (OUT1)	R <input type="checkbox"/> Relay contact S <input type="checkbox"/> Non-contact voltage (for SSR drive) A <input type="checkbox"/> DC current
Input	M <input type="checkbox"/> Multi-range input
Supply voltage	1 <input type="checkbox"/> 24V AC/DC Alarm 2 Loop break alarm
Option	A2 W(5A) Rated current: 5A
	W(10A) Rated current: 10A
	W(20A) Heater burnout alarm
	W(50A) Rated current: 50A
<input type="checkbox"/>	Control output (OUT2) (Heating/Cooling control output) DR: Relay contact DS: Non-contact voltage DA: DC current
<input type="checkbox"/>	P24 Isolated power output
<input type="checkbox"/>	C5 Serial communication (RS-485)
<input type="checkbox"/>	BK Color Black
<input type="checkbox"/>	TC Terminal cover
<input type="checkbox"/>	IP Dust-proof/Drip-proof (IP54)

Please designate the specification from the     columns.  
 When adding an option, enter it punctuated by comma.  
 · For DC current output type, option W cannot be added.  
 · If option C5 is added, SV1/SV2 external selection is not available.  
 · 100 to 240V AC is standard supply voltage. However when ordering 24V AC/DC, enter "1" after the input code.

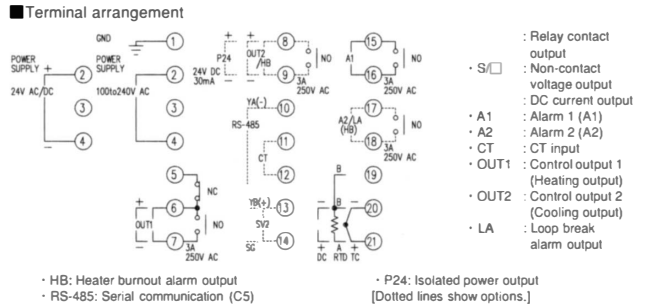
Option combination	A 2	L A	W	D <input type="checkbox"/>	P 24	C 5	B K	T C	I P
Combination 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combination 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combination 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combination 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combination 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combination 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combination 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combination 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Rated scale	Input type	Scale	
	Thermocouple	K	-200 to 1370 °C
J		-199.9 to 400.0 °C	-199.9 to 750.0 °F
R		-200 to 1000 °C	-320 to 1800 °F
S		0 to 1760 °C	0 to 3200 °F
B		0 to 1760 °C	0 to 3200 °F
E		0 to 1820 °C	0 to 3300 °F
T		-200 to 800 °C	-320 to 1500 °F
N		-199.9 to 400.0 °C	-199.9 to 750.0 °F
PL- II		-200 to 1300 °C	-320 to 2300 °F
C (W/Re5-26)		0 to 1390 °C	0 to 2500 °F
RTD	Pt100	0 to 2315 °C	0 to 4200 °F
		-200 to 850 °C	-300 to 1500 °F
	JPt100	-199.9 to 850.0 °C	-199.9 to 999.9 °F
		-200 to 500 °C	-300 to 900 °F
DC current	4 to 20mA DC	-199.9 to 500.0 °C	-199.9 to 900.0 °F
	0 to 20mA DC		
DC voltage	0 to 1V DC		
	0 to 10V DC	-1999 to 9999, -199.9 to 999.9	
	1 to 5V DC		
	0 to 5V DC		

· For DC inputs, scaling and decimal point place change are possible.  
 · For DC current input, 50 Ω shunt resistor (sold separately) has to be externally installed.

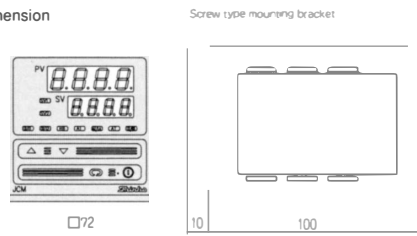
<b>Input</b> For the input type, refer to the "Rated scale". Thermocouple: External resistance, 100 Ω or less (However, for B input, external resistance, 40 Ω or less)	
RTD	: 3-wire system (Resistance per wire: 10 Ω or less)
DC current	: Input impedance, 50 Ω (Connect 50 Ω shunt resistor between input terminals) Allowable input current, 50mA or less (when using 50 Ω shunt resistor)
DC voltage	: Input impedance, 1M Ω or greater (for input 0 to 1V DC) Input impedance, 100k Ω or greater (for inputs 0 to 10V DC, 1 to 5V DC, 0 to 5V DC)

- Accuracy (Setting, Indication)**  
 Thermocouple: Within  $\pm 0.2\%$  of each input span  $\pm 1$ digit, or within  $\pm 2^\circ\text{C}$  (4°F), whichever is greater  
 However, R, S inputs, 0 to 200°C (400°F): Within  $\pm 6^\circ\text{C}$  (12°F)  
 B input, 0 to 300°C (600°F): Accuracy is not guaranteed.  
 K, J, E, T, N inputs, less than 0°C (32°F): Within 0.4% of each input span  $\pm 1$ digit  
 RTD : Within  $\pm 0.1\%$  of each input span  $\pm 1$ digit, or within  $\pm 1^\circ\text{C}$  (2°F), whichever is greater  
 DC current, DC voltage: Within  $\pm 0.2\%$  of each input span  $\pm 1$ digit
- Input sampling period** 0.25 seconds
- Control output** Relay contact: 1a1b 3A 250V AC (resistive load),  
 1A 250V AC (inductive load  $\cos \phi = 0.4$ )  
 Electric life: 100,000 times  
 Non-contact voltage: 12V DC Max. 40mA (short-circuit protected)  
 DC current: 4 to 20mA DC Load resistance: Max. 550 Ω  
 PID, PI, PD, P, ON/OFF
- Control action**
- Alarm 1 (A1)**  
 Alarm action and Energized/Deenergized can be selected by keypad operation.
  - No alarm action
  - High limit alarm (deviation setting), Low limit alarm (deviation setting), High limit alarm with standby (deviation setting), Low limit alarm with standby (deviation setting)  
 Setting range: -(Input span) to input span
  - High/Low limits alarm (deviation setting), High/Low limit range alarm (deviation setting), High/Low limits alarm with standby (deviation setting)  
 Setting range: 0 to input span
  - Process high alarm, Process low alarm  
 Setting range: Input range low limit value to input range high limit value
  - When input has a decimal point, the negative minimum value is -199.9 and the positive maximum value is 999.9.
  - For DC current or voltage inputs, input span is the same as the input range scaling span.
  - For DC inputs, input range low limit (high limit) value is the same as input range scaling low limit (high limit) value.
- Supply voltage**
  - Electric life: 100,000 times
  - 100 to 240V AC 50/60Hz, 24V AC/DC 50/60Hz
  - Allowable voltage fluctuation range: 85 to 264V AC, 20 to 28V AC/DC
- Power consumption** Approx. 8VA
- Ambient temperature** 0 to 50°C
- Ambient humidity** 35 to 85%RH (Non-condensing)
- Mounting method** Screw type mounting bracket  
 Mountable panel thickness: Within 1 to 15mm
- Weight** Approx. 300g
- Attached function** Sensor correction, Setting value lock, Power failure countermeasure, Self-diagnosis, Automatic cold junction temperature compensation (for thermocouple only), Sensor burnout alarm, Input burnout
- Option** Refer to the "Model name".

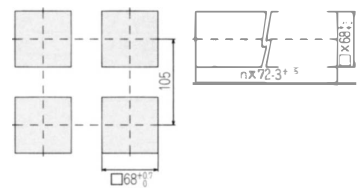


· HB: Heater burnout alarm output  
 · RS-485: Serial communication (C5)  
 · P24: Isolated power output [Dotted lines show options.]

### External dimension



### Panel cutout



· This catalog is as of June 2016, and specifications are subject to change without notice.  
 · If you have any inquiries, please consult us or our agency.