

# DIGITAL INDICATING CONTROLLER

## JCM-33A series



<b>Model name</b>		JCM-33A - □/□, □ □□□	JCM-330 (W72X H72X D100mm)
Alarm1 (A1)	A		Applied (Selectable by key operation)
Control output (OUT1)	R		Relay contact
	S		Non-contact voltage (for SSR drive)
	A		DC current
Input	M		Multi-range input
Supply voltage	1		24V AC/DC
Option	A2		Alarm 2
	LA		Loop break alarm
	W (5A)		Heater burnout alarm
	W (10A)		
	W (20A)		
	W (50A)		
	D □		Control output (OUT2) (Heating/Cooling control output)
			DR: Relay contact
			DS: Non-contact voltage
			DA: DC current
	P24		Isolated power output
	C5		Serial communication (RS-485)
SM		SV1/SV2 external selection	
BK		Color, Black	
TC		Terminal cover	
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	LA	W	D □	P 24	C 5	S M	B K	T C	I P
Combination 1	○	○	○	—	—	○	—	○	○	○
Combination 2	○	○	—	○	—	○	—	○	○	○
Combination 3	—	—	○	○	—	○	—	○	○	○
Combination 4	○	○	—	—	—	○	—	○	○	○
Combination 5	○	○	○	—	—	○	—	○	○	○
Combination 6	○	○	—	○	—	○	—	○	○	○
Combination 7	—	—	○	○	—	○	—	○	○	○
Combination 8	○	○	—	—	○	—	○	○	○	○

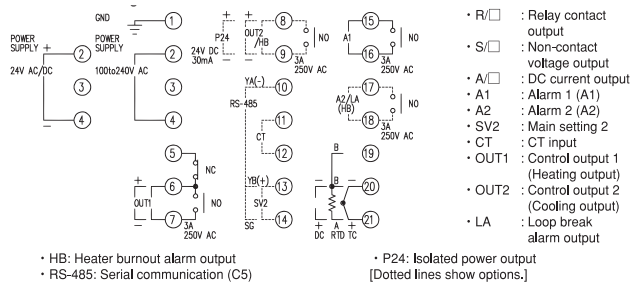
Rated scale		Scale	
Input type			
Thermocouple	K	-200 to 1370 °C	-320 to 2500 °F
	J	-199.9 to 400.0 °C	-199.9 to 750.0 °F
	R	0 to 1760 °C	0 to 3200 °F
	S	0 to 1760 °C	0 to 3200 °F
	B	0 to 1820 °C	0 to 3300 °F
	E	-200 to 800 °C	-320 to 1500 °F
	T	-199.9 to 400.0 °C	-199.9 to 750.0 °F
	N	-200 to 1300 °C	-320 to 2300 °F
	PL-II	0 to 1390 °C	0 to 2500 °F
	C (W/Re5-26)	0 to 2315 °C	0 to 4200 °F
RTD	Pt100	-200 to 850 °C	-300 to 1500 °F
	JPt100	-200 to 500 °C	-300 to 900 °F
DC current	4 to 20mA DC		
	0 to 20mA DC		
DC voltage	0 to 1V DC	-1999 to 9999, -199.9 to 999.9	
	0 to 10V DC	-19.99 to 99.99, -1.999 to 9.999	
	1 to 5V DC		
	0 to 5V DC		

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

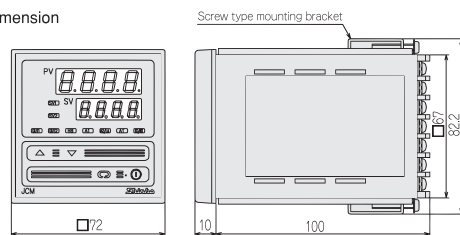
■ Input For the input type, refer to the "Rated scale".  
Thermocouple: External resistance, 100Ω or less  
(However, for B input, external resistance, 40Ω or less)  
RTD : 3-wire system (Resistance per wire: 10Ω or less)  
DC current : Input impedance, 50Ω (Connect 50Ω shunt resistor between input terminals)  
Allowable input current, 50mA or less (when using 50Ω shunt resistor)  
DC voltage : Input impedance, 1MΩ or greater (for input 0 to 1V DC)  
Input impedance, 100kΩ 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. 550Ω  
■ Control action PID, PI, PD, P, ON/OFF  
■ 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.  
Action: ON/OFF action  
Output: Relay contact 1a, 3A 250V AC (resistive load),  
1A 250V AC (inductive load  $\cos \phi = 0.4$ )  
Electric life: 100,000 times  
■ Supply voltage 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".

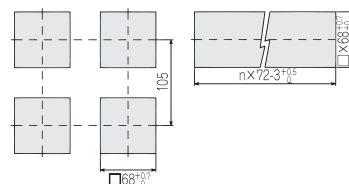
### Terminal arrangement



### External dimension



### Panel cutout



• This catalog is as of June 2003, and specifications are subject to change without notice.  
• If you have any inquiries, please consult us or our agency.



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