

Digital indicating controllers

JCM-33A



Model name

JCM-33A - □/□ □ □ □ □	JCM-330 (W72×H72×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	Rated current: 5A
	W (10A)	Rated current: 10A
	W (20A)	Rated current: 20A
	W (50A)	Rated current: 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)	
	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.

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□	P24	C 5	BK	TC	IP
Combination 1	○	○	○	—	—	○	○	○	○
Combination 2	○	○	—	—	—	○	○	○	○
Combination 3	—	—	○	○	—	○	○	○	○
Combination 4	○	○	—	—	○	○	○	○	○
Combination 5	○	○	○	—	—	○	○	○	○
Combination 6	○	○	—	—	—	○	○	○	○
Combination 7	—	—	○	○	—	○	○	○	○
Combination 8	○	○	—	—	—	○	○	○	○

Rated scale

Input type		Scale	
Thermocouple	K	-200 to 1370 °C	-320 to 2500 °F
		-199.9 to 400.0 °C	-199.9 to 750.0 °F
	J	-200 to 1000 °C	-320 to 1800 °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
		-199.9 to 850.0 °C	-199.9 to 999.9 °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		
	1 to 5V DC	-19.99 to 99.99, -1.999 to 9.999	
	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 ±0.2% of each input span ±1digit, or within ±2°C (4°F), whichever is greater

However, R, S inputs, 0 to 200°C (400°F): Within ±6°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 ±1digit

RTD : Within ±0.1% of each input span ±1digit, or within ±1°C (2°F), whichever is greater

DC current, DC voltage: Within ±0.2% of each input span ±1digit

Input sampling period 0.25 seconds

Control output Relay contact: 1a1b 3A 250V AC (resistive load), 1A 250V AC (inductive load cos φ=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

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.

Action: ON/OFF action

Output: Relay contact 1a, 3A 250V AC (resistive load), 1A 250V AC (inductive load cos φ=0.4)

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

Supply voltage

Approx. 8VA

Power consumption

0 to 50°C

Ambient temperature

35 to 85%RH (Non-condensing)

Ambient humidity

Screw type mounting bracket

Mounting method

Mountable panel thickness: Within 1 to 15mm

Weight

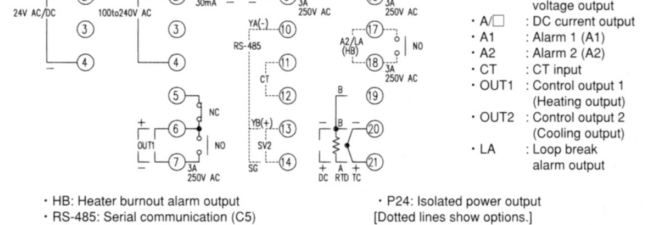
Approx. 300g

Attached function

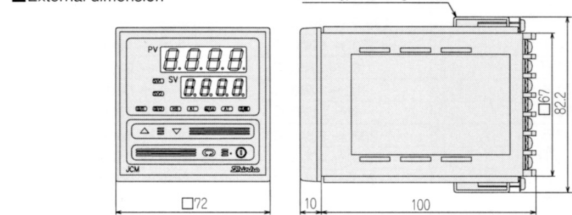
Sensor correction, Setting value lock, Power failure countermeasure, Self-diagnosis, Automatic cold junction temperature compensation (for thermocouple only), Sensor burnout alarm, Input burnout

Refer to the "Model name".

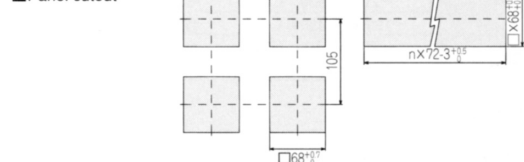
Terminal arrangement



External dimension



Panel cutout



This catalog is as of Apr. 2021, and specifications are subject to change without notice.

If you have any inquiries, please consult us or our agency.

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