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)	Heater burnout alarm: Rated current: 10A
			W(20A)	Heater burnout alarm: Rated current: 20A
			W(50A)	Heater burnout alarm: 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)
			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	L A	W	D□	P 24	C 5	B K	T C	I P
Combination 1	○	○	○	—	—	○	○	○	○
Combination 2	○	○	—	○	—	○	○	○	○
Combination 3	—	—	○	○	—	○	○	○	○
Combination 4	○	○	—	—	○	○	○	○	○
Combination 5	○	○	○	—	—	—	○	○	○
Combination 6	○	○	—	○	—	—	○	○	○
Combination 7	—	—	○	○	—	—	○	○	○
Combination 8	○	○	—	—	○	—	○	○	○

■Rated scale

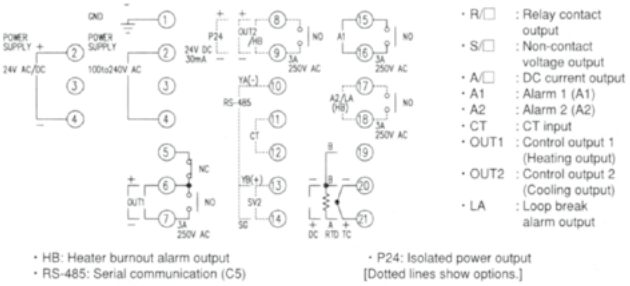
Input type		Scale	
Thermocouple	K	−200 to 1370 ℃	−320 to 2500 ℉
		−199.9 to 400.0℃	−199.9 to 750.0℉
	J	−200 to 1000 ℃	−320 to 1800 ℉
	R	0 to 1760 ℃	0 to 3200 ℉
	S	0 to 1760 ℃	0 to 3200 ℉
	B	0 to 1820 ℃	0 to 3300 ℉
	E	−200 to 800 ℃	−320 to 1500 ℉
	T	−199.9 to 400.0℃	−199.9 to 750.0℉
	N	−-200 to 1300 ℃	−320 to 2300 ℉
	PL-Ⅱ	0 to 1390 ℃	0 to 2500 ℉
	C(W/Re5-26)	0 to 2315 ℃	0 to 4200 ℉
RTD	Pt100	−200 to 850 ℃	−300 to 1500 ℉
		−199.9 to 850.0℃	−199.9 to 999.9℉
	JPt100	−200 to 500 ℃	−300 to 900 ℉
		−199.9 to 500.0℃	−199.9 to 900.0℉
DC current	4 to 20mA DC	−1999 to 9999, −199.9 to 999.9 −19.99 to 99.99, −1.999 to 9.999	
	0 to 20mA DC		
DC voltage	0 to 1V DC		
	0 to 10V DC		
	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.

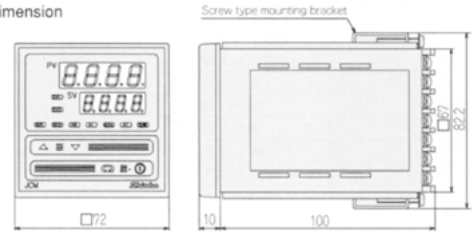
■Input For the input type, refer to the "Rated scale".
Thermocouple: External resistance, 100Ω or less
(However, for B input, external resistance, 40Ω or less)
RTD : 3-wire system (Resistance per wire: 10Ω or less)
DC current : Input impedance, 50Ω (Connect 50Ω shunt resistor between input terminals)
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 ±0.2% of each input span ±1digit, or within ±2℃(4℉), whichever is greater
However , R, S inputs, 0 to 200℃(400℉): Within ±6℃(12℉)
B input, 0 to 300℃(600℉): Accuracy is not guaranteed.
K, J, E, T, N inputs, less than 0℃ (32℉): Within 0.4% of each input span ±1digit
RTD : Within ±0.1% of each input span±1digit, or within ±1℃ (2℉), 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: 12+3−2V 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 ϕ =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℃
■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
■Altitude 2,000m or less
■Option Refer to the "Model name".

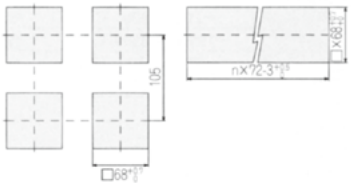
■Terminal arrangement



■External dimension



■Panel cutout



・This catalog is as of July 2024, and specifications are subject to change without notice.
・If you have any inquiries, please consult us or our agency.

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