

Order code table

●MAC3A・MAC3B

Item	Code	Specification	
1. Series	MAC3A-	DIN standard: Height 96×Width 96×Depth 65mm Panel Opening Size: Height 92×Width 92mm	
	MAC3B-	DIN standard: Height 96×Width 48×Depth 62mm Panel Opening Size: Height 92×Width 92mm	
2. Input	M	Thermocouple (k, J, T, E, R, S, U, N, B, Pt, Wre5—26) Input resistor about 500kΩ or more Resistance bulb (Pt100, JPt100) Specified current about 0.25mA Voltage (0~10mV, 0~20mV, -10~10mV, 0~50mV, 0~100mV) Input-resistance 500kΩ or more	
	V	Voltage (0~1V, 0~2V, -1~1V, 1~5V, 0~5V, 0~10V) Input resistance 500kΩ or more	
	I	Current (4~20mA, 0~20mA) Reception resistance 250Ω	
3. Control Output 1	C	Contact 1a 240V AC 2A (Resistance load)	
	S	Voltage pulse (SSR drive voltage) 12V±1.5VDC Maximum load current 20 mA DC	
	I	Current 4~20mA DC Maximum load resistance 500Ω	
	V	Voltage 0~10V DC Maximum load current 2mA DC	
4. Power Supply	F-	100~240V±10% AC	
	L-	24V±10% AC/DC	
5. Event Output	E	Event outputs 1,2 (two points) Contact 1a 240V AC 2A (Resistance load)	
6. Option 1 (choose one)	Control output 2	N-	None
		C-	Contact 1a 240V AC 2A (Resistance load)
		S-	Voltage pulse (SSR drive voltage) 12V±1.5VDC Maximum load current 20 mA DC
		I-	Current 4~20mA DC Maximum load resistance 500Ω
		V-	Voltage 0~10V DC Maximum load current 2mA DC
	Event output	E-	Event output 3(one point) Contact 1a 240V AC 2A (Resistance load)
DI	D-	DI 4 (one point) No voltage contact or OC gate (Select Run / stop, manual / automatic, AT, SV number, etc.)	
7. DI (Option 2)	N	None	
	D	DI 1, 2, 3 (three points) No voltage contact or OC input (Select Run / stop, manual / automatic, AT, SV number, etc.)	
8. CT Input (Option 3)	N	None	
	H	CT Input Two points, For heater break alarm, CT ordered separately.	
9. Analog output (Option 4)	N	None	
	T	Current 4~20 mA DC Load resistance 300Ω or less	
	V	Voltage 0~5V DC Maximum load current 2mA DC	
10. Communication (Option 5)	N	None	
	R	RS485 communication interface with MODBUS and SHIMAX protocol	
11. Program function	P	4 pattern: 40 step program	

Optional Product

Name of product	Model
CT sensor (Product of U_RD co.,)	CTL-6-S-H(0.0~50.0A)

●MAC3C・MAC3D

Item	Code	Specification	
1. Series	MAC3C—	DIN standard: Height 72×Width72×Depth65mm Panel Opening Size: Height 68×Width68 mm	
	MAC3D—	DIN standard: Height 48×Width48×Depth62mm Panel Opening Size: Height 45×Width45 mm	
2. Input	M	Thermocouple (K, J, T, E, R, S, U, N, B, PLII,WRε5-26) Input resistor about 500kΩ or more Resistance bulb (Pt 100, JPt 100) Specified current about 0.25mA Voltage (0~10mV, 0~20mV, -10~10mV, 0~50mV, 0~100mV) Input-resistance 500kΩ or more	
	V	Voltage (0~1V, 0~2V, -1~1V, 1~5V, 0~5V, 0~10V) Input resistance about 500kΩ or more	
	I	Current (4~20mA, 0~20mA) Reception resistance 250Ω	
3. Control Output 1	C	Contact 1a 240V AC 2A (Resistance load)	
	S	Voltage pulse (SSR drive voltage) 12V±1.5VDC Maximum load current 20 mA DC	
	I	Current 4~20mA DC Maximum load resistance 500Ω	
	V	Voltage 0~10V DC Maximum load current 2 mA DC	
4. Power Supply	F—	100~240V±10% AC	
	L—	24V±10% AC/DC	
5. Event Output	E	Event output 1, 2 (two points) Contact 1a 240V AC 2A(Resistance load)	
6. Option 1 (choose one)	Control output 2	N—	None
		C—	Contact 1a 240V AC 2A (Resistance load)
		S—	Voltage pulse (SSR drive voltage)12V±1.5VDC Maximum load current 20 mA DC
		I—	Current 4~20 mA DC Maximum load resistance 500Ω
	V—	Voltage 0~10V DC Maximum load current 2 mA DC	
	Event Output	E—	Event output 3 (one point) contact 1a 240V AC 2A (Resistance load)
DI	D—	DI 4 (one point) No voltage contact or OC gate (Select Run / stop, manual / automatic, AT, SV number, etc.)	
7. Option 2 (choose one)	DI	N	None
		D	DI 1, 2, 3 (three points) No voltage contact or OC gate (Select Run / stop, manual / automatic, AT, SV number, etc.)
	CT input	H	CT Input Two points: For heater break alarm, CT ordered separately.
8. Option 3 (choose one)	Analog output	N	None
		T	Current 4~20 mA DC Load resistance 300Ω or less
	V	Voltage 0~5 V DC Maximum load current 2 mA DC	
Communication	R	RS485 communication interface with MODBUS and SHIMAX protocol	
9. Program function	P	4pattern:40 step program	

■Measuring Range Character Table

Input type	Character	Measuring range		
		Unit code (°C)	Unit code (°F)	
Multi input	Thermo couple	R	0 ~ 1700	0 ~ 3100
		K	-199.9 ~ 400.0	-300 ~ 700
		K	0 ~ 1200	0 ~ 2200
		K	0.0 ~ 300.0	0 ~ 600
		J	0 ~ 600	0 ~ 1100
		T	-199.9 ~ 200.0	-300 ~ 400
		E	0 ~ 700	0 ~ 1300
		S	0 ~ 1700	0 ~ 3100
		U	-199.9 ~ 200.0	-300 ~ 400
		N	0 ~ 1300	0 ~ 2300
		B	0 ~ 1800	0 ~ 3300
		*3 Wre5-26	0 ~ 2300	0 ~ 4200
		*4 PLII	0 ~ 1300	0 ~ 2300
		Resistance bulb Pt100	P1	-200 ~ 600
P2	-100.0 ~ 200.0		-150.0 ~ 400.0	
*6 P3	0.0 ~ 100.0		0.0 ~ 200.0	
*6 P4	-50.0 ~ 50.0		-60.0 ~ 120.0	
P5	-100.0 ~ 300.0		-150.0 ~ 600.0	
JP1	-200 ~ 500		-300 ~ 900	
JP2	-100.0 ~ 200.0		-150.0 ~ 400.0	
*6 JP3	0.0 ~ 100.0		0.0 ~ 200.0	
*6 JP4	-50.0 ~ 50.0		-60.0 ~ 120.0	
*6 JP5	-100.0 ~ 300.0		-150.0 ~ 600.0	

Input Type	Character	Measuring Range
Multi input	Voltage (mV)	0 ~ 10
		0 ~ 100
		*7 -10 ~ 10
		0 ~ 20
		0 ~ 50
	Voltage (V)	1 ~ 5
		0 ~ 5
Current (mA)	-1 ~ 1	
	0 ~ 1	
	0 ~ 2	
	0 ~ 10	
	4 ~ 20	
0 ~ 20		

Thermocouple B, R, S, K, E, J, T, N: JIS / IEC
Resistance bulb Pt 100: JIS / IEC
JPt 100: the former JIS

- *1 Thermocouple B: Below 400°C(752°F) is not covered by accuracy warranty
- *2 Thermocouple Accuracy of the range of 0~100°C (-148°F) of the indicated value at K, T, and U, is ±0.5%FS. Accuracy of -100°C or under is ±1.0% FS
- *3 Thermocouple Wre5-26: Product of Hoskins Mfg. co.,
- *4 Thermocouple PLII:Platinel
- *5 Thermocouple U: DIN 43710
- *6 Resistance bulb Pt/JPt 50.0°C. Accuracy of 0.0~100.0°C is ±0.3% FS.
- *7 Voltage (mV) 0~10 mV, Accuracy of ±0~10 mV is ±0.3% of input range

Scaling range:
-1999~9999 count
Spang:10~10000 count
Change of decimal point's position is possible.
(no decimal point,0.1,0.01,0.001)