

DIGITAL CONTROLLER

SERIES SR30

- DIN Size 96 (H) × 96 (W) mm
- Short Body Type (78.5mm)
- Selectable Setting (high or low)
Deviation Alarm-Optional



Series SR30

SPECIFICATIONS

Display Type / Accuracy:	Digital Display / $\pm 0.5\%$ FS + 1 digit	Panel Cutout:	92 (H) × 92 (W) mm
Setting Type / Accuracy:	Digital / $\pm 0.7\%$ FS	Panel Thickness:	1~4mm
Input:		Weight:	Approx. 470g
R.T.D.:	Pt100	Control Output:	
Amperage:	2mA	Contact:	240V AC, 1A / inductive load, 2.5A / resistive load
Lead wire tolerable resistance:	2 Ω max. / wire	SSR Voltage:	15V DC / RA, 20mA max.
Thermocouple:	J, K, L, R, S	Current:	4~20mA DC / RA, 600 Ω max.
Input resistance:	200k Ω	Alarm:	Selectable setting (high or low) deviation type
External resistance:	100 Ω max.	Setting Range:	-10~0~+10% FS
Burnout circuit:	Standard	Output:	Contact
Voltage:	0~10mV DC / 0~100mV DC / 0~1V DC Linear	Alarm Sensitivity:	0.3% FS Fixed
Current:	4~20mA DC Linear	Contact Rating:	240V AC, 1A / inductive load, 2.5A / resistive load
Control Mode:		Power Consumption:	Approx. 4VA
On / Off:	Sensitivity (S): 0.3% FS Fixed or 0.3~5% FS variable	Operating Ambient Temperature Range:	-10~+50°C
Proportioning:	Proportional Band (PB): Approx. 4% FS fixed or 1~20% FS variable Manual Reset (MR): Adjustable from front face	Operating Ambient Humidity:	90% RH max.
External Dimensions:	96 (H) × 96 (W) × 78.5 (D) mm	Insulation Resistance:	500V DC, 20M Ω min.between the input and power supply terminals
		Dielectric Strength:	1 min. at 500V AC between input and power supply terminals

ORDERING INFORMATION

ITEMS	CODE		SPECIFICATIONS
SERIES	SR30-		Digital Display Controller
INPUT	1		Thermocouples, Input resistance: 200k Ω , External resistance: 100 Ω max.
	2		R.T.D. (Pt100), Amperage: 2mA, Tolerable resistance: 2 Ω max. / wire
	3		Voltage, 0~10mV DC Linear, Input resistance: 200k Ω
	4		Current, 4~20mA DC Linear, Receiving Impedance: 250 Ω
	9		0~100mV DC, 0~1V DC (For others, please consult before ordering.)
CONTROL MODE	01		Proportioning, PB: Approx. 4% FS Fixed
	31		Proportioning, PB: 1~20% FS Variable
	02		On / Off (2-position), Sensitivity (S): 0.3% FS Fixed
	32		On / Off (2-position), Sensitivity adjust (SA): 0.3~5% FS
	99		Others (Please consult before ordering.)
CONTROL OUTPUT	Y-		Contact, 240V AC, 1A / Inductive, 2.5A / Resistive load, Cycle: 30 sec.
	I-		Current (Proportioning type only), 4~20mA DC / RA, Load resistance: 600 Ω max.
	P-		SSR voltage, 15V DC / RA, Max. current: 20mA, Cycle: 3 sec.
	X-		Others (Please consult before ordering.)
ALARM	00		None provided
	93		Selectable setting (High or Low) deviation alarm, -10~0~10% FS
POWER SUPPLY	11-		100~110V / 200~220V AC $\pm$ 10%, 50 / 60Hz
	12-		110~120V / 220~240V AC $\pm$ 10%, 50 / 60Hz
	99-		Others (Please consult before ordering.)
INPUT STANDARD	N		None
	J		JIS
	F		JIS (New Pt100-JIS)
	D		DIN
	A		ANSI
TYPE OF INPUT	J		Thermocouple (J)
	K		Thermocouple (K)
	R		Thermocouple (R)
	S		Thermocouple (S)
	Q		Thermocouple (L) (DIN 43710)
	P		R.T.D. (Pt100)
	L		Linear — voltage and current inputs
	X		Others (Please consult before ordering.)
MEASURING RANGE			See Measuring Range Codes.
LEGEND	N		No Legend
	C		$^{\circ}$ C Temperature
	F		$^{\circ}$ F Temperature
	H		%RH Humidity
	P		% Percent
	V		V Volgate
	E		mV Volgate
	A		A Current
	I		mA Current
	X		Others (Please consult before ordering.)
REMARKS	0		Without
	9		With (Please consult before ordering.)

MEASURING RANGE CODES

INPUT	RANGE	CODE
R.T.D. (Pt100)	-99.9~ 99.9 $^{\circ}$ C	579
	0~ 99.9 $^{\circ}$ C	781
	0~ 399 $^{\circ}$ C	792
Thermo-couple	J 0~ 399 $^{\circ}$ C	792
	K 0~ 399 $^{\circ}$ C	792
	K 0~ 999 $^{\circ}$ C	874
	K 0~1199 $^{\circ}$ C	877
	L 0~ 399 $^{\circ}$ C	792
	R * 0~1699 $^{\circ}$ C	885
	S * 0~1699 $^{\circ}$ C	885

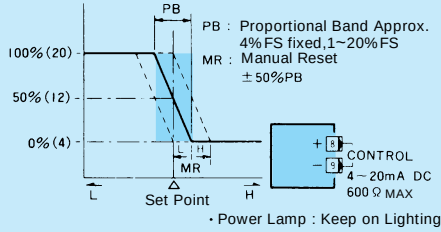
INPUT	RANGE	CODE
R.T.D. (Pt100)	0~ 399 $^{\circ}$ F	792
	0~ 799 $^{\circ}$ F	871
Thermo-couple	J 0~ 499 $^{\circ}$ F	795
	J 0~ 799 $^{\circ}$ F	871
	K 0~ 999 $^{\circ}$ F	874
	K 0~1199 $^{\circ}$ F	877
	K 0~1999 $^{\circ}$ F	887
Voltage / Current	0~99.9%RH	781

*Effective measuring range is 600~1699 $^{\circ}$ C.
Display accuracy for this range is 0.7% FS+1-digit

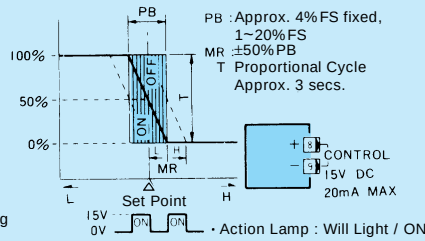
CONTROL CONFIGURATIONS

Proportionig

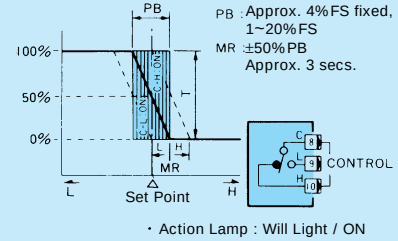
□ Current Output / Heating Exclusive



□ SSR Voltage Output / Heating Exclusive

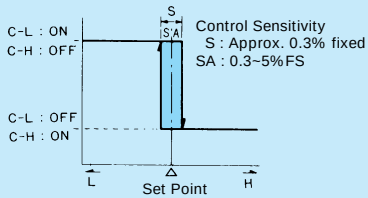


□ Contact Output / Heating Cooling

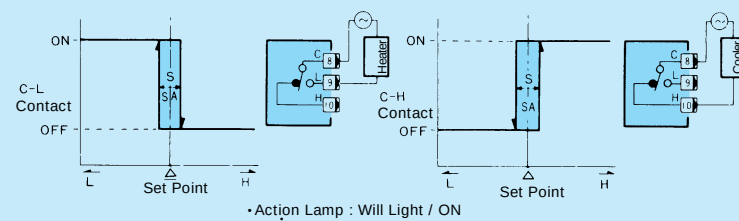


On / Off (2-Postition)

□ Use the C-L terminals for heating

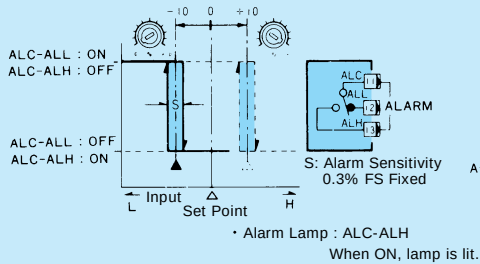


□ Use the C-H terminals for cooling

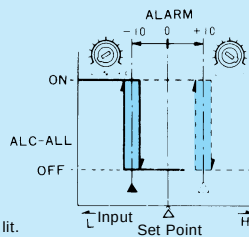


ALARM CONFIGURATIONS

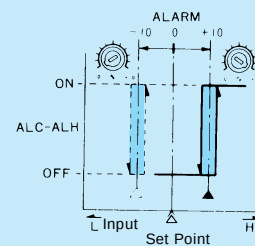
ALARM



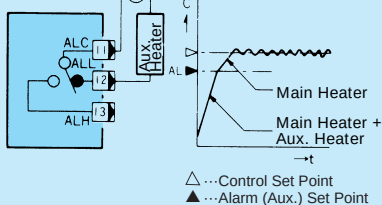
□ ALC-ALH Terminals



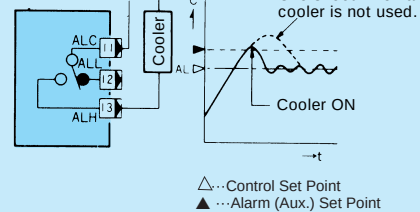
□ ALC-ALL Terminals



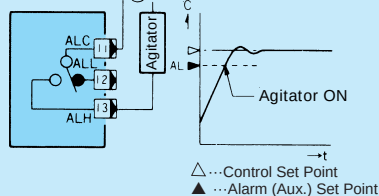
Auxiliary Heating Example Power Supply



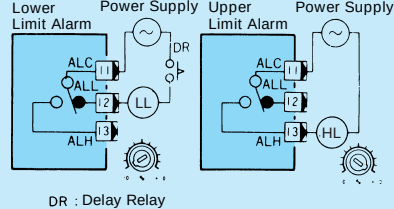
Auxiliary Cooling Example Power Supply



Sequence Example Power Supply

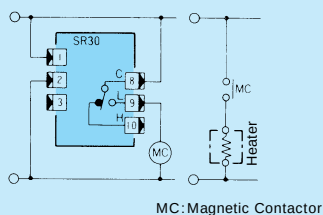


Alarm Example

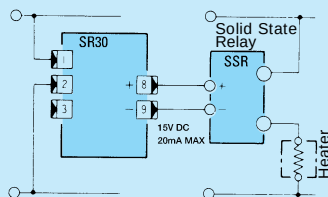


WIRING EXAMPLES

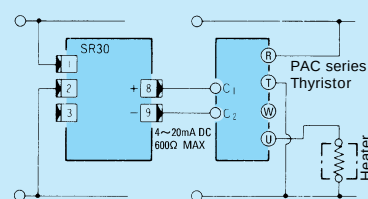
Contact Output



SSR Voltage Output

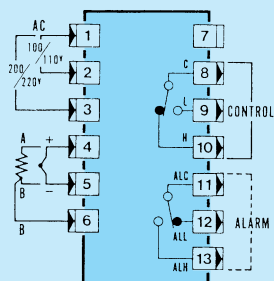


Current Output (Proportioning only)

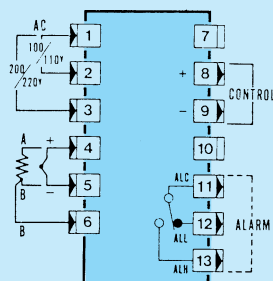


TERMINAL ARRANGEMENT

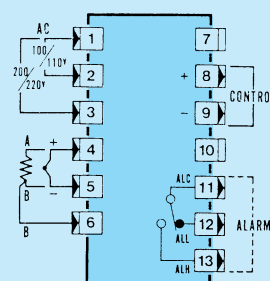
Contact Output



SSR Voltage Output



Current Output



EXTERNAL DIMENSIONS & PANEL CUTOUT

