

- Precision Control
- Advanced Reliability
- Reasonable Price
- Various Communication Protocols
- High Resolution

Temperature Controller

NOVA100 SERIES



Your Best Partner!

- ▶ High Input Resolution - A/D 18 Bits
- ▶ Various Communication Protocols
 - PC Link, MODBUS, SYNC Master, SYNC Slave
- ▶ Precision Retransmission Output
 - Resolution 14 Bits
- ▶ Multi Input - T/C, RTD, DCV
- ▶ Controlling and monitoring Controller with PC
- ▶ Advanced PID Algorithm
 - with built-in Auto-tuning Function
- ▶ Over-Shooting Suppression
- ▶ 2 Point Alarm Outputs as Standard Option
- ▶ Powerful Communication
 - and 31 Sets Multi-drop Function
- ▶ Free Operation Program



Specifications

Item		ST140/160/170/180/190	SD160 / SD190
PV/SP Display		Each 4 Digits	Each 4 Digits
Sampling Time		250 ms	250 ms
Accuracy		±0.2% of FS (Inquire separately for PTC and JPTB)	±0.2% of FS (Inquire separately for PTC and JPTB)
Control Loop and Mode		Single-Loop Control	-
Running Mode		Auto / Manual	-
Number of SetPoint		1 SP (1 Zone PID)	-
Input	Type	Universal Input (1 Point)	Universal Input (1 Point)
	Sensor	T/C	K, J, E, T, R, B, S, L, N, U, W, Platinel II
		RTD	Pt100, JPt100
		DCV	-10 ~ 20mV, 0 ~ 100mV, 0.4 ~ 2.0V DC, 1 ~ 5V DC, 0 ~ 10V DC (4 ~ 20mA, 0 ~ 20mA, External Resistance 250 Ω , 500 Ω)
Control Output	Kind	Type	1 Point
		Time-proportional PID	Relay, SSR(V-Pulse)
		Continuous PID	SCR(4 ~ 20mA DC)
Alarm	Capacity		ST'D 2 Points / Max 4 Points <i>*note1</i>
	Type		21 Types - High/Low Temp. Limit, Deviation Limit... <i>*note2</i>
Retransmission Output		4 ~ 20mA(PV, SP, MV)	4 ~ 20mA(PV)
HBA		CTL-6-S or 800:1 CT	-
Communication Protocols		PC-Link, MODBUS(ASCII, RTU), SYNC Master, SYNC Slave	PC-Link, MODBUS(ASCII, RTU)
Power Supply and Consumption		100 ~ 240V AC, 50 ~ 60Hz / Max. 6W below	100 ~ 240V AC, 50 ~ 60Hz / Max. 6W below
Model	Suffix Code	Description	
ST140/160/ 170/180/190 SD160/190	- □ □	Digital Controller	Digital Indicator
Control Output	S	SSR	-
	A	SCR(4 ~ 20mA)	-
	R	RELAY	-
	0	-	Standard
Power	0	100 ~ 240V AC	100 ~ 240V AC
	1	24V DC	24V DC
Option	/RET	Retransmission Output <i>*note4</i>	Retransmission Output
	/RS	RS485 <i>*note4</i>	RS485
	/HBA	Heater Breaking Alarm <i>*note4</i>	-
	/ALM3	Relay Output 1 Point <i>*note5</i>	Relay Output 1 Point <i>*note5</i>
	/ALM4	Relay Output 1 Point <i>*note4, *note5</i>	Relay Output 1 Point <i>*note4, *note5</i>

**note1* : ST140,160,180 - Max 2 Points

**note4* : RET, RS, HBA, ALM4 to be purchased separately (But, Available RS, HBA)

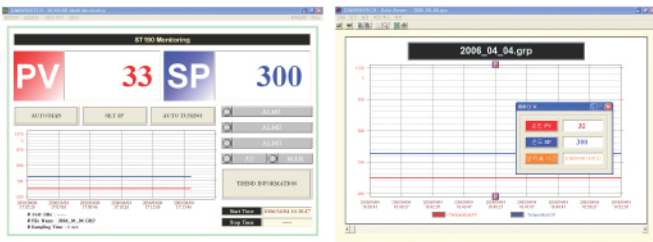
**note2* : In case of HBA Option - 22 Types

**note5* : Not use ST140,160,180, SD160

**note3* : SD160 - Max 2 Points

Special Features

Free Application Program

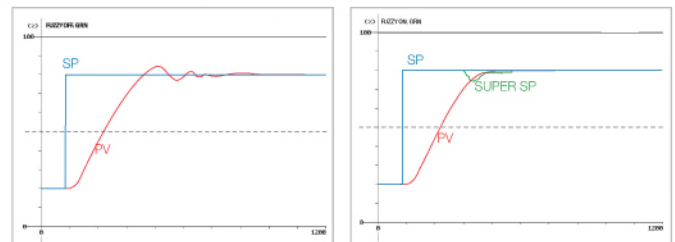


▲ Application Program Main Screen

▲ Application Program Graph Screen

User can control and monitor NOVA100 with free operation program on PC, it is improved convenience and economy.

Powerful Fuzzy Function



▲ General Control

▲ Fuzzy Control

It is a effective control function about overshoot in case of serious load alternation or frequent changing SP system.

Powerful Communication Function



PROTOCOL - PC LINK, MODBUS(ASCII, RTU),
SYNC Master, SYNC Slave
Max 1.2Km with RS485, Max 31 Sets Multi-drop

Examples

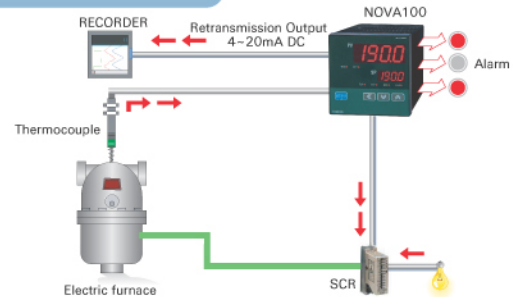
1.Touch Panel Configuration



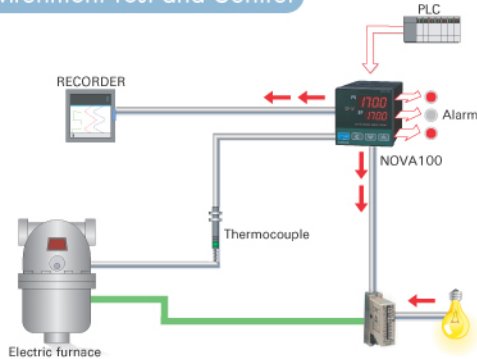
Touch Screen
GP Series

NOVA100

2.Electric Furnace Control

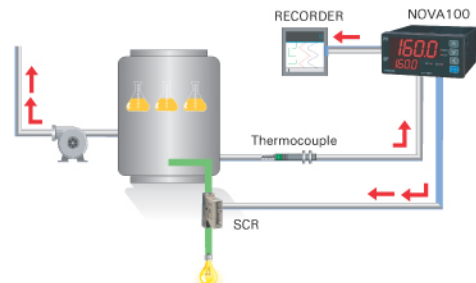


3.Environment Test and Control



Electric furnace

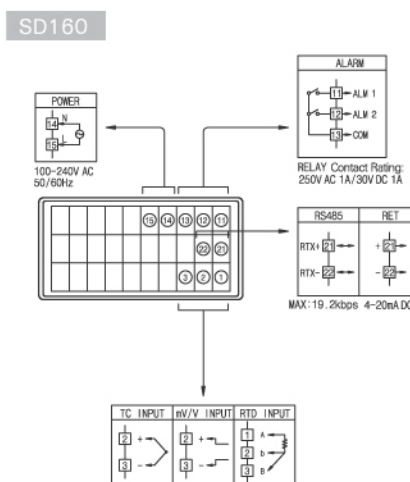
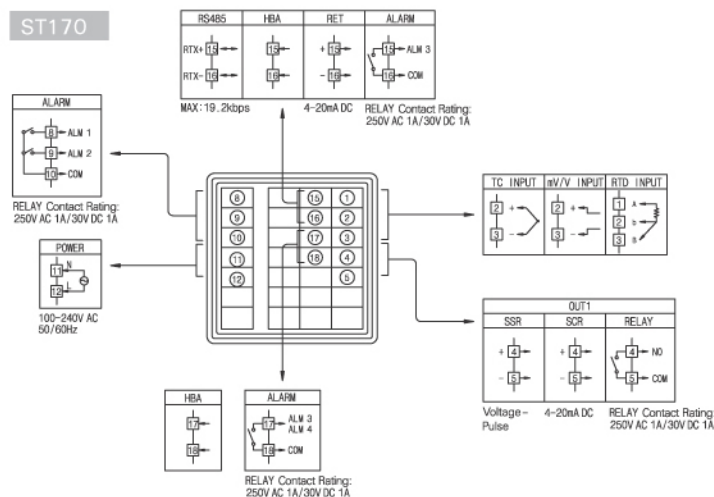
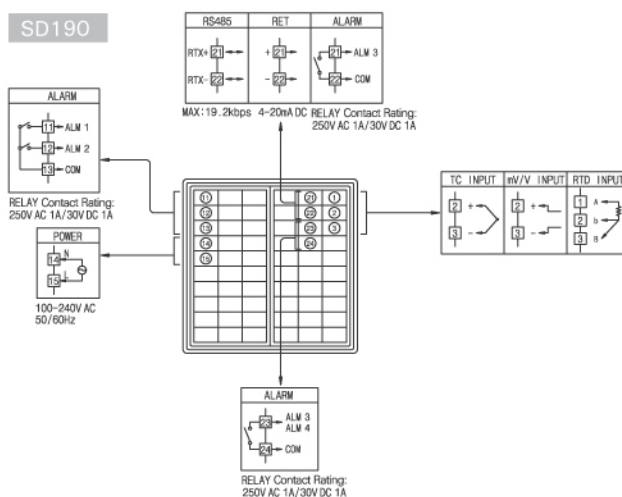
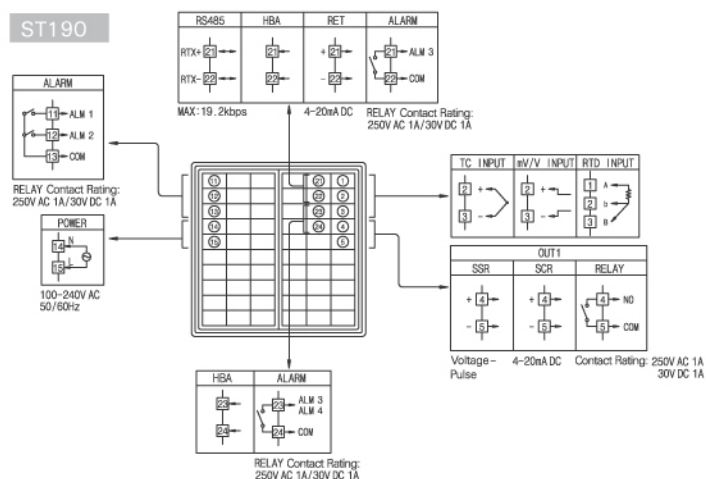
4. Sterilization Temperature Control



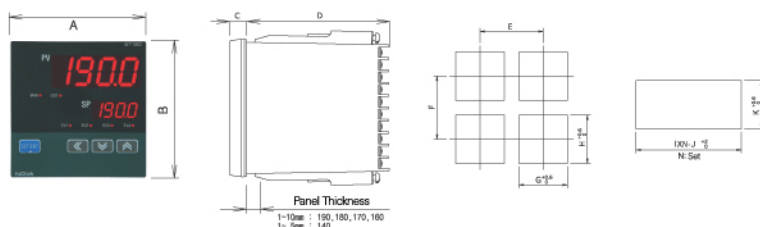
5. Soldering Machine Control



● Terminal Arrangement and Extension Wiring



- Dimension and Panel Cutting Size



MODEL	A	B	C	D	E	F	G	H	I	J	K
ST190	96	96	11.4	99.6	120	120	92	92	96	4	92
ST180	48	96	11.4	99.6	70	120	45	92	48	3	92
ST170	72	72	11.4	99.6	90	90	68	68	71	3	68
ST160	96	48	11.4	99.6	120	70	92	45	-	-	-
ST140	48	48	11.0	99.6	70	70	45	45	48	3	45
SD190	96	96	11.4	99.6	120	120	92	92	96	4	92
SD160	96	48	11.4	99.6	120	70	92	45	-	-	-



Before using this product, read the appended user's manual carefully to ensure proper and safe operation.



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