



Paperless Recorder

Datasheet

SUP-R6000C

SUP-R6000C is featured with outstanding performance and easy operating Function along with high visibility Color LCD display,universal inputs with high speed of sampling rate and accuracy. Measured data is stored into memory and can be analyzed on PC trough communication.

Basic Functions

- Up to 48 channels of universal input
- UP to 18 Alarm Output Relays
- With 24V Power distribution Output
- Communication type: RS485, RS232C.
- With a USB data transfer interface



Display & Operation

- Multiple display Function : choose the display your way
- Use date and time calendar search functions to Review historical data .
- 7 inch high brightness color graphics and color LCD (800 * 480pixels)

Reliability and Security

- Dust- and splash-proof front panel
- Power Fail Safeguard:All the data stored in Flash memory, make sure that all the historical data and configuration parameters will not lost when power fail. Real time clock power supply by lithium batteries.

Data Acquisition Software

- Software for varieties of tasks : analysis, settings, and acquisition

Power supply

- Voltage range: AC 85 ~ 264 V (power supply of the switches), 50/60 Hz;
DC12 ~ 36 V (power supply of the switches);

Normal operating condition

- Temperature : -10 ~ 50°C Humidity : 10 ~ 90%%RH(without condensation of moisture)

Technical Specification

Input measurement

Input signal	<p>Current: 0 ~ 20 mA, 0 ~ 10 mA, 4 ~ 20 mA, 0 ~ 10 mA SQRT, 4 ~ 20 Ma SQRT</p> <p>Voltage: 0 ~ 5 V, 1 ~ 5 V, 0 ~ 10 V, ± 5 V, 0 ~ 5 V SQRT, 1 ~ 5 V SQRT, 0 ~ 20 mV, 0 ~ 100 mV, ± 20 mV, ± 100 mV</p> <p>Thermal resistance: Pt100, Cu50, Cu53, Cu100, BA1, BA2</p> <p>Linear resistance: 0 ~ 400 Ω</p> <p>Thermocouple: B, S, K, E, T, J, R, N, F2, Wre3-25, Wre5-26</p>
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Output

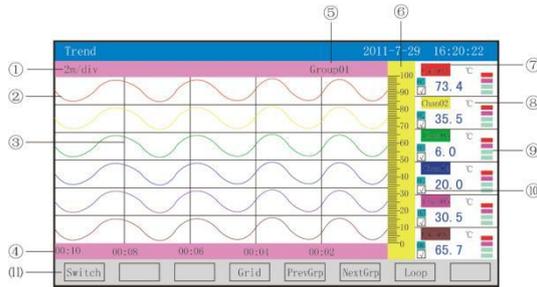
Output signal	<p>Analog output: 4 ~ 20 mA (load resistance $\leq 380 \Omega$), 0 ~ 20 mA (load resistance $\leq 380 \Omega$), 0 ~ 10 mA (load resistance $\leq 760 \Omega$), 1 ~ 5 V (load resistance $\geq 250 K\Omega$), 0 ~ 5 V (load resistance $\geq 250 K\Omega$), 0 ~ 10 V (load resistance $\geq 10 K\Omega$)</p> <p>Alarm output: normally open relay contact output, where the contact capacity is 1 A/250 VAC (resistive load) (! Note: Please do not carry load directly in case the load exceeds the contact capacity of relay.)</p> <p>Feed output: DC24 V $\pm 10\%$, load current ≤ 200 mA</p> <p>Communication output: RS485/RS232 communication interface, 2,400 ~ 19,200 bps baud rate (able to be set); standard MODBUS RTU communication protocol is adopted; the communication distance of RS-485 can be as long as 1 kilometer; the communication distance of RS-232 can be as long as 15 m; EtherNet communication interface is adopted, where the communication speed is 10 M.</p>
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Comprehensive parameters

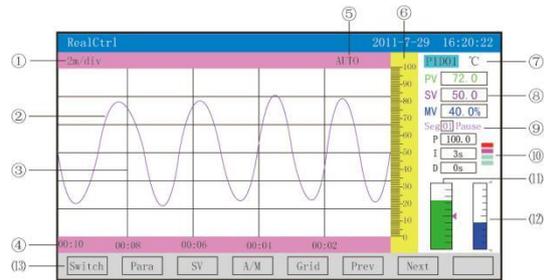
Measurement accuracy	0.2% FS $\pm 1d$
Sampling period	1 s
Setting mode	The button is set in the form of panel soft touch; set values of parameters are locked with passwords and will be saved permanently in case of outage.
Display method	7-inch 800 * 480 dot-matrix widescreen TFT high brightness color graphics and LCD display; LED backlight; with clear pictures and wide visual angle. Display contents can be composed of characters, figures, conditional curves, bar graphs, etc.; through panel button, page turning, forward and backward search of historical data, time scale change of curves, etc. can be realized.
Data backup	Data backup and conversion storage of USB flash disk and SD card are support, where the maximum capacity is 32 GB; FAT and FAT32 formats are supported.
Storage capacity	The capacity of the internal Flash memory is 64 M Byte.
Recording interval	Nine options including 1, 2, 4, 6, 15, 30, 60, 120 and 240 s can be selected.

Display

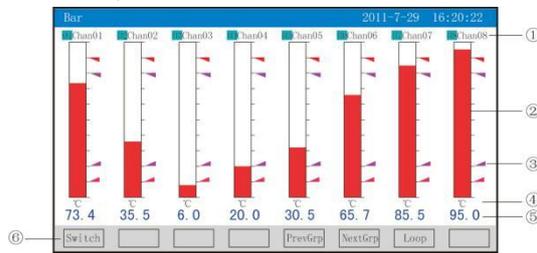
1. Real-time Curve



2. Real-time control



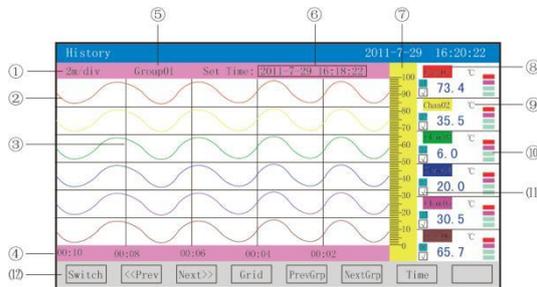
3. Bar Graph



4. Digital Display



5. Historical Curve



6. Alarm List

No.	Chan	Name	Alarm Time	Clear Time	Type
013	01	Chan01	2011-7-29 16:00:22	2011-7-29 16:00:22	HI
012	01	Chan01	2011-7-29 16:01:22	2011-7-29 16:01:22	HI
011	01	Chan01	2011-7-29 16:02:22	2011-7-29 16:02:22	HI
010	01	Chan01	2011-7-29 16:03:22	2011-7-29 16:03:22	HI
009	01	Chan01	2011-7-29 16:04:22	2011-7-29 16:04:22	HI
008	01	Chan01	2011-7-29 16:05:22	2011-7-29 16:05:22	HI
007	01	Chan01	2011-7-29 16:06:22	2011-7-29 16:06:22	HI
006	01	Chan01	2011-7-29 16:07:22	2011-7-29 16:07:22	HI
005	01	Chan01	2011-7-29 16:08:22	2011-7-29 16:08:22	HI
004	01	Chan01	2011-7-29 16:09:22	2011-7-29 16:09:22	HI
003	01	Chan01	2011-7-29 16:10:22	2011-7-29 16:10:22	HI
002	01	Chan01	2011-7-29 16:11:22	2011-7-29 16:11:22	HI
001	01	Chan01	2011-7-29 16:12:22	2011-7-29 16:12:22	HI

7. File List

No.	Start Time	End Time	Int	Cond	Status
008	2011-7-29 15:30:10	2011-7-29 15:30:30	IS	Pwr	Poff stop
005	2011-7-29 15:30:10	2011-7-29 15:30:30	IS	Pwr	Poff stop
004	2011-7-29 15:29:40	2011-7-29 15:30:00	IS	Pwr	Man stop
003	2011-7-29 15:29:10	2011-7-29 15:29:30	IS	Pwr	Poff stop
002	2011-7-29 15:28:40	2011-7-29 15:29:00	IS	Pwr	Poff stop
001	2011-7-29 15:28:10	2011-7-29 15:28:30	IS	Pwr	Poff stop

Record Time: 000004-00h:2m:00s

8. Menu for Printing

Print

Print: RealData

File No. 001

Start Time 2011-7-29 16:10:22

End Time 2011-7-29 16:20:22

Channel Chan01

Interval 001

Storage Function

Data backup	Data backup and conversion storage of USB flash disk and SD card are support, where the maximum capacity is 32 GB; FAT and FAT32 formats are supported.
Storage capacity	The capacity of the internal Flash memory is 64 M Byte.
Recording interval	Nine options including 1, 2, 4, 6, 15, 30, 60, 120 and 240 s can be selected.
Storage length (continuous record without power-off)	<p>6 days (1 s interval) – 23301 days (240 s interval)</p> <p>Calculation formula: recorded time (day)</p> $\frac{64 * 1,024 * 1,024 * \text{recording interval (S)}}{\text{channel number} * 2 * 24 * 3,600}$ <p>(! Note: For calculation of channel number, the program divides the channel number into five options, namely 4, 8, 16, 32 and 64, and the bigger figure should be regarded as the channel number for calculation in case the channel number of the instrument is between the said two options. For example: If the channel number of the instrument is 12, then 16 should be adopted in the formula.)</p>

Alarm Output Function

Max 18 channel alarm output, normally open relay contact output, where the contact capacity is 1 A/250 VAC (resistive load)

(! Note: Please do not carry load directly in case the load exceeds the contact capacity of relay.)

Communication Function

RS485/RS232 communication interface, 1,200 ~ 57,600 bps baud rate (able to be set); standard MODBUS RTU communication protocol is adopted;

Ordering code

SUP-R6000C-01-1A-00-02-R1-0-E0													Description	
SUP-R6000C	-	-	-	-	-	-	-	-	-	-	-	-	-	
	01													1
	02													2
	04													4
	06													6
	08													8
	10													10
	12													12
	16													16
Input Channel	20													20
	24													24
	28													28
	32													32
	36													36
	40													40
	44													44
	48													48
	XX													Other
		00												None
		1A												1 Channel 4-20mA
		2A												2 Channels 4-20mA
		4A												4 Channels 4-20mA
Transmitter Output		6A												6 Channels 4-20mA
		8A												8 Channels 4-20mA
		AA												10 Channels 4-20mA
		BA												12 Channels 4-20mA
		XX												Other
			00											None
			1A											1 Channel 4-20mA
			2A											2 Channels 4-20mA
			4A											4 Channels 4-20mA
			6A											6 Channels 4-20mA
			8A											8 Channels 4-20mA
PID			2S											2 Channels Relay
			4S											4 Channels Relay
			6S											6 Channels Relay
			8S											8 Channels Relay

PID	XX								Other
SPST Relay Output	00								None
	01								1 Channel
	02								2 Channels
	04								4 Channels
	06								6 Channels
	08								8 Channels
	10								10 Channels
	12								12 Channels
	14								14 Channels
	16								16 Channels
	18								18 Channels
		XX							
Communication Output	00								None
	R1								RS485
	R2								RS232
	R4								RS232 + Printer
	Y0								Ethernet
	Y1								RS485+Ethernet
	Y2								RS232+Ethernet
	Y4								RS232+Printer+Ethernet
Operational Function	0								None
	C								Temperature-Pressure Compensation + Flow Accumulation
Power Supply and Distribution Output		E1							220VAC, 1 Channel 24VDC
		E0							220VAC, None
		C1							24VDC, 1 Channel 24VDC
		C0							24VDC, None

Note:

1. Isolated Universal Input, 185mm×154mm, 16GB USB Disk
2. Selecting PID function, flow accumulation, or temperature-pressure compensation allows for a maximum of 24 channels
3. PID + Transmitter Output + Relay Output ≤ 18 Channels



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