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Supmea

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Paperless Recorder

Datasheet

SUP-R9600

Add: No.600,No.21 Street, Hangzhou Economic&Technological Development Area, Zhejiang,China

This recorder is launched in full product range with outstanding specifications features high performance and high operating functionalong with high visibility Color LCD display. Universal input with high speed of sampling rate and high accuracy rating . Measured data is stored into memory and support up to 48MB.

FEATURES

Basic Functions
- Up to 18 channels of universal input
- UP to 4 Alarm Output Relays
- With 150mA Power distribution Output
- Communication type: RS485, Modbus RTU
- 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 .
- 3.5 inch TFT color LCD (320 x 240pixels)

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

SPECIFICATIONS

- Input specifications

  Number of Inputs: 1~18channels
  Measurement Interval: 1s,2s,3s.....1h
  Sampling rate： 1s
  Inputs: DCV (0-10mV, 0-100mV,0-5V,0-10V,1-5V)
  TC (S,R, B, K, N,E, J, T, F1,F2,WRe5-26,WRe3-25)
  RTD (Pt100, Cu50,Cu53,BA1,BA2)
  DCA (0-20mA,4-20mA)

* Does not include the accuracy of reference junction compensation

Input	Range	Measurement accuracy （%FS）	Display resolution
DCV	1-5 V	±0.1	1mv
DCA	(4~20)mA	±0.2	1mv
	(0~20)mV、(-20~20)mV、(0~100)mV	±0.2	1mv

Input(Thermocouple type)	Range （℃）	Measurement accuracy（℃）	Display resolution
B	600 ~ 1800	±2.4	0.1°C
E	-200 ~ 1000	±2.4	0.1°C
J	-200 ~ 1200	±2.4	0.1°C
K	-200 ~ -100	±3.3	0.1°C
	-100 ~ 1300	±2.0	0.1°C
S	-50 ~ 100	±3.7	0.1°C
	100 ~ 300	±2.0	0.1°C
	300 ~ 1600	±1.5	0.1°C
T	-200 ~ -100	±1.9	0.1°C
	-100 ~ 380	±1.6	0.1°C
R	-50 ~ 100	±3.7	0.1°C
	100 ~ 300	±2.0	0.1°C
	300 ~ 1600	±1.5	0.1°C
N	-200 ~ 1300	±3.0	0.1°C

Input	Range（℃）	Measurement accuracy （℃）	Display resolution
Cu50	-50 ~ 140	±1.0	0.1°C
Pt100	-200 ~ 800	±1.0	0.1°C

• Power supply
voltage range:176 to 264 VAC
Rated power supply frequency:
47-63 Hz (automatic switching)
Power consumption: 20 VA (max., for 264 VAC power supply)
• Normal Operating Conditions
Ambient temperature: 0 to 50 °C
Ambient humidity: 10% to 85%

Front view

- Thermovent
  This area used for well ventilated, avoid instrument internal temperature is too high
- 9600 system status display area
  This area is for system operation status
- Display area
  This area displays digital measurement value. channel names with together
- Navigation keys
  Those keys are used for switching display Modes. entering settings, move the cursors.
- USB interface
  This is a USB data transfer interface

Back View

- Power terminals
- IO modules

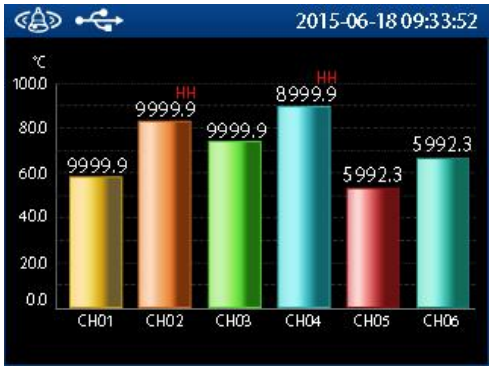
• Display

Display unit: 3.5 inch TFT color LCD (320 x 240pixels)
Background: black
Back light：LED
Trend display type: Vertical, horizontal, digital，graph selectable
Display renewal rate: 1 s

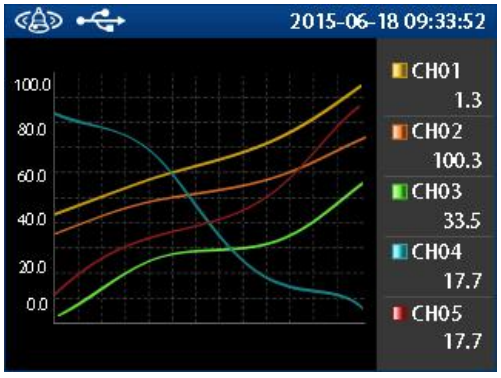
• Display function

User can change display object (trend, numeric, and bar graphs, etc.)

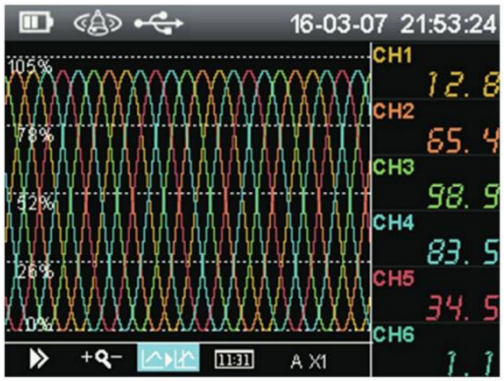
Data screen



Bar-graph screen



Real-time trend screen



historical trend screen

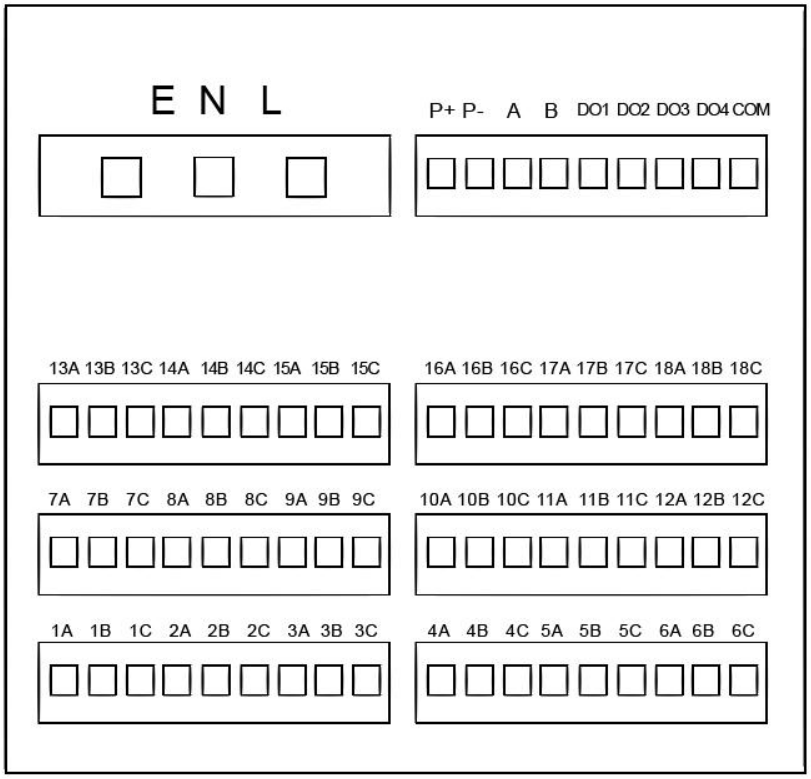
• Data Saving Function

Internal memory:
Medium: Flash memory
Capacity: 48MB

Event data file sample time
Measurement CH=10 channels computation CH=0 channels

Save interval(s)	1s
Total sample time	8.9 days

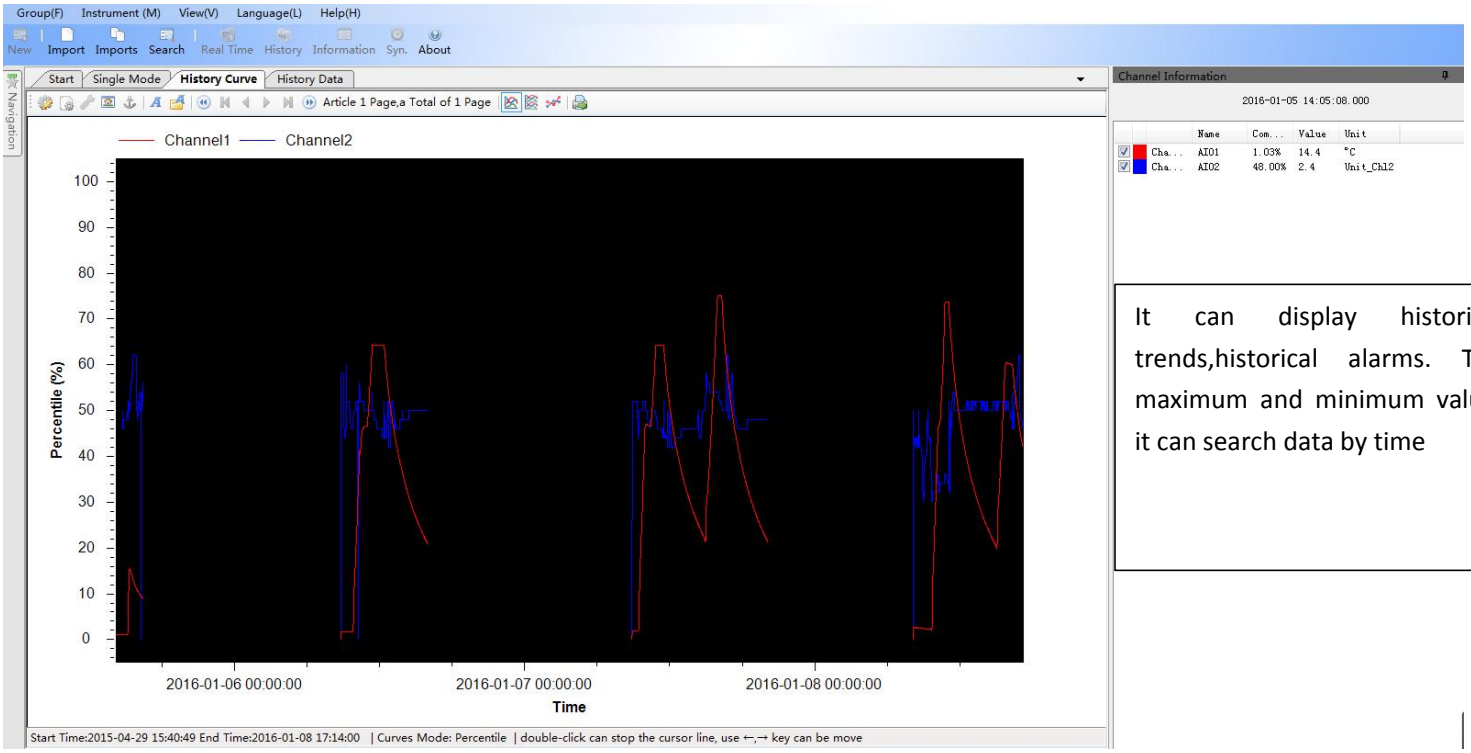
• Relay Function
• relay out channels: Up to four
• Relay types: High and low limits. Relays are normally open contacts. Contact capacity :2A /250VAC
(resistance load)
• Alarm Output Relays :2A/250v
• Power distribution function:150mA，24 VDC。



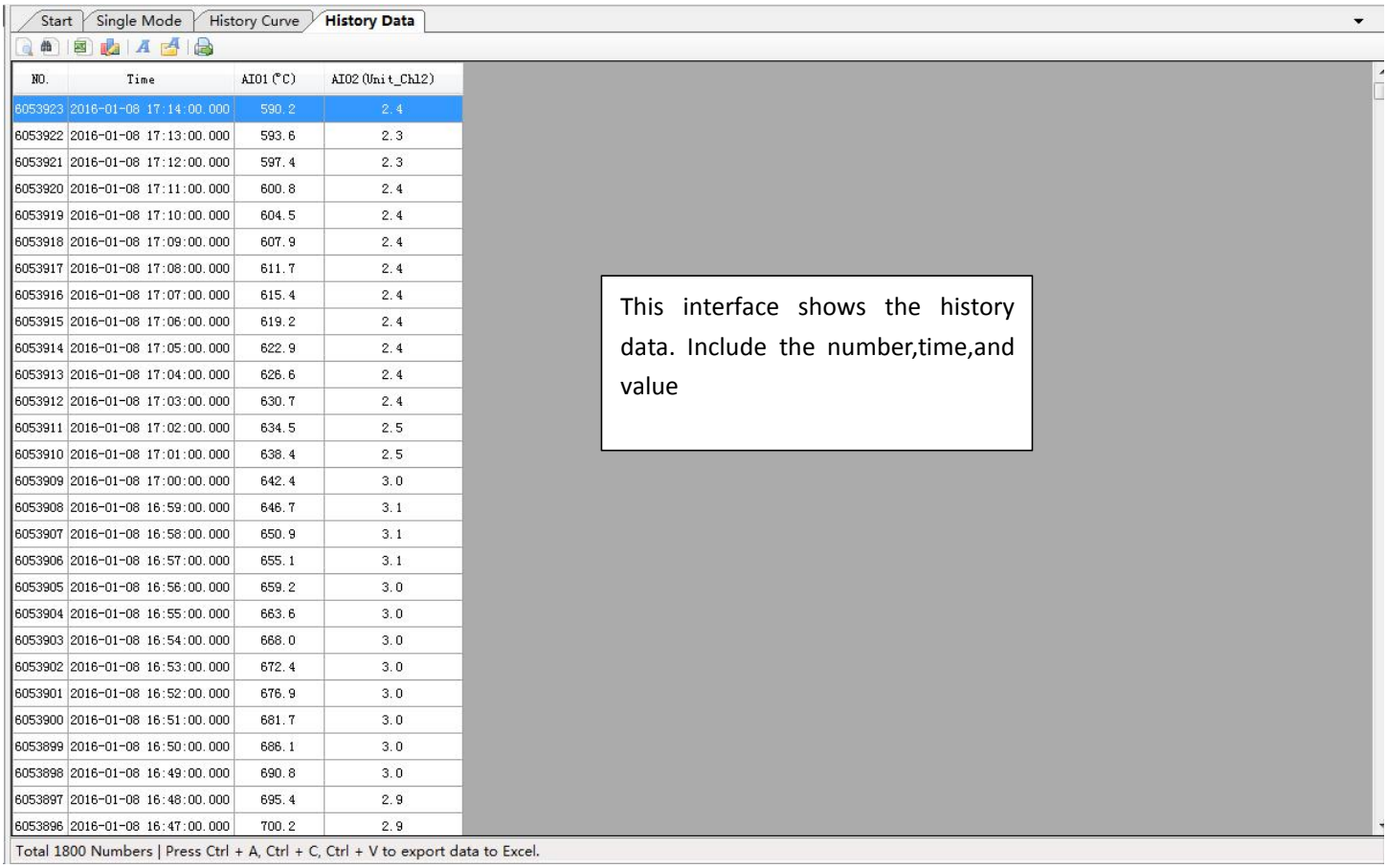
Terminal Arrangement
- Power terminals (E N L)
- Power distribution (P+ P-)
- Communication terminal RS485 (A B)
- Alarm relay output terminal No.1-4 (DO1 DO2 DO3 DO4 COM)

- Channel1 to channel18 Measuring input terminal

Application Software

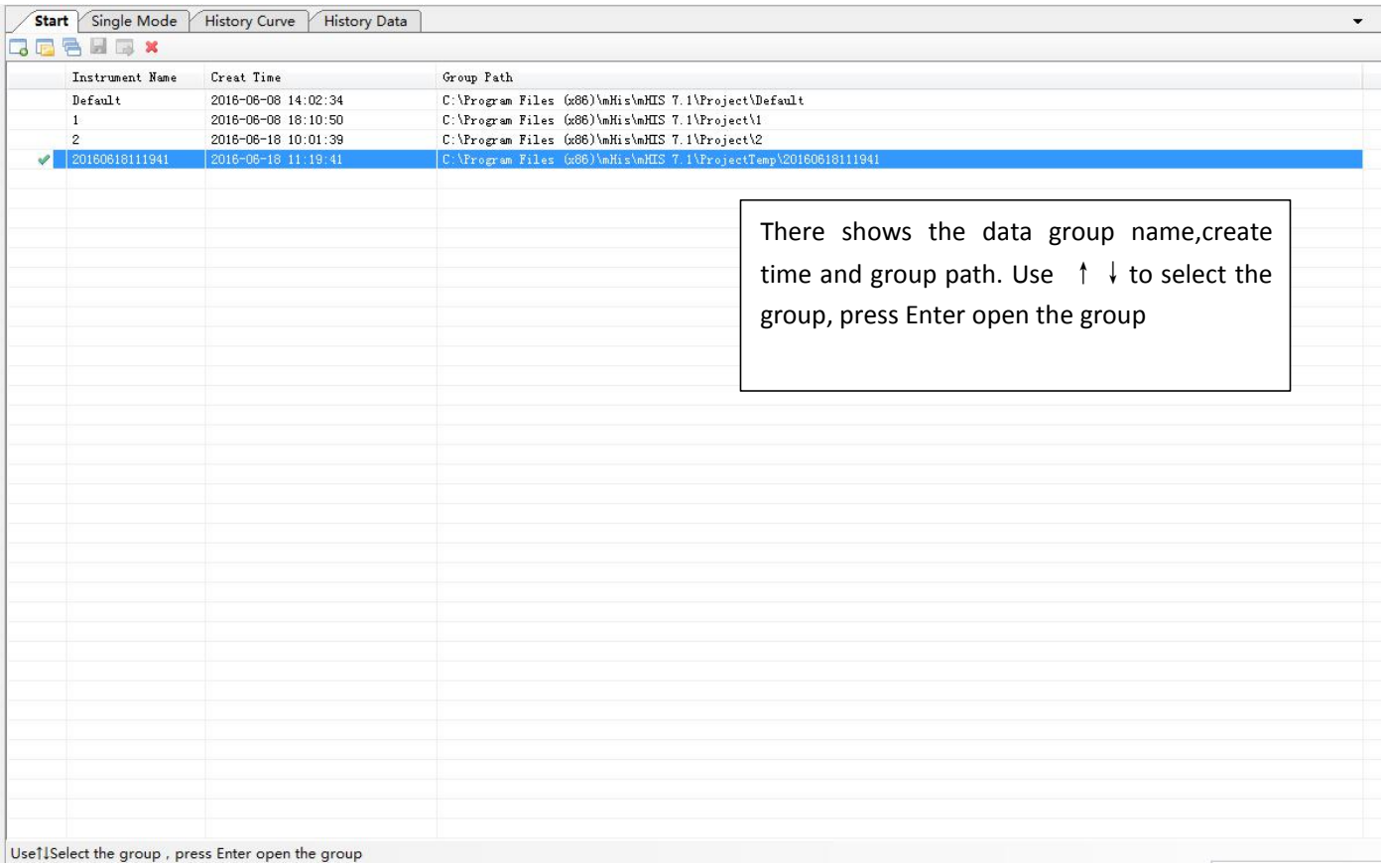


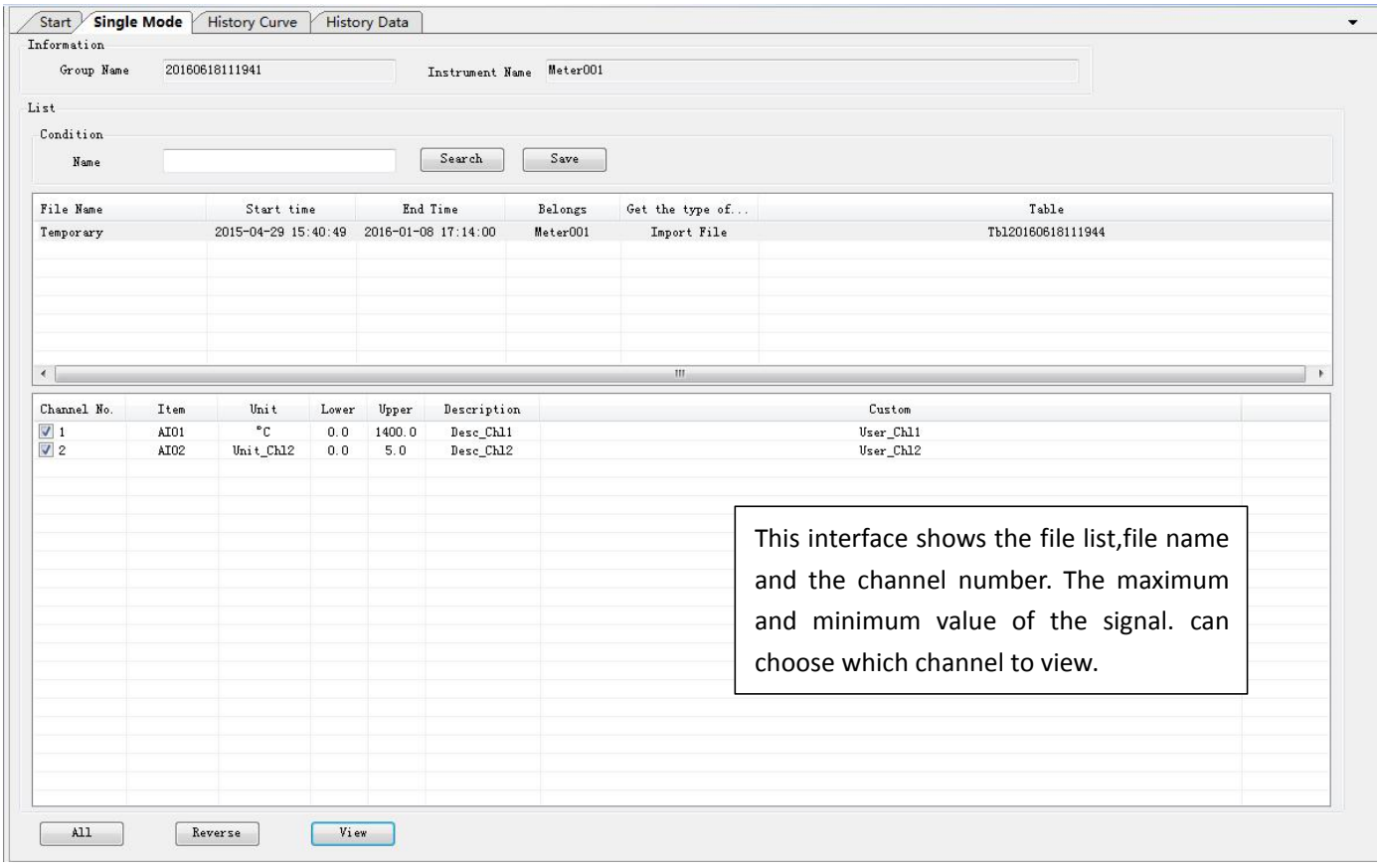
It can display historical trends,historical alarms. The maximum and minimum value. it can search data by time



NO.	Time	AI01 (°C)	AI02 (Unit_Ch12)
6053923	2016-01-08 17:14:00.000	590.2	2.4
6053922	2016-01-08 17:13:00.000	593.6	2.3
6053921	2016-01-08 17:12:00.000	597.4	2.3
6053920	2016-01-08 17:11:00.000	600.8	2.4
6053919	2016-01-08 17:10:00.000	604.5	2.4
6053918	2016-01-08 17:09:00.000	607.9	2.4
6053917	2016-01-08 17:08:00.000	611.7	2.4
6053916	2016-01-08 17:07:00.000	615.4	2.4
6053915	2016-01-08 17:06:00.000	619.2	2.4
6053914	2016-01-08 17:05:00.000	622.9	2.4
6053913	2016-01-08 17:04:00.000	626.6	2.4
6053912	2016-01-08 17:03:00.000	630.7	2.4
6053911	2016-01-08 17:02:00.000	634.5	2.5
6053910	2016-01-08 17:01:00.000	638.4	2.5
6053909	2016-01-08 17:00:00.000	642.4	3.0
6053908	2016-01-08 16:59:00.000	646.7	3.1
6053907	2016-01-08 16:58:00.000	650.9	3.1
6053906	2016-01-08 16:57:00.000	655.1	3.1
6053905	2016-01-08 16:56:00.000	659.2	3.0
6053904	2016-01-08 16:55:00.000	663.6	3.0
6053903	2016-01-08 16:54:00.000	668.0	3.0
6053902	2016-01-08 16:53:00.000	672.4	3.0
6053901	2016-01-08 16:52:00.000	676.9	3.0
6053900	2016-01-08 16:51:00.000	681.7	3.0
6053899	2016-01-08 16:50:00.000	686.1	3.0
6053898	2016-01-08 16:49:00.000	690.8	3.0
6053897	2016-01-08 16:48:00.000	695.4	2.9
6053896	2016-01-08 16:47:00.000	700.2	2.9

This interface shows the history data. Include the number,time,and value


Start
Single Mode
History Curve
History Data
Instrument Name
Creat Time
Group Path
Default
2016-06-08 14:02:34
C:\Program Files (x86)\mHis\mMIS 7.1\Project\Default
1
2016-06-08 18:10:50
C:\Program Files (x86)\mHis\mMIS 7.1\Project\1
2
2016-06-18 10:01:39
C:\Program Files (x86)\mHis\mMIS 7.1\Project\2
20160618111941
2016-06-18 11:19:41
C:\Program Files (x86)\mHis\mMIS 7.1\ProjectTemp\20160618111941
There shows the data group name,create time and group path. Use ↑ ↓ to select the group, press Enter open the group
Use↑↓Select the group , press Enter open the group


Start
Single Mode
History Curve
History Data
Information
Group Name
20160618111941
Instrument Name
Meter001
List
Condition
Name
Search
Save
File Name
Start time
End Time
Belongs
Get the type of...
Table
Temporary
2015-04-29 15:40:49
2016-01-08 17:14:00
Meter001
Import File
Tbl20160618111944
Channel No.
Item
Unit
Lower
Upper
Description
Custom
1
AI01
°C
0.0
1400.0
Desc_Chl1
User_Chl1
2
AI02
Unit_Chl2
0.0
5.0
Desc_Chl2
User_Chl2
This interface shows the file list,file name and the channel number. The maximum and minimum value of the signal. can choose which channel to view.
All
Reverse
View

• Installation

Operation environment will not only affect the normal use of the instrument , and also related to the maintenance and calibration work. Operation environment should obverse the following requirements:

Indoor installation

•Ambient temperature range:(0~50)℃

•Ambient humidity: 10% to 85% (non condensing)

•Ventilation requirements: well ventilated, avoid instrument internal temperature is too high

•Vibration interference: Less mechanical vibration

•Air composition: not easily produce condensate, non-corrosive gas or flammable gases

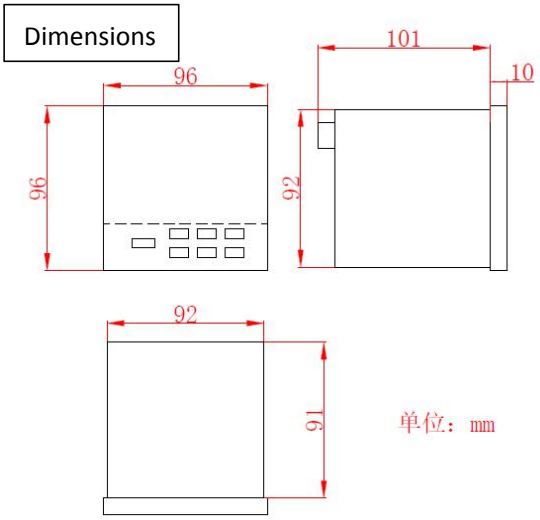
•Induction interference: no strong inductive interference, not easy to generate static electricity, magnetic field, or noise

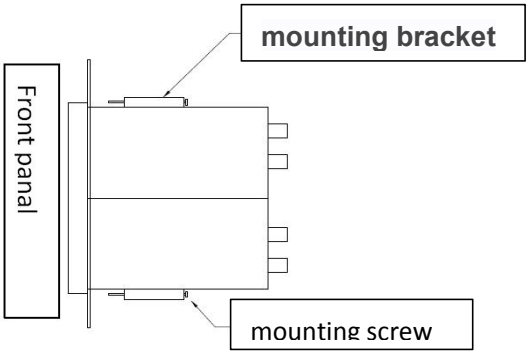
•Installation lactation: please keep Horizontal, not til

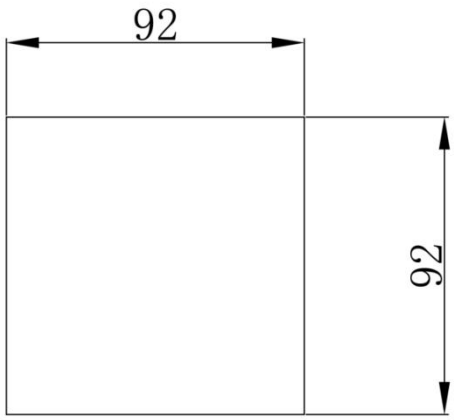
•Allowable Panel Thickness: 1.5 to 6.0mm

•Weight：0.37kg

Dimensions





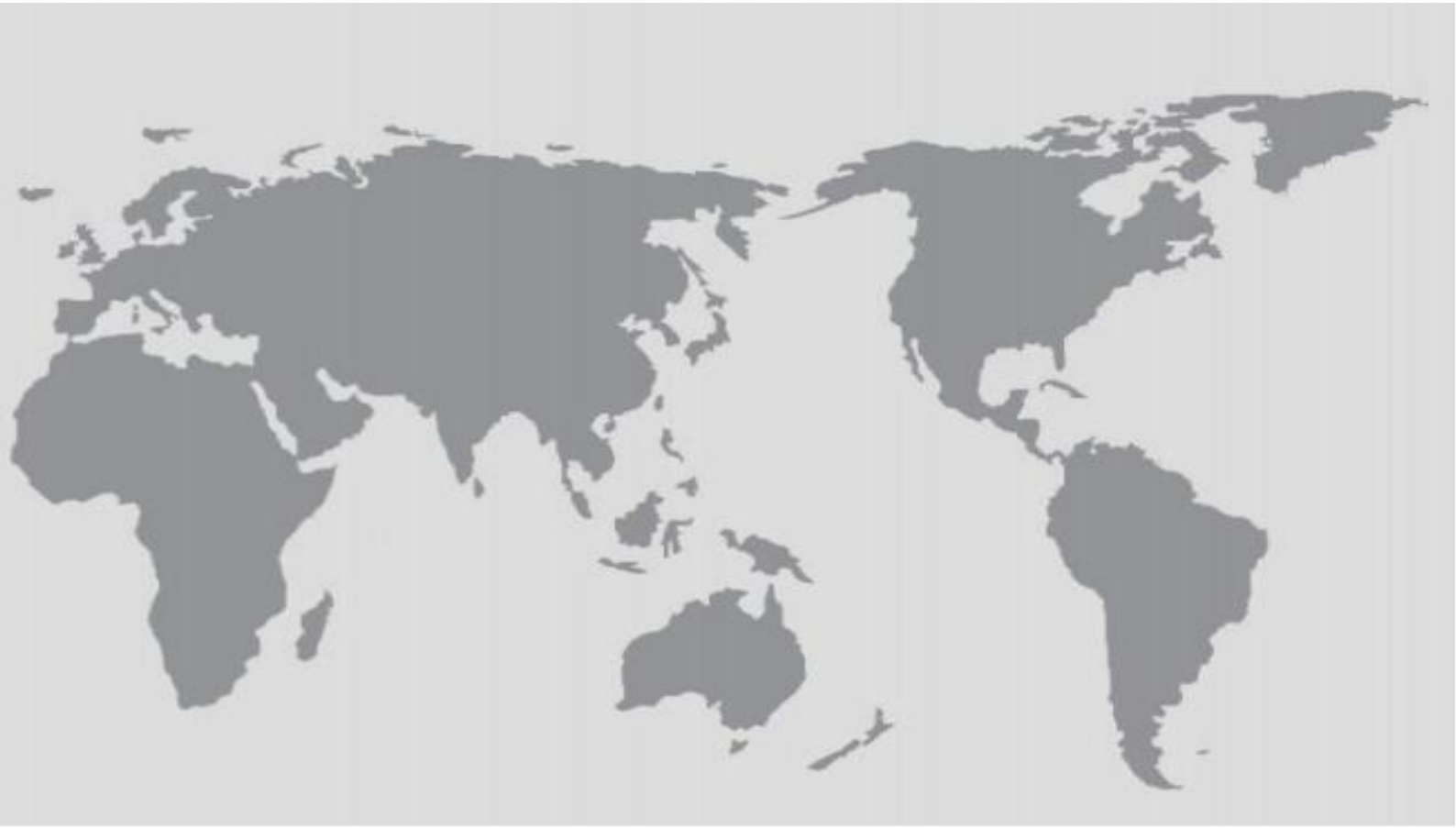


unit: mm

Ordering Code

Paperless recorder													
Model	Form												Specification
SUP-	R96												No.
		01											1 channel output
		02											2 channel output
		03											3 channel output
		....											.....
		18											18 channel output
Frequency Input				F0									None
				F1									1 frequency input
Relay output					00								None
					01								1 relay out
					02								2 relay out
					03								3 relay out
					04								4 relay out
Flow operation						O							None
						L							Flow operation
						F							Temperature compensation
Communication								T0					None
								T1					RS-232
								T2					RS-485
Analog output									A0				None
									A1				1 channel analog output
Power distribution										P0			None
										P1			1 channel power distribution
USB connection											0		None
											1		USB
Power supply												A	AC176-264V

Example:SUP-R9606-F0-00-O-T0-A1-P0-1-A



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