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1. Introduction

The recorder is mainly used to monitor the record of food, medicine, chemicals and other products in the storage and transportation process of temperature and humidity data, widely used in warehousing, logistics, cold chain of all links, such as refrigerated containers, refrigerated trucks, Cold storage, laboratory and so on.

1.1 Features

1. This recorder is equipped with a high-precision temperature and humidity sensor for accurate temperature and humidity measurement.

2. Built-in storage function, can record 260,000 pieces of temperature and humidity data, and can expand up to 2.08 million pieces of data.

3. Connect to the computer through the USB cable and use our company's supporting software to export the data stored in the device to the computer in EXCEL, TXT, PDF and other formats to facilitate subsequent report production and data analysis.

4. This recorder comes with a large LCD screen, which can display real-time temperature and humidity values, extreme temperature and humidity values, and the temperature units of Celsius and Fahrenheit can be freely selected.

5. This recorder uses a large-capacity rechargeable lithium battery, which can be used continuously for 1 year on a single charge.

6. Built-in buzzer, with over-limit alarm function, can automatically change the recording frequency when alarming, to ensure that the recorded data truly reflects environmental changes.

7. The function of timing start recording and timing stop recording can be set. When multiple recorders are used, ensure that the equipment starts recording at the same time and stops at the same time.

1.2 Dimensions



 $\rm COS\text{-}03\text{-}X$ USB temperature and humidity recorder user manual V1 .0



1.3 Model

Product number		Description	
COS-03	-0	Sensor built-in type	
-5		External type sensor; default probe length 0.6 m, up to 30 meters Please remarks when ordering	

1.4 Technical data

Equipment power supply	DC5V power supply or built-in battery power supply			
Recording capacity	260000			
		Probe built-in type	-20~+60°C	
Measuring range	tem perature	Probe external type	-40~+80°C	
	hu	Probe built-in type	0~95%RH	
	midity	Probe external type	0~100%RH	
Transmitter circuit operating temperature and humidity	-20°C~+60°C, 0%RH~95%RH			
	tem Normal accuracy: $\pm 0.2^{\circ}C$ (25°C); High precision: $\pm 0.1^{\circ}C$ (25°C)			
measurement accuracy	hu midity Drdinary accuracy: ±2%RH (60 25°C); High precision: ±1.5%RH (60%R		±2%RH (60%RH,); 5%RH (60%RH, 25℃)	
Recording interval	5 seconds to 18 hours can be set			
Measurement update	2~255 seconds can be set			





2. Quickly use the recorder to record data

1. Installing the USB recorder management system " SUSBLogger.exe "After the installation is complete, open the software.

2. The recorder connected to the computer via a USB cable and wait for the software interface click "Device Configuration" button after the driver is installed, if necessary, modify the set time, or the device parameters of the device, and then click the "write."

Device parameter settings			
Device Model	COS-03	Device time	
Device Name	TH监控仪	2017-07-26 09:54:04	Timming
MAC	30303000		
Record Interval Alarm Record Interval Delay on alarm	00:00:05 H:M:S 00:00:05 H:M:S 00:00:10 H:M:S	 ✓ Allow key to stop record ✓ Allow key to stop alarm ✓ Allow beep on key-down 	
Delay on start	0 🔆 Minute	Temperature upper limit	40.0
Shut screen time	00:00:05 H:M:S	Temperature lower limit	-25.0
Update time	UU:UU:UZ H:M:S	Humidity upper limit	100.0
limed start	Timed boot storage	• Humidity lower limit	0.0

3. Unplug the USB cable, take the device to the environment to be tested, and long

Key wait "**>**" Lights up to start recording.

4.Exit the USB recorder management system.

press

3. Get data recorder records

You can get recorded historical data from the record, this process will not clear the recorder itself, the stored data, if the recorder is still in the record state, the process of extracting data will not affect the working state of the recorder.

1. Open the USB recorder data management systems.

2, and a recorder connected to the computer via a USB cable, the software will automatically read all the data stored in the device.



3, select the "Report", select the starting and ending time, click on the "Refresh", the software can obtain the data recording device, click "Export" to select TXT, XLS, PDF format, select the save path and click OK, you can export the data.

4, the data can also be stored to a computer database, click on the "stored in the database."

File Device DataBase Help Pata Import Store To DataBase Clear Device Data Pata Import Store To DataBase Clear Device Data Pata Import Store To DataBase Clear Device Data	
Ata Import Store To DataBase Clear Device Data Query Device Configuration Device Status Export TXT Export XLS Export PDF	
	— Temperature°C — Humidity%
mm how	
mmmm 50	
40	
30	
20 2017.07.25 2017.07.25 2017.07.25 2017.07.25 2017.07.26 2017.07.26 2017.07.26 2017.07.26	
16:00 18:00 20:00 22:00 07-26 02:00 04:00 06:00 08:00	
20:00 26.Jul 04:00 08:00	

4. Functional description



COS-03-X USB temperature and humidity recorder user manual V1 .0



Serial number	Description		
1	1 The left side of the light to run the normal state of the second flash; the light for the alarm light, temperature and humidity over the case of second fl and the sound consistent,		
2	Real-time temperature and humidity display		
3	Remaining power display		
4	Whether it is in the parameter modification mode		
5	Whether it is online		
6	The current logging status		
7	Significant number wheel has been stored, the system time (the amount of data stored as LOG)		
8	Temperature or humidity alarm		

Recorder display interface: the main interface, the lower temperature and humidity display interface, temperature and humidity upper limit display interface, the minimum temperature and humidity display interface, temperature and humidity maximum display interface. Can be in the main interface by pressing the up and down keys to view.





Main interface



Lower limit of temperature and humidity alarm



Upper limit of temperature and humidity alarm





The minimum temperature and humidity of the stored data



Maximum temperature and humidity of stored data

If the recorder 20 seconds (may be provided) is not operated, the display automatically into a closed state. You can also set the screen. The recorder screen is long.

If the recorder is in the off display state, press any key briefly to enter the status display interface.

button Each time you press it briefly, the recorder display interface will be switched

in the order shown above.

5. Instructions

5.1 Key Description

Shandong Renke Control Technology Co., Ltd.,			9	www.renkeer.com
Button	Features	Description		Key operation mode



-		1	, ,
	Clear key	• Exit operation when parameter setting is performed	Short press
	return key	• Return to the main menu interface settings or view	Short press
	Paduaa tha kay	•When the normator is	Short prass: Decreased in
	Reduce the key	• when the parameter is	desimal places
		mounied, the data is reduced	Long prose: To roduce the
			number of bits
	After the page	• When the menu button before	Short press
		the page view	
	Turn off the	• main interface Press audible	Long press
	sound and light	alarm off (stop button allowed)	
	alarm		
	Increase the key	• When modifying data parame	Short press:increase in decimal
(\bigtriangleup)		ter increasing button	places
			Long press: increase by bit
	Before the page	Short press	
		the page view	
	Open the sound	• main interface Press audible	
	and light alarm	alarm is turned on (key allows	
		to stop)	
	Save key	• the enter key after the	Long press
(OK)		completion of the modification	
		parameters	
	Enter	• enter the menu	Short press
	Start / Pause	• Boot Record; to pause the	Long press
	key record	recording	

5.2 Boot Record

USB management system of the recorder Recorder parameters, the recorder does not start in



symbol lights up to start the record." 🕨 "The symbol flashes to indicate that it is in the start-up delay state.

Note: USB recorder data management system of the recorder parameter configuration, prior history data will be cleared, please read and save the historical data recorder before setting parameters.

5.3 Stop Record



COS-03-X USB temperature and humidity recorder user manual V1.0
 (1) storage space automatically stops recording after the expiration. In the status display interface " The symbol is lit and it is stopped.

(2) setting allows the recording stop button, press

interface " The symbol is lit and it is stopped.

Note: After the recorder stops recording, the key can not start the recorder again. Only the recorder data can be cleared before you can start the recording again by pressing the key.

5.4 Function Display Item Description

Short press on the main interface



code 000, a short press

Key to enter the menu settings interface

When entering a password, press the up and down keys to increase or decrease with the rightmost digit, and press the up and down keys to increase the number of digits.

Show items	Features	Scope and description	default
17-07-19 ∎ ⊡	time	year month day	
	Clear the stored data	0~1 Set to 1 to clear the data stored	0



Key, in the status display

Key, enter the password, the default PIN



		password	0 ~ 999	000
	-			
000				
	ററ റെ	Temperature	100 + 300	0
	00.0	calibration value		
	-			
LPB				
		Humidity	100 + 100	0
		calibration value		
L6R				
(0)		Temperature	- 40 ~ + 300	100
Ť	10.0	value		
		Humidity	0~100	100
		upper limit alarm	0~100	100
Ť		value		
(D)	ວບ.ບ			

JDRK COS-	03-X USB temperature a	nd humidity recorder use	er manual V1 .0
∞ -`⊣⊡.⊡ °⊂ ±	Temperature lower limit alarm value	- 40 ~ + 300	-40
± 00.0%	Humidity lower limit alarm value	0~100	0
15:30:26 ∎ ⊡ 	time	Minutes and seconds	

6. Data management software for use

After the installation of the software will be completed in the desktop production



-

"Icon, double-click to open the software.

6.1 Export Data

Open Logger USB data management system, and the recorder connected to the computer via a USB cable. Click "Import Data" to import the data stored in the recorder into the data management system.





USB Logger Data Mar	nagement System								
ile Device DataBa	ase Help								
ta Import Store To D ery Curve Report	ataBase Clear De	vice Data Que	ery Device	Configuration	Device Status	Export TXT	Export XLS	Export PDF	
							-	-60	— Temperature°C — Humidity%
	m	-					h	Ame	
mont								50	
								40	
								30	
								20	
017-07-25 2017-07-25 16:00 18:00	2017-07-25 20:00	2017-07-25 22:00	2017 07-26	2017-07-26 02:00	2017-07-26 04:00	2017-07-26 06:00	2017-07-26 08:00	2017-07-26 10:00	
d	20:00		26. Jul		04:80		08:00	~~ <u>I</u>	
				III				•	

Click on the "Reports", select the start and end time to export the data, click on the "Refresh" and then select the export format (TXT / XLS / PDF), you can export the data saved to the specified path (in PDF for example), suggesting that export success The

ISB Logger Data Management System			
e Device DataBase Help			
Import Store To DataBase Clear D	Vevice Data Query Device Configuration Device	Status Export TXT Export XLS	Export PDF
y Lurve neport begin time 2017-05	'-25 15:40:38 🔍 🗸 end time 2	2017-07-26 10:29:48	refresh
device model COS-03	device name T	H监控仪	delay before start 0
temperature upper limit 37.0	temperature lower limit -	25.0	humidity upper limit 100.0
max temperature 29.9	min temperature 2	5.9	average temperature 27.4
max humidity 68.9	min humidity 4	8.3	average humidity 58.0
Temparature Humidity	COS-03TH 监控仪2017/07/25 15:40-20	17/07/26 10:29	
	i na kana kana kana kana kana kana kana		
			num
Relativistic and an end of the second s			and the second



日 另存为									×
	藏夹					• • • •	搜索收藏夹		P
组织 ▼								•	0
 ☆ 收藏夹 ▲ 2345下载 ▲ 下载 ■ 桌面 		2345下载 快捷方式 409 字节 桌面 快捷方式 408 字节		10	下载 快捷方式 897 字节				
 □ 库 砚频 ■ 图片 □ 文档 〕 音乐 		490							
文件名(<u>N</u>): 保存类型(①:	record *.txt								•
🙆 隐藏文件夹						[保存(<u>S</u>)	取消	



6.2 Saving Data

After importing the data, click "Store to Database"

USB Logger	Data Management	System							
File Device	DataBase He	p							
			9	1	a the	1	X	12	
Data Import S	tore To DataBase	Clear Device Data	Query	Device Configuration	Device Status	Export TXT	Export XLS	Export PDF	
Query Curve	Report								

To the database file named after the convenience of the query, click "OK" to save the data is successful.



device		COS-O3
total		13551
record name	COS-03_TH	监控仪 2017-07-
	08	Coppel

6.3 query data

For data has been saved to the database can be queried via the USB recorder management system, click on the toolbar "Query"

🐻 USB Logger Data Management System							
File Device DataBase Help							
📮 🗐 🍝	Q	×	-	1	X	1	
Data Import Store To DataBase Clear Device Data	Query	Device Configuration	Device Status	Export TXT	Export XLS	Export PDF	
Query Curve Report		9					

Can choose the query, click on the query;

By record name: to save the name of the database query

Press inquiries into date: Time to save the database query

USB Logger Data Management System File Device DataBase Help	Q X	
Data Import Store To DataBase Clear Device Data Query Curve Report Query type By record name V Furry match	Query Device Configuration De	vice Status Export TXT Export XLS Export PDF Record details Record name Device Device name Create time
◎ By save date Begin time 2017-07-26 09:52:42 End time 2017-07-26 09:52:42 Query		Operation Show data Show curve Rename Delete Temperature Humidity RecordTime *
8	• •	



Double-click the query to the results, you can "view data", "view curve", "rename", "delete records" "export" operation.

e Device DataBase Help	Query Device Configuration	evice Statu	s Export TX	T Export XL	S Export PDI	F	
y Curve Report	0	P J	1.1.11.				
sy record name	COS-03 TH监技仪_2017-07-26	Record n Device Device n Create	name COS-O name time	03_TH监控仪_2 2017-07-26	017-07-26 COS-03 TK监控仪 16:18:12		
iy save date Regin time 2017-07-20 00:52:42		Operatio	on T	Show data	Show curve	Rename	Delet
		Т	emperature	Humid:	ity	RecordTime	
2011-01-20-23.52.42		•	7-4	52, 3		2017-07-25 1	5 51 4
		21	7.4	52.3		2017-07-25 1	5:51:4
Query		21	7.4	52.4		2017-07-25 1	5:51:5
		21	7.4	52.3		2017-07-25 1	5:51:5
		21	7.4	52.4		2017-07-25 1	5:52:0
		21	7.4	52.5		2017-07-25 1	5:52:0
		2	7.3	52.6		2017-07-25 1	5:52:1
		2	7.3	52.6		2017-07-25 1	5:52:1
		2	1.3	52.5		2017-07-25 1	5:52:2
		21	7.3	52.5		2017-07-25 1	5:52:2
		21	7.3	52.6		2017-07-25 1	5:52:3
	· ·		1.0	F0.0		0017 07 05 1	F. FO. 0

6.4 Setting Recorder parameters

The devices connected to the computer via a USB cable, click on the toolbar "Device Configuration"

USB Logger Data Management S	/stem						
File Device DataBase Help							
	🛋 🛛 Q	2/	2	1	Px-	1	
Data Import Store To DataBase C	lear Device Data Query	Device Configuration	Device Status	Export TXT	Export XLS	Export PDF	
Query Curve Report		-					
	8						



After editing the device parameters, click "Write Device" to write the parameters to the recorder.

Device Model		COS-03	Device time	1
Device Name		TH监控仪	2017-07-26 16:22:28	Timming
MAC		30303000		
Record Interval	00:00:05 H:M:S	Temperature unit	Allow key to stop record	
Alarm Record Interval	00:00:05 H:M:S	Cersius Fahrenheit	✓ Allow heep on key-down	
Delay on alarm	00:00:10 H:M:S			
Delay on start	0 🔺 Minute		-	77.0
Shut screen time	00:00:05 H:M:S		lemperature upper limit	31.0
Update time	00:00:02 H:M:S		Temperature Lower Limit	-25.0
Timed start			Humidity upper limit	100.0
Timed stop		T limed boot storage	Humidity lower limit	0.0
		-		

Device Model: The factory default can not be modified

Device Name: Custom, you can give your own logger named

MAC: Factory default can not be modified

Device time: synchronization clock time recorder

Record interval: interval storing data logger (minimum 5S)

Alarm Record interval: after recording the temperature and humidity recorder set overrun interval

Delay on Alarm : This value is set when the 10S and the upper temperature limit alarm on, if the temperature exceeds the upper limit and the time duration over device

will exceed 10S super rising alarm device that, when the temperature exceeds the upper limit of the duration that the device temperature is less than 10S There is no upper limit; this parameter is also the lower temperature alarm, humidity alarm, humidity lower limit alarm effective

Delay on Start: Set records start time of 0 seconds by default, can not be modified

Display time: off-time logger is provided on screen display is set to 0 if no off-screen

Measurement Update: setting recorder data acquisition interval

Timed start / **Timed stop :** checking the timing of starting after storage, may be provided in the recorder data storage specified period of time

Allow key to stop record: When checked, then the key can be recorded on a recorder stop

Allow key to stop alarm: After checking, when the recorder overrun sound and light alarm, sound and light alarm can be turned off button

Allow beep on key-down: closed or open key sound

Temperature upper limit: Set the upper temperature alarm value



Temperature lowerlimit: Set the temperature lower limit alarm value

Humidity upper limit: Set the upper limit of humidity alarm value

Humidity lower limit: Set the humidity lower limit alarm value

6.5 View current device status

In the toolbar, select "Device Status" to see the specific status of the currently connected device

		0
Device Status	×	
MAC	30303000	
Software Version	1.00	
Hardware Version	1.00	
DeviceTime	2017-07-26 16:43:00	
Device orking state	In record	
Last online time	2017-07-26 10:29:36	
Record start time	2017-07-25 15:40:38	
Estimated stopping time	2017-08-09 16:47:15	
Actual stopping time	-	
Memory chip status	normal	
Current temperature	26.3	
Current humidity	66.6	
Temperature unit	Celsius	

MAC : MAC address of the device current
Software version : software version number
Hardware version: version of the device
Device Time: The current time of the device
Current working state: record / Stopped
Last online time: the last online time
Record start time: time storage device starts recording data
Estimated stopping time: according to the current recording interval, the absence of

artificial stop recording, the device may stop normal recording time

Actual Stopping time: stop record time artificial



Memory chip Status: Normal / Abnormal Current Temperature: Equipment temperature Current humidity: Equipment humidity Temperature unit: Temperature unit

6.6 Clear device data

In the toolbar, select "Clear Device Data" and click "OK" to clear the device data.

USB Logger Data Management System				
File Device DataBase Help	a Query Device Configuration De	vice Status	T Export XLS Expo	rt PDF
Query type V Fuzzy match	Query result	Record details Record name COS- Device Device name Create time	03_TH监控仪_2017-07-20 COS-03 TH监控仪 2017-07-26_16:18:12	6 3 2
 By save date Begin time 2017-07-20 09:52:42 v End time 2017-07-26 23:52:42 v Query 	nfo Please pay attention to saving cleaning?	data. Do you want to 是①	continue	Rename Delete RecordTime 2017-07-25 15 51 43 2017-07-25 15 51 43 2017-07-25 15 51 48 2017-07-25 15 51 51 53 2017-07-25 15 51 53 2017-07-25 15 51 58 2017-07-25 15 52 02
		27.4 27.3	52.5 52.6	2017-07-25 15:52:08 2017-07-25 15:52:13 2017-07-25 15:52:18
	*	27.3	52.5 52.5	2017-07-25 15:52:23 2017-07-25 15:52:28
	4 • • •	27.3	52.6 52.6	2017-07-25 15:52:33 2017-07-25 15:52:38

7. Installation Notes





8. Contact information

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