Inquiry Onsite Temperature & Humidity with SMS!

High-Low Threshold alarm with SMS text Message alert!

Interval Report Onsite temperature & humidity to Your Mobile Phone by SMS!

GSM/SMS/GPRS/3G/4G
Temperature & Humidity Data Logger
Temperature & Humidity Monitoring Alarm

KING PIGEON

S264/S265/S266
User Manual

Ver 2.1

Date Issued: 2018-04-09

King Pigeon Hi-Tech. Co.,

Ltd.

www.GPRS-M2M.com

This handbook has been designed as a guide to the installation and operation of S264/265/266 GSM SMS GPRS 3G 4G Temperature&Humidity Monitoring Alarm.

Statements contained in the handbook are general guidelines only and in no way are designed to supersede the instructions contained with other products.

We recommend that the advice of a registered electrician be sought before any Installation work commences.

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【UPGRADE HISTORY】

DATE	VERSION	DESCRIPTION
2017.9.15	V1.1	1. Add Modbus TCP Protocol 2. Add Definition Protocol 3. Support New Cloud Network App
2017.11.8	V2.0	1. Update Physical Layout and Installation Diagram 2. Update the Software Configuration 3. Update the SMS Command
2018.04.09	V2.1	1. Modbus TCP changed to Modbus RTU Protocol. 2. Add Continue Dialing Function Instructions and Related Commands which is used to Modbus Protocol. 3. Update the Software Configuration

【Gentle Reminder】

Please scan the QR code below or search in Apple store to download the APP for easy setting.

Normal APP   Cloud Monitor APP

【Model List】

Model	GSM/GPRS/3G/4G	Relay Output	Sensor Type	Record	Measuring Range
S264	Optional	2	Temperature& Humidity Model: AM230x	200000	Temp:-40-80°C , accuracy is±0.5°C; Humidity:0-99 RH%, accuracy is± 3%;
S265	Optional	2			
S266	Optional	2	DS18B20 Temperature Probe		Temp:−55°C to +125°C (−67°F to +257°F), accuracy is±0.5°C.
Notice	1. Default version is GSM； 2. For 3G WCDMA and 4G LTE version, please tell our sales where you would like to use them.				

GSM/SMS/GPRS/3G/4G Temperature&Humidity Data Logger

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1. Brief introduction

The GSM SMS GPRS 3G 4G Temperature &Humidity Monitoring Alarm embedded GSM/GPRS/3G/4G module and high performance MCU to provide an all in one instrument for data logging, Remote data acquisition, alarm and control. It special for real-time remotely monitoring onsite temperature, humidity, power status and automatically switch on/off equipments through wireless cellular network.

It provides 4/8 temperature &humidity probe inputs or 8 high precision temperature probe inputs. When the temperature, humidity exceed high threshold or low threshold value, or external power goes off or on, will send SMS alert to 10 preset mobile phone immediately or upload event data to remote server by GPRS/3G/4G network.

It provides daily report, schedule upload, event upload by the GPRS/3G/4G to monitoring center or by SMS to the user mobile phone directly.

The Data Logger with large memory that can save 200000 events. It provides 2 Relay outputs for automatically switch ON/OFF devices when Temperature & Humidity exceed high/low value and remote switch ON/OFF Device by SMS or GPRS/3G/4G networks.

It has been designed as a cost effective, low power, easy use, and reliable data logger. It can be used in the worldwide through the wireless cellular network, operation in anywhere, no distance limitation.

Typically applications:

Server room, Warehouse, Drug store, Medicine center, Seafood storage, Aquarium, Supermarket, hospital, Hotel; Weather Stations remote control and data logging, Transformer stations, BTS room, agriculture, Supervision and monitoring alarm systems, etc.

2.Safety Directions

Safe Startup
Do not use the unit when using GSM/3G/4G equipment is prohibited or might bring disturbance or danger.

Interference
All wireless equipment might interfere network signals of the unit and influence its performance.
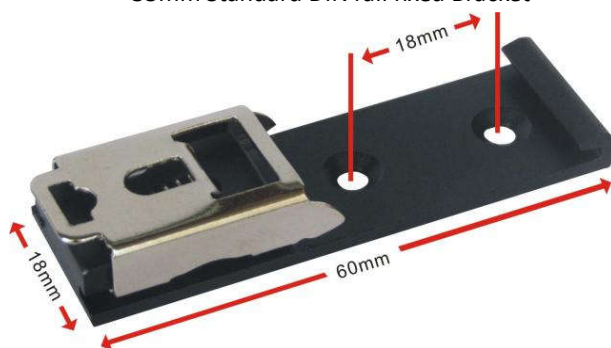
GSM/SMS/GPRS/3G/4G Temperature&Humidity Data Logger

3. Standard Packing List

Data Logger X 1; Antenna X 1; AC/DC adaptor (12V1.5A) X1; User Manual X 1.

Note: The package does not include any SIM card.

Optional: AM230x   Temperature &Humidity Sensor, 1m, 5m, 20m;

DS18B20   Temperature Probe, 1m, 5m, 10m, 20m;

35mm Standard DIN rail fixed Bracket

35mm DIN Rail Fixed Bracket

4. Mainly Features

➢ Can be operated from anywhere, no distance limitation;

➢ Quad band 850/900/1800/1900Mhz GSM GPRS Module inside;

➢ 3G UMTS/HSDPA/4G Modules are optional.;

➢ 32 bit MCU, reliable performance with in-built watchdog;

➢ Support temperature & humidity monitoring remotely in real-time;

➢ Support 2 relay outputs,7A@125VAC,5A@125VAC, 20A@14VDC;

➢ Exceed High/Low threshold value will Alert via SMS/Call/GPRS/3G/4G networks;

➢ Supports 1 DNS or IP address as server, supports Modbus TCP, TCP/IP protocol over GPRS/3G/4G network;

➢ Automatically resend the data while communication failure, GPRS failure will alert by SMS text;

➢ Supports remotely restart the device, and configure it by SMS commands remotely;

➢ Up to 10 user's phone number to receive alarm and daily report SMS/Call;

➢ Provides daily report, schedule upload, event upload by the GPRS/3G/4G to monitoring center or by SMS to the user mobile phone directly;

➢ In-built rechargeable battery, power lost/recover alarm, low maintenance, 24×7 operation;

➢ Internal 16MB memory, logs more than 200000 records;

➢ Support Android/IOS APP, easily & friendly for use/configuration.

➢ Support configure parameters, load profiles, export historical data and upgrade the firmware via PC;

➢ Wall mount or 35mm standard DIN rail Design, convenient installation,

➢ Metallic cover, small size, exterior dimension is L70*W88*H30mm.

5. Specifications

Item	Reference Scope

DC Power Supply	Standard Adapter: DC 12V/1A Range 9~36VDC
Power Consumption	Standby:12V/70mA; WorkingMax.:12V/300mA
GSM/3G Frequency	2G: 850/900/1800/1900Mhz 3G version Optional: (UMTS/HSDPA) W:900/2100@UMTS 900/1800@GSM; C:850/1900@UMTS 850/900/1800/1900@GSM; T:850/2100@UMTS 850/900/1800/1900@GSM; 4G LTE
SIM Interface	Supporting 3V SIM Card
External Antenna	SMA Antenna interface, 50 Ohm
Serial Interfaces	1 USB Port
Temp.&Hum Inputs	4 / 8 channel (Optional)
Relay Outputs	2 Relay Outputs 7A@125VAC 5A@125VAC 20A@14VDC
Memory Capacity	16MB for 200000 record.
Backup Battery	3.7V 900mAH
Exterior Dimension	70*88*30mm
Installation	35mm standard DIN rail(Optional) Wall mount (Default)
Net Weight	500g

6. Physical Layout and Installation Diagram

6.1 Control Unit physical layout
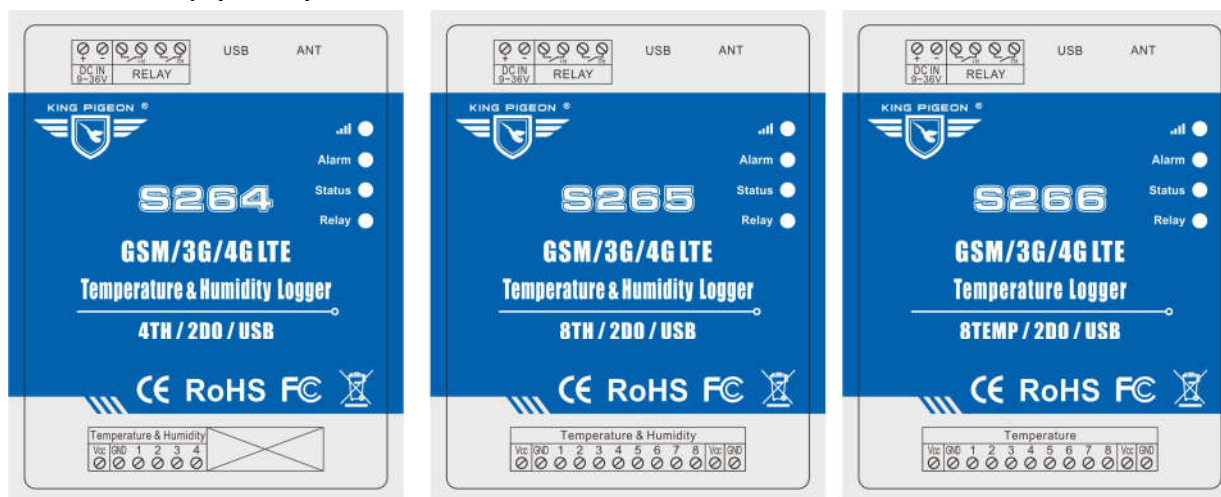
LED Indicator Instruction	
	Cellular indicator, registering cellular Network flicks quickly, registered successful will 2seconds flick once.
	Alarm indicator, while alarm occurrence, will turn on.
	Armed indicator, in Armed mode, will turn on, in disarm mode, will turn off.
	Relay indicator, any one relay close, will turn on.

6.2 Interface Instructions for installation

At the backside of the panel, please use the tool to remove the screw, and you can see the below:

SIMCard Holder

Power Switch

RESET Button

Upgrade Button
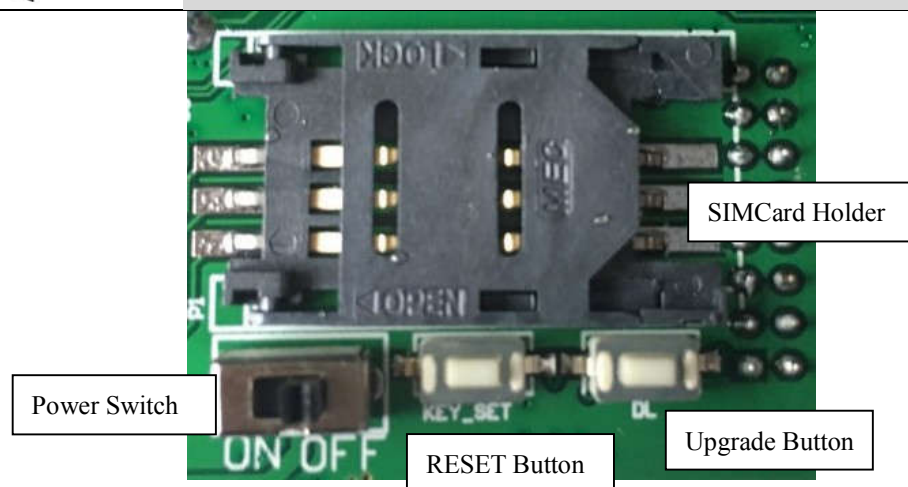
1) **Insert SIMCard**

Slide the SIM card holder in the direction of "OPEN" (etched on the SIM card holder), and then flip it open. Then Insert the SIM card with its gold contacts facing down and its cut-off corner facing out the SIM card slot. See below photo. Close the SIM card holder and then slide it in the opposite direction of "OPEN" to lock it. See above photo.
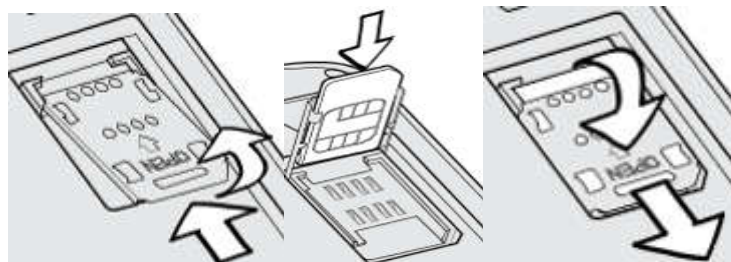
2) **Connect External DC Power and Temperature & Humidity Sensor**

See below interface, please contact the correct wires.

Interface Instruction		
DC IN 9~36V	**+**	DC9~36V positive input, 1.5A, for power on the Unit;
	–	DC9~36V negative input, 1.5A, for power on the Unit;
RELAY	**R1**	Relay 1 output;
	R2	Relay 2 output;
USB	USB interface, used it to communicate with the computer.	
ANT	GSM/3G/4G antenna.	
Temperature & Humidity	**VCC**	3.3VDC Power Source output for sensors. Connect to AM230x Sensor VCC wire or Connect to DS18B20 sensor VCC wire, (Red wire).
	GND	GND , Connect to AM230x or DS18B20 GND wire, (black wire).
	1~8	Data port, connect to the 1st ~8th AM230x or DS18B20 Data wire, (Yellow/Green wire).

AM2301 PIN Difinition

VCC
Data
GND
NC (Reserved)

DS18B20
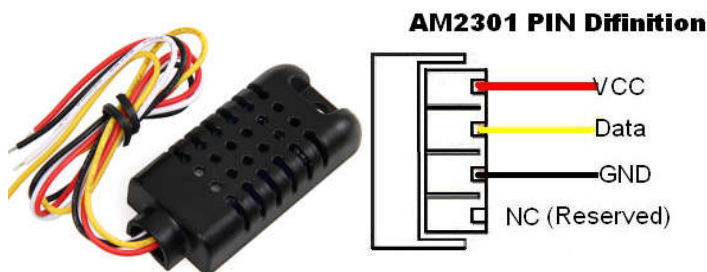
3) **Connect electrical device to Relay outputs.**

The unit provides 2 relay outputs; it can be used for control different device according to requirements. The connection diagram is below:
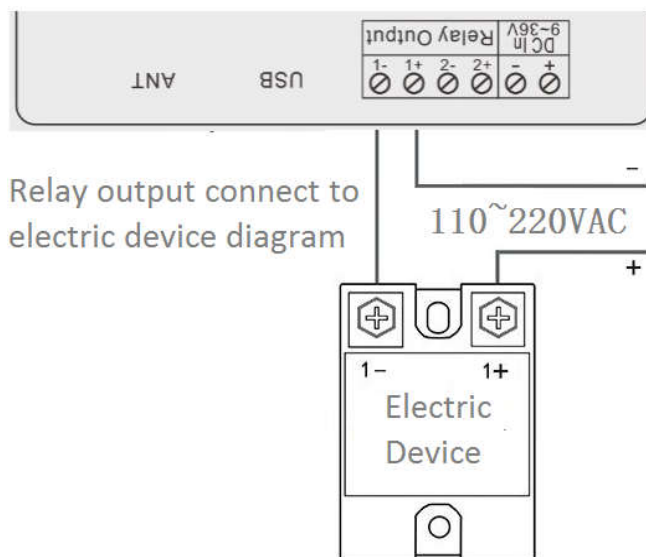
7. Initialize/Reset the GSM unit

The Unit can be reset to factory default once mistake programmed. Please follow below steps to initialize it. After initialized, the parameters will set as factory default.

1) Switch off the Unit

2) Press and hold the RESET button;

3) Switch the Power Switch to ON side to powered on the Unit, holding 5 seconds, then loose the RESET Button.

4) Restart the unit then recovery to factory default settings, and will enter to work mode.

8. Settings&Operation

The GSM SMS GPRS 3G 4G Temperature &Humidity Monitoring Alarm is user-friendly design. The user can setup it or export historic data by the PC Configuration through USB cable, and upgrade firmware by USB port.

Tips!

1) Please insert the SIM Card firstly, and install the GSM/3G/4G Antenna, please power on to check the LEDs status according to above mentioned LED Definitions, keep switch on it during the programming.

2) The PC Configuration in the CD, please click it to run it. Also can download from www.GPRS-M2M.com under S264/5/6 page directly.

Below is the steps to setup the parameters by PC Configuration, please follow it step by step.

Start to Configure:

Step1: **Install the Configurator**

The Configurator in the CD or download from www.GPRS-M2M.com, then installs it on the computer.

Step2: **Connection**

Please insert the SIM Card, and install the GSM/3G/4G Antenna.

Step3: **Connect the RTU to the PC by USB Cable. And connect the external DC Power to DC Power Ports, Power on, and switch on the device, see below:**

Step4: **Install USB Drvier**

Install the USB Driver to the computer from the CD firstly. When successful, it can be found out at the device manager of the XP or Windows 7 or Win8/Win10, please see the below photo. Also, the driver for different OS can be downloaded from Silicon Laboratories, Inc. http://www.silabs.com , the model is CP210x.
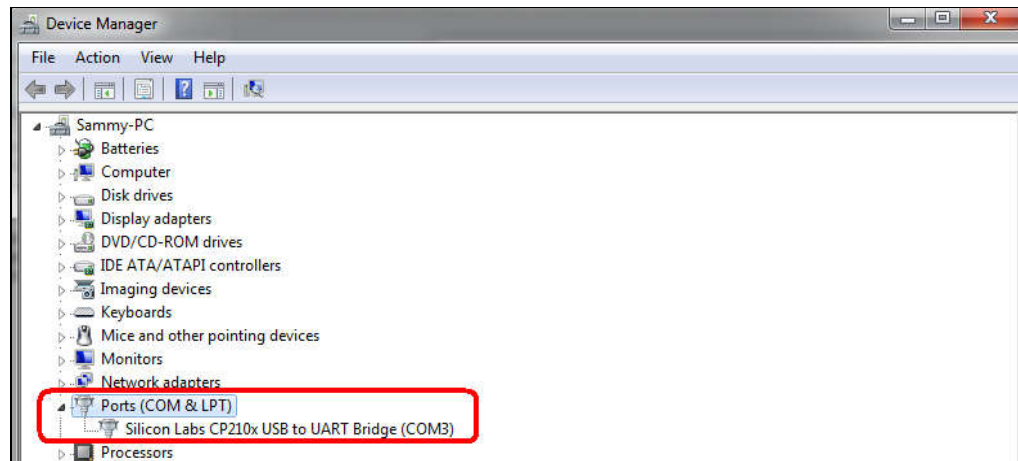
Step5: **Run the Configurator** (Compatible with Windows XP/7/8/10)

Tips: *In some computer, it required download net framework 4.0 while installation, then please click "Yes" to go to Microsoft website to download this service pack.*
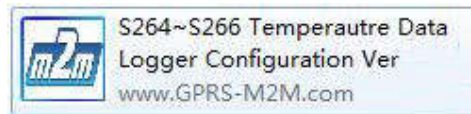
Step6: **Choose the correct "COM port" in device manager above, enter the password(default is 1234),click the "Login" to connect and start to program**
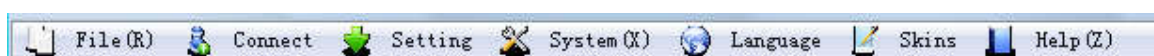
Details please check the picture as below:

Tips: *If not connect successfully, pls check if USB connect well, or COM port and password correct or not.*

Drop-down menu interpretation:

【File】：

　　【Load Profile】：Load the saved profile to the PC configurator, to quickly configure bulk device with similar parameters.

　　【Export Profile】：Save the present configuration parameters as a profile for next device configuring or backup the parameter settings.

　　【Log Out】：Exit the configuration.

【Connect】：

　　【Close the Port】：Disconnect the device and configuration software

　　【Open the Port】：Reconnect the device

【Setting】：

　　【Read Setting】：Read previous parameter setting of the device.

　　【Write Setting】：Write the present page parameters from PC configurator to device.

　　【DO Current status】：Read current status of relay output.

　　【TH Current Value】：Read current value of temperature and humidity.

【System】：

　　【Reset】：Reset the device to default settings.

　　【Reboot】：Restart the device and open the configuration software.

【Language】：

　　【Chinese】：Set the configurator language to Chinese.

　　【English】：Set the configurator language to English.

【Skins】：Choose color for configuration software (Reserved).

【Help】：

　　【About】：Configuration software relative information.

⚙ Basic Setting

Reminder: *Please click the "Read setting" for previous parameter before starting to set.*

Arm automatically when power on: Tick it stands for once the data logger powered up, the data logger will enter into Arm Mode automatically.

Tips:

Arm: *Under this mode, any alarm occurrence will send SMS and dial the authorized numbers immediately. And execute the programmed I/O outputs.*

Disarmed: *Under this mode, alarm occurrence will not send SMS & dial the authorized numbers.*

Add timestamp to alarm SMS: Tick it stands for while alarm occurrence, the Alarm SMS will include the data logger's current time information at the SMS Content.

Press * or # to stop Dial: Not Tick, it will not continue to dial if someone answer; Tick it, Alarm dialing will dial continue if not press the button, until press the * or # button.（4G version don't support this function,don't tick it）

Device ID: (0~65535) non-necessary. This is mainly for monitoring center to identify the data logger; If communicate via Modbus protocol, device ID only can be 1~255.

Device description: This is the description of the data logger, e.g.: installation address, usage instructions and so on;(Max: 60 Characters)

Daily work report time: Data Logger send current status SMS reports to authorized numbers automatically everyday.

How long delay to ensure alert after power off: Power failure alert (0~999 min), default 0, means SMS alert immediately once power off; 999 means not alert.

Interval time to save historical record: (0~65535 s), how many seconds interval to save record, default 0, means not save.

Periodically SMS report interval time: (0~65535 min), how many minutes interval to SMS report current status, default 0, means not report.

Auto Arm after Disarmed: Fill the timeout to enter into Armed Mode automatically after disarmed operation. (0~9999 min), default 0 minute, means it will delay 30 seconds to auto Arm after Disarmed.

Password Setting: Change a new password. (4 digits, default is 1234, Arabic numerals only)

Device Time:

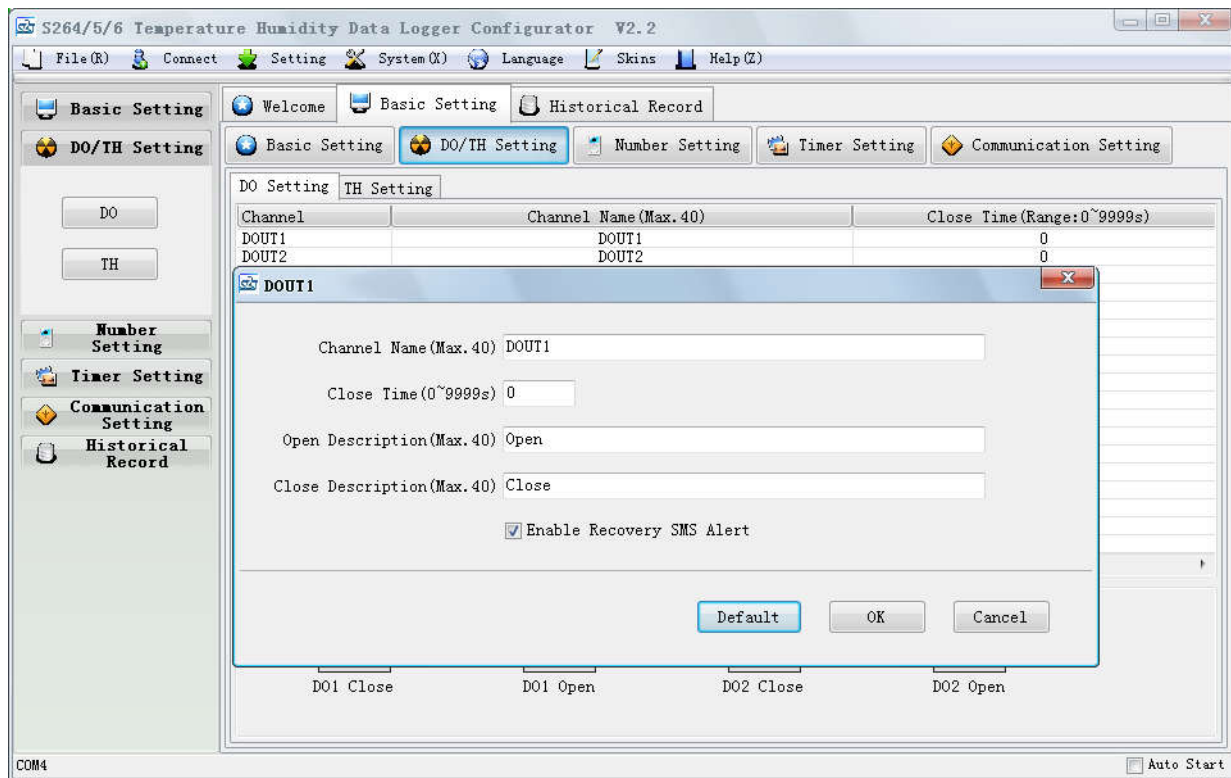Write**:** Click it to save the time into the device after adjust the time.

Read**:** Read device current time.

PC Time**:** Read PC current time.

Reminder:

Please remember that click "Setting" -"Write Setting" button to save it after parameter be written.

⚙ DO Setting

Tips: *For example ,double click or right click "DOUT1/2" to set the parameter, below is similar.*

Channel Name: To setup the channel name, default "Relay + Serial number ",max 40 digits.
Close Time: Independent control is not set here, it is only for timer and alarm-link close time.
 (0~9999s) ,default 0 ,means always close.
Open Description: SMS content when relay open, max 40 digits, default open.
Close Description: SMS content when relay close, max 40 digits, default close.
Enable Recovery SMS Alert: Tick it to enable the recovery SMS function after relay finish working.
Current Status: Relay current status: Open or Close.
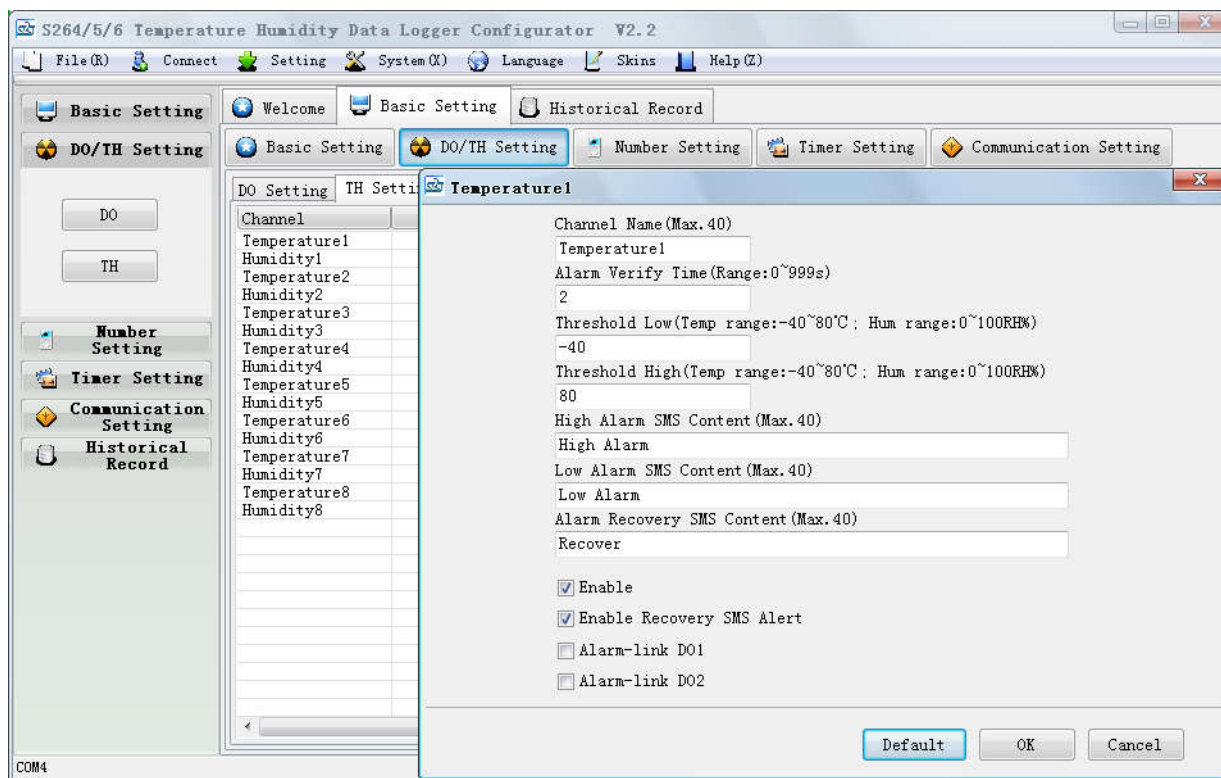
Reminder:
Please remember that click "Setting" -"Write Setting" button to save it after parameter be written.
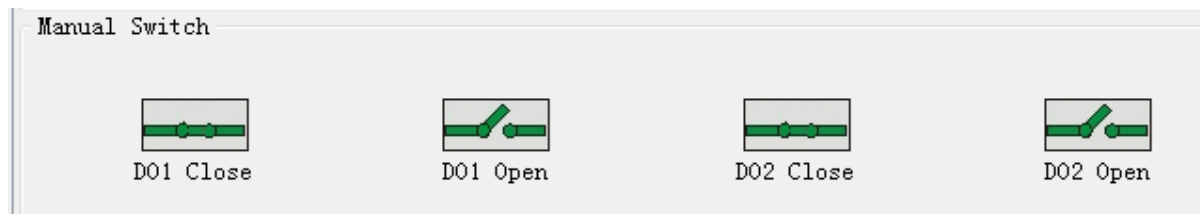
Manual Switch: Close or Open the relay immediately, used for on-site testing.

⚙ TH Setting

Channel Name: Default "Temperature or Humidity + Serial number ",max 40 digits.

Alarm Verify Time: Tick it Stands for when the temperature or humidity input exceed the threshold value and last time more than this value, will be treated as a true alarm, if less than this value, then will not alarm to avoid fault alarm. (0~999s), default 2 seconds.

Threshold High: The high value(reached) need to alarm; Example: set 50Celsius degree to alert.

Threshold Low: The low value(reached) need to alarm; Example: set -30Celsius degree to alert.

High Alarm SMS Content: To setup the SMS Content when high alarm, max 40 digits.

Low Alarm SMS Content: To setup the SMS Content when low alarm, max 40 digits.

Alarm Recovery SMS Content: Setup SMS Content when value back to normal from alarm, max 40 digits.

Enable: Tick it to enable this Channel.

Enable Recovery SMS Alert: Tick it to enable the Alarm Recovery SMS notification function.

Alarm-link DO1: Tick it to setup when this channel triggered, the alarm link the output relay 1 should close, the relay close time according to **Close Time (Range 0~9999S)**.Otherwise, the relay output will not close.

Alarm-link DO2: Tick it to setup when this channel triggered, the alarm link the output relay 2 should close, the relay close time according to **Close Time (Range 0~9999S)**.Otherwise, the relay output will not close.

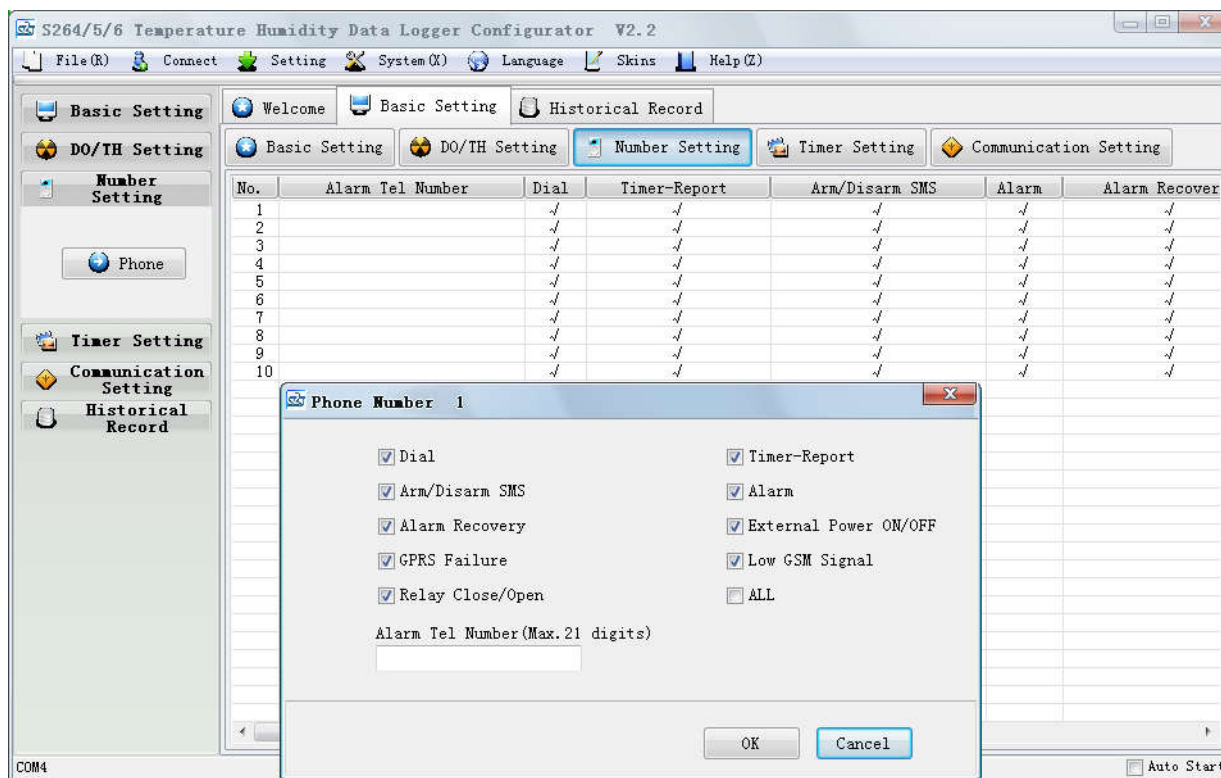**Current Value:** To show the current value of the sensors, used for testing.

Reminder:

Please remember that click "Setting" -"Write Setting" button to save it after parameter be written.

⚙ Number Setting

Tips: *Max 10 authorize users no., also double click or right click to enter and set parameters.*

Alarm Tel Number: Set the alarm receiver numbers, please includes the country code, e.g. in China is 0086, input 008613570810254, if cannot received the SMS or dial, then try to set as +8613570810254, but cannot be 8613570810254. Also, some GSM/3G Operators not required input country code, so please remove country code, e.g. in China is 0086, and China Mobile not required country code, so can set as 13570810254.

Dial: Tick it stands for enable while alarm, Dial to the authorized numbers. When someone answer, then calling stop; If not, continue to call next number, total calling one round.

Timer-Report: Tick it stands for enable to SMS report to this authorized numbers.

Arm/Disarm SMS: Tick it stands for enable the SMS notification when Arm/Disarm.

Alarm: Tick it stands for enable while alarm, send SMS to the authorized numbers.

Alarm Recovery: Tick it stands for enable the SMS notification when the alarm recovery to normal value.

External Power ON/OFF: Tick it stands for enable the SMS notification when external power on/off.

GPRS Failure: Tick it stands for enable the SMS notification when the GPRS connection failure.

Low GSM Signal: Tick it stands for enable the SMS notification when the GSM signal is weakness.(Well signal value:14~31).

Relay Close/Open: Tick it stands for enable the SMS notification when the relay close/open.

All: Tick it stands for enable all of options in this line, from "Dial ~ Relay Close/Open".
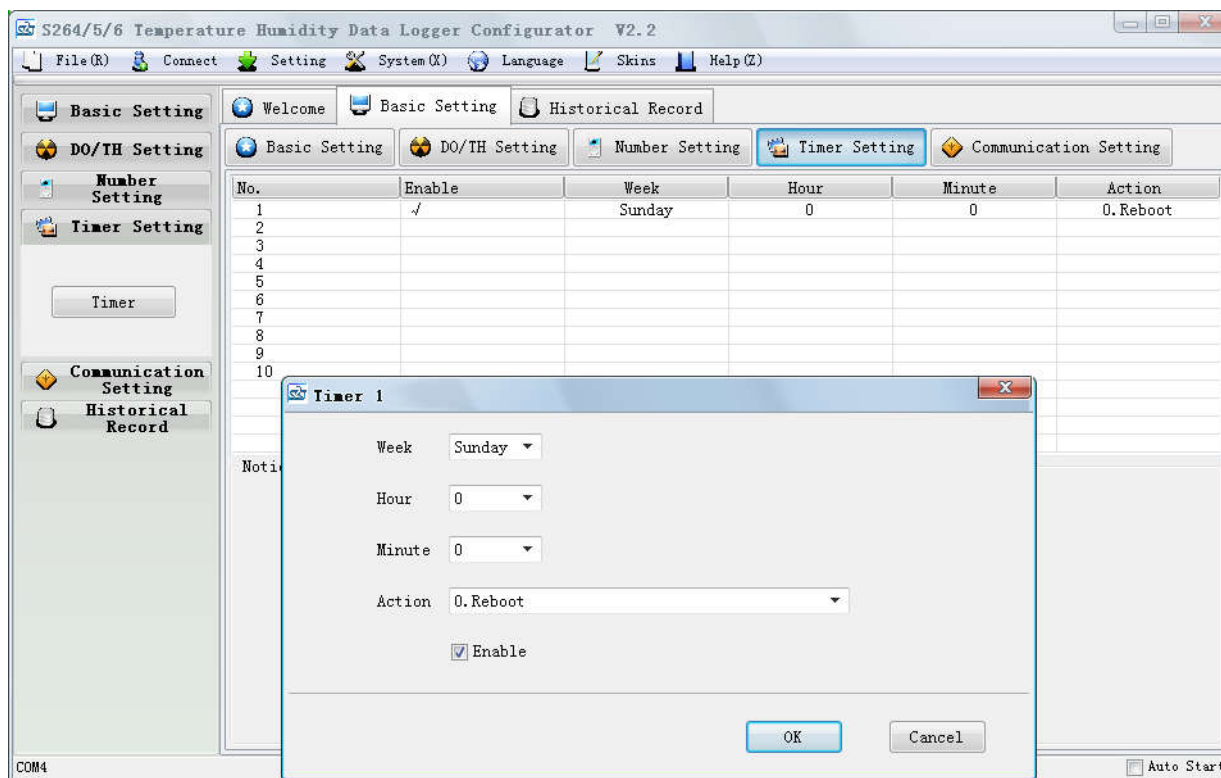
Reminder:
Please remember that click "Setting" -"Write Setting" button to save it after parameter be written.

Timer Setting

This page is for setup daily timer, it is useful for scheduling when to execute what action automatically.

Total can program 10 scheduling events. Tick Enabled stands for enable this timer event:

Week + Hour + Minute: Stands for what day and at what time does the Data Logger should execute the action.

Action: Stands for what action does the Data Logger should to execute at the specified time.

E.g.: as above mentioned,

Every Sunday 01:20, Data Logger automatically Reboot.

Every Monday 03:10, Data Logger upload data by GPRS to server.

Every Tuesday 04:19, Data Logger send SMS reports to authorized numbers automatically.

Everyday 19:23, Data Logger will close the relay 1 automatically.(Relay close time is according to the **Close Time (Range 0~9999S)**)

Tips:

Action: *If the action is for DOUT (relay),then the relay working time is depend on the DOUT parameter.*

Reminder:

Please remember that click "Setting" -"Write Setting" button to save it after parameter be written.

⚙GPRS Setting

This Page is for setup the GPRS online parameters, GPRS Transport data protocol and Server information. Only when you have Server or need to use GPRS to transmit data then need to setup these parameters. The GPRS Protocol details please refer to <S264/5/6 GSM 3G 4G Temperature & Humidity Data Logger GPRS/3G Protocol Instruction>.

Communication Type: Stands for setup the Communication type.(0.Disable/ 1.Modbus RTU Protocol / 2.Definition Protocol)

GPRS Protocol: Stands for the GPRS transmission using TCP or UDP protocol; Default TCP.

Access Point Name: GPRS Access Point Name, provided by local GSM/3G Operator.

GPRS User Name: GPRS User Name, provided by local GSM/3G Operator.

GPRS Password: GPRS Password, provided by local GSM/3G Operator.

Heartbeat Content: For Modbus protocol, Default ACK, Max. 20 characters.

Heartbeat Interval: For Modbus protocol, (0~9999 s), Default 60, 0 means not upload.

Upload Data Interval Time: Stands for setup the interval time to upload the data to the server when definition protocol chosen. Range:0~65535 Min; Default:5.

Server Domain/IP; Server Port: When using SMS command to set the communication type to Modbus protocol , Will change automatically the domain "modbus.dtuip.com" , port "6651"; When set as a definition protocol, the domain name is: "www.rtu-m2m.com", port "8001".

Login Message: For Modbus protocol, ASCII or hexadecimal optional, Max. 50 characters

Reminder:

Please remember that click "Setting" -"Write Setting" button to save it after parameter be written.

⚙ Historical Record

This page is for manage and read out the historical record from the Data Logger, and can save as CS format for other purpose usage.

For historical record, the Data Logger total can save 200000 records, but just can read 20000 records in the configurator. Once it full, will automatically remove the earlier 100 records for new records.

The records will including all the values, such as time, T/H value, alarm, so on.

Read: Set the quantity which need to read, max 20000 historical records.

Single: Indicate one historical record to read, can choose it from 1~20000 records.

Clear: Clear the screen, clear the current display records.

Delete All: Delete all historical records in device, if 200000 records, delete them should need around one hour.

 :Choose the time to search the historical records.

Search: After setting the time period, click the button to search historical records in this time.

Export CSV: Export current display historical records to CSV format file.

Import CSV: Import the historical record file to current page.

9.SMS commands & APP (Recommend to use the APP)

Notice:

1. *The default Password is* 1234.
2. *The unit cannot support PIN Code Protected SIMCard.*
3. *You can program the GSM unit with SMS commands using your phone.*
4. *Remember that commands must be* CAPITAL LETTERS. *It is PWD not pwd, CAP not Cap etc. Don't add spaces or any other character.*
5. *The* **PWD** *in the commands is means the password, when you use it, please in stand of it by the digital number.*
6. *In some GSM operators they use different SMS parameter; the units can't return the SMS confirmation in some gsm operators, but it can performance the functions correctly. Also, you can try to add the country code before the number, see the below settings:*

> *For example:*
>
> E.g.: the country code is 0086, or +86.
>
> The user cell phone number is 13600000000 and has been assigned as a SMS Alert number, the simcard number in the panel is 13512345678.
>
> When you setup the number as the authorized number, please setup as 008613600000000 or +86136000000000. Not 13600000000.

7. *If the password is correct but the command is incorrect, the S264/5/6 will return:* SMS Format Error, Please check Caps Lock in Command! *So please check the Command, or add the country code before the telephone number or check the input is in ENGLISH INPUT METHOD and CAPS LOCK. If password incorrect then will not any response SMS.*
8. *Once the GSM Unit received the SMS Command, will return SMS to confirmation, if no SMS return, please check your command or resend again.*
9. *The SMS commands that you will certainly use in the GSM units are the following:*

SMS Commands For Program and Operation the S264/5/6

1) Setup the S264/5/6 SIMCard Number(Max 21 digits)

This number is used for automatically adjust the time from GSM Operator.

Command	Return SMS	Example
PWD+ TEL+ SIMCard Number+ #	Set success!	1234TEL008613570810254#

2) External DC Status

Event	Return SMS Content
External DC goes off	External DC Power Goes OFF
External DC Power Goes ON	External DC Power Goes ON

3) External DC Power Lost Delay Time to Alarm

SMS Command		Return SMS Content
Setup	PWD+ ACxxx (**Notice:** xxx stands for delay time, range 000~999 minutes. =000,	External DC Power Lost Delay time to Alarm: xxx minutes

	stands for alarm immediately, =999 stands for DC power lost will not alarm. Default is 000)	
Inquiry	PWD+ AC	

4) Modify Password(4digits, Default is: 1234)

Command	Return SMS	Example
PWD+ P+ new password	[new password],This is the New Password, please remember it carefully.	1234P4321 stands for change password from 1234 to 4321

5) Armed or Disarmed (After power on it is in Disarmed Mode)

Command		Return SMS	Example
Armed	PWD+ AA	Armed	Armed stands for while alarm occurrence, should send SMS or dial to alert users,
Disarmed	PWD+ BB	Disarmed	Disarmed stands for while alarm occurrence, will not send SMS or dial to alert users.)

6) Setup Device ID Number

SMS Command		Return SMS Content
Setup	PWD+ IDxxxxx Note: xxxxx range 0 ~ 65535, default: 1, if the device uses Modbus protocol, the effective range of ID is 1 ~ 255	ID:XXXXX
Inquiry	PWD+ IDE	

7) Setup S264/5/6 system Time

If you GSM Operator cannot provide the time source then must setup the system time after power on. Otherwise, the S264/5/6 will run it at mistake time. If you GSM Operator can provide time source, then no need to setup this time, but must setup the SIM Card number as 1) required.)
For yy/mm/dd/hh/mm, each have two digits in the command.

Command		Return SMS	Example
Setup	PWD+ DyymmddThhmm	xx(Y)XX(M)XX(D)xx(H)X(M)	1234D170510T1258
Inquiry	PWD+ D	xx(Y)XX(M)XX(D)xx(H)X(M)	1234D

8) Inquiry Current Status SMS command

SMS Command	Return SMS Content
PWD+ EE	Time Device ID: Armed/Disarmed GSM Signal Value: External DC Power Goes OFF/ON Temperature 1 Channel Name:Current Value,Normal/High Alarm/Low Alarm Humidity 1 Channel Name: Current Value, Normal/High Alarm/Low Alarm

	......
	DO1 Channel Name: Close/Open
	DO2 Channel Name: Close/Open
	Model:
	Version:
	Device Description:

9) Setup 10 User Number, max 21 digits. (Return 1~5 or 6~10 separately while setting.)

SMS Command		Return SMS Content
Setup	PWD+ A+ series number+ T+ tel number Notice: Series number = 01~10	Tel1: Tel2: Tel3: Tel4: Tel5:
Inquiry	PWD+ A	Return all numbers
Delete	PWD+ A+ series number	Return 1~5 or 6~10 numbers.

10) Setup Daily Report Time

SMS Command		Return SMS Content
Setup	PWD+ DRT+ xx+ yy (**Notice:** xx =00~23, stands for hour. yy=00~59,stands for minutes.)	Daily SMS Report at: xx:xx
Inquiry	PWD+ DRT	
Delete	PWD+ DRTDEL (means not report, default)	

11) Setup Periodically SMS Report Interval Time

SMS Command		Return SMS Content
Setup	PWD+ DTxx (**Notice:** xx=0~65535minutes, 0=stands for disable, default is 0)	Periodically SMS Report interval time is: xx minutes
Inquiry	PWD+ DT	

12) SMS Control Relay Output

SMS Command		Return SMS Content
Set DO Name	PWD+ DO+ channel number+ T+ DO Name	DOx: xxxx
Inquiry DO Name	PWD+ DO+ channel number<nn>	DOx: xxxx
Set Close Description	PWD+ DOC+ channel number+ T+ Description	DOCx: Close(Default)
Inquiry Close Description	PWD+ DOCT+ channel number	DOCx: Close(Default)
Set Open Description	PWD+ DOO+ channel number+ T+ Description	DOOx: Open(Default)
Inquiry Open Description	PWD+ DOOT+ channel number	DOOx: Open(Default)
Switch ON(Close)	PWD+ DOC+ channel number<nn>	DOx: ON
Switch OFF(Open)	PWD+ DOO+ channel number<nn>	DOx: OFF
Inquiry all DO Current Status	PWD+ DOE	DO1: ON/OFF DO2: ON/OFF
Set Pulse Output time	PWD+ DOP+ channel number<nn>+ T+ xxxx	DOx Pulse Output Time: xxxxS

	(**Notice:** xxxx=0~9999seconds, default=0 stands for always close)	
Inquiry pulse output time	PWD+ DOT	DO1 Pulse Output Time: xxxxS DO2 Pulse Output Time: xxxxS
Control the Pulse Output	PWD+ DOP+ channel number<nn>	

13) Setup the Temperature & Humidity Alarm Parameter

Command		Return SMS	Example
Setup Temperature & Humidity Channel Name	PWD+ AIN+ Series Number+ T+ Channel Name (Series number: two digits, S264 is 01~08, S265/S266 is 01~16; Name max 40 digits)	AIN1:Temperature(Default) AIN2:Humidity(Default) ...... AIN15:Temperature(Default) AIN16:Humidity(Default)	1234AIN03TCooling Room
Inquiry the Channel Name	PWD+ AIN+ Series Number <nn>		1234AIN0102 to inquiry 1 and 2 Channel name
Setup Threshold Value	PWD+ AINR+ Series Number+ Lxxx+ Hxxx+ #	Temperature: Low: xxxC, High: xxxC Humidity: Low: xxxRH%, High: xxxRH%	1234AINR01L-20H23# to setup low value as -20C, and high value is 23C.
Inquiry	PWD+ AINR		1234AINR
Inquiry the Current Value	PWD+ AINE	Temperature: xxxC, Normal/High/Low; Humidity: xxxRH%, Normal/High/Low;	1234AINE
Setup the High Alarm SMS Content	PWD+ AINH+ Series Number+ T+ xxxxxx (**Notice:** xxxxx=SMS content, Max:40 Characters)	AINHx: High Alarm (Default)	1234AINH01THigh Alarm
Inquiry the High Alarm SMS Content	PWD+ AINH+ Series Number<nn>		1234AINH0102 This command can inquiry the SMS content both channel 1 and channel 2
Setup the Low Alarm SMS Content	PWD+ AINL+ Series Number+ T+ xxxxxx (**Notice:** xxxxx=SMS content, Max:40 Characters)	AINLx: Low Alarm (Default)	1234AINL01TLow Alarm
Inquiry the Low Alarm SMS Content	PWD+ AINL+ Series Number<nn>		1234AINL0102 This command can inquiry the SMS content both channel 1 and channel 2
Setup the Recovery SMS Content	PWD+ AINTHR+ Series Number+ T+ xxxxxx (**Notice:** xxxxx=SMS content, Max:40 Characters)	AINTHRx: Recovery(Default)	1234AINTHR01TRecovery

Inquiry the Recovery SMS Content	PWD+ AINTHR+ Series Number<nn>		1234AINL0102 This command can inquiry the SMS content both channel 1 and channel 2
Setup the Temperature & Humidity Alarm Verify Time	PWD+ AIN+ Series Number+ Qyyy (Notice: yyy=0~999s, default=2 second,999=Not alarm)	Temperature: yyy Seconds Humidity: yyy Seconds	1234AIN01Q002 This command set the alarm verify time is 2 seconds.(Default)
Inquiry the Temperature & Humidity Alarm Verify Time	PWD+ AINQ		1234AINQ This command stands for inquiry all the channnels

14) Setup save historical data periodically time

SMS Command		Return SMS Content
Setup	PWD+ HISSAVE+ xxxxx (Notice: xxxxx=0~65535 seconds, default is 0, stands for not save.)	save historical data periodically time is: xxxxx Seconds
Inquiry	PWD+ HISSAVE	

15) Setup the Server Parameter (Cannot Setup the DNS by SMS)

SMS Command		Return SMS Content
Set Server IP	PWD+ IP+ IP address+ *+ Server port (IP address can write to domain)	Server: Port:
Inquiry	PWD+ IP	
Delete	PWD+ IPDEL	

16) Setup the GPRS Parameter (APN/USER NAME/PASSWORD)

SMS Command		Return SMS Content
Setup	PWD+ AP+ apn+ #+ username+ #+ userpassword (Notice: apn=access point name)	APN: User Name: Password:
Inquiry	PWD+ AP	
Delete	PWD+ APDEL	

17) Set GPRS Online/OFF

SMS Command		Return SMS Content
GPRS online	PWD+ GPRSonline	Online
GPRS OFF	PWD+ GPRSOFF	GPRS/3G Off

18) Setup the GPRS Communication Protocol

SMS Command		Return SMS Content
Setup	PWD+ GPRSON+ x (Notice: x=1/2; 1:Modbus; 2:Definition Protocol)	GPRS/3G:
Inquiry	PWD+ INTE	

Note: Set to Modbus protocol, the server parameters will be automatically changed to the domain name "modbus.dtuip.com", port "6651"; Set to definition protocol, the server parameters will be changed automatically to the domain name "www.rtu-m2m.com", port "8001"

19) Reboot By SMS

SMS Command	Return SMS Content
PWD+ REBOOT	Restart the device

20) Remote Factory Reset Parameters

SMS Command	Return SMS Content
PWD+ RESET	Set Successfully

21) Setup the Login Message (used for Modbus Protocol)

SMS Command		Return SMS Content
Setup	PWD+ RTP+ Login Message content Max. 50 characters	Registration package: ···
Inquiry	PWD+ RTE	

22) Setup the Heartbeat (used for Modbus Protocol)

SMS Command		Return SMS Content
Setup	PWD+ HET+ Heartbeat content Max. 20 characters, Default ACK	Heartbeat package content: ACK
Inquiry	PWD+ HEE	

23) Setup the Heartbeat Interval (used for Modbus Protocol)

SMS Command		Return SMS Content
Setup	PWD+ HT+ xxx xxx=0~9999, =0 stands for not upload, Default 60 seconds	Heart Pack Period: xxx seconds
Inquiry	PWD+ HTE	

24) Whether continue dialing after the alarm dialing answered

SMS Command		Return SMS Content
Stop dialing (default)	PWD+ COFF# Note: Anyone answered, will not continue dialing	Set Successfully
Continue dialing	PWD+ CON# Note: Continue dialing if did not press the button after the answered, Press * or # button to stop dialing. (4G version don't support this function)	

10. Data Communication Protocol

The S264/5/6 support GPRS/3G/4G data transfer to cloud server, support Modbus RTU protocol, TCP/IP protocol and GPRS definition protocol. For Definition Communication protocol, please refer to <S264/5/6 GPRS/3G/4G Temperature Humidity Data Logger Protocol Instruction>.
1.Modbus Register Address（support function 01 05 15）

DO1	DO2
0x00	0x01

2.Modbus Temperature Humidity Address(support function 04),value amplification coefficient is 10.

Temperature1	Humidity 1	Temperature 2	Humidity 2	Temperature3	Humidity 3	Temperature4	Humidity 4
0x9C40	0x9C41	0x9C42	0x9C43	0x9C44	0x9C45	0x9C46	0x9C47
Temperature5	Humidity 5	Temperature 6	Humidity 6	Temperature7	Humidity 7	Temperature8	Humidity 8
0x9C48	0x9C49	0x9C4A	0x9C4B	0x9C4C	0x9C4D	0x9C4E	0x9C4F

11. Upgrade Firmware

The S264/5/6 supports upgrade firmware via USB port directly. If we upgraded the firmware functions of the data loggers, we will inform you to upgrade the firmware if you required. If there any new requirements of the present functions caused it should update the firmware, the user can upgrade them directly by USB port. If you required upgrade, please contact us to modify the firmware according to you requirements, and we will provide the upgraded firmware to you to upgrade them.

12.Warranty

1) This system is warranted to be free of defects in material and workmanship for one year.
2) This warranty does not extend to any defect, malfunction or failure caused by abuse or misuse by the Operating Instructions. In no event shall the manufacturer be liable for any alarm system altered by purchasers

Any questions please help to contact us feel free.
Http://www.GPRS-M2M.com

--- The End! ---