# RK600-07 Data Logger of Automatic Weather Station

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RK600-07 Data Logger with data acquisition, storage, transmission and management, and other functions, is the core component of automatic weather station, which can connect 32 parameter at the same time, has the settings and color LCD display, can communication with PC via cable or wireless connection, provide communication protocol, convenient for secondary development.

### FEATURES

- Real-time display
- Multiple sensor interface
- Large storage
- Types of communication interface
- Udisk external storage optional
- Wireless optional
- Self-contained clock chip
- Solar power supply optional
- HMI app & Software

### **SPECIFICATION**

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RK600-07A

RK600-07B

Item	Details			
LCD	7" color touch screen			
Storage type	Internal storage or external U_disk is optional			
Internal storage	48M (If set to store every 1 hours can store data for more than 6 years; If set to store every 10 minutes can store data for approx. 1 years; If set to store every 1 minute can store data for 3 months)			
Data interface	RS232 or RS485(customized)			
Communication mode	Ethernet(add RS232 to ethernet converter); GPRS(add RS232 to GPRS converter),data flow consumption: <100MB/month WIFI(add RS232 to WIFI converter)			
Communication protocol	MODBUS-RTU(Open communication protocol, the user can convenient for			
	secondary development)			
Supply	12VDC with 100-240VAC adapter, solar power supply system optional			
Record interval	1min-240min adjustable			
Measurement parameters	32 Max.			
Power consumption	<5W			
Operating temperature	-40-+75℃			
Internal protection	Built-in power isolation protection			
HMI processor	ARM RISC 528MHz			
HMI app &	Mobile phone or PC operation and Monitor(Remote download of historical			
Software(RK600-07B)	data)			
Data Rose Map and Trend Chart	Customization according to customer product			
(RK600-07A)				



#### Guidelines for the Selection of Data logger:

If solar power supply is needed, RK600-07 is recommended, data logger, solar controller and battery can be installed in protective box.

### INTERFACE DESCRIPTION

#### Same Sensor of wind speed Interface

RKA	19/07/09 TUE 08:57:48 RK600-07 Data Logger
1# Wind speed	0.0 m/s 3# Wind speed 0.0 m/s
2# Wind speed	0.0 m/s 4# Wind speed 0.0 m/s
<u>6</u>	Local ID <u>1</u> Screen Saver <u>1</u> Min Backlight Record interval <u>10</u> Min

#### Same Sensor of Leaf wetness & temperature Interface

	RK600-0		19/07/04 THU 18:27:50
1# Leaf wetness	0.0	% 3# Leaf wetness	0.0 %
1# Leaf temperature	0.0	℃ 3# Leaf temperature	о <u>0.0</u> с
2# Leaf wetness	0.0	% 4# Leaf wetness	0.0 %
2# Leaf temperature	0.0	℃ 4# Leaf temperature	© <u>0.0</u> T
		Local ID 1	Screen Saver 1 Min
A]	Backlight	Record interval 10 Min	

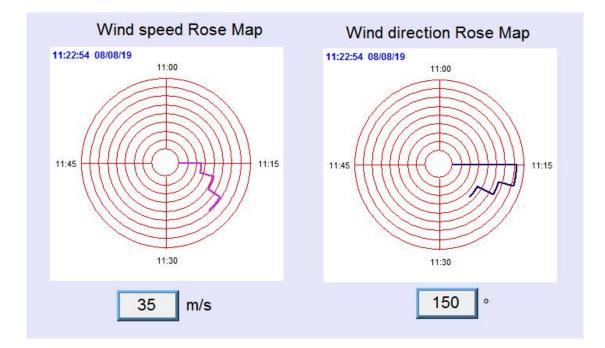
#### weather station Interface

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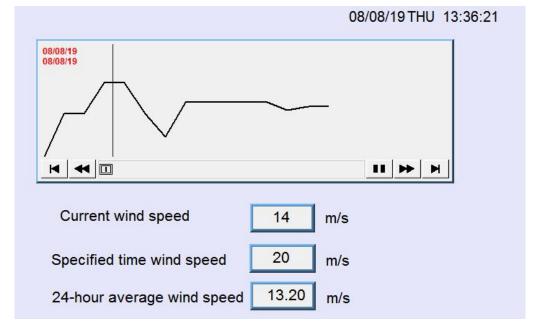


### Data Rose Map and Trend Chart

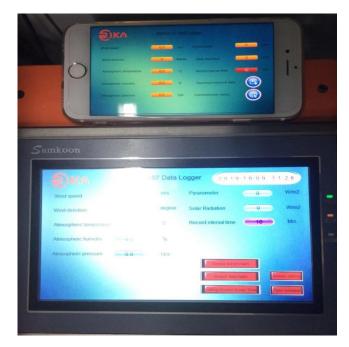


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### Mobile App Remote control





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(1)When the channel receives data normally, the channel indicator is green, and when the channel receives data abnormally, the indicator becomes red(Check whether the wire connection is good when receiving abnormal data).

(2)Backlight progress bar moved to the left backlight darkest, moved to the right brightest, in order to reduce power consumption, keep the progress bar on the leftmost side.

(3)Local ID default: 1(Decimal), you can modify it via MODBUS RTU command

(4)Screen Saver time default: 1min, in order to reduce power consumption, no modification is recommended.

(5) Record interval default:10 min, it can be modified by touch screen.First storage time is 10 minutes by default

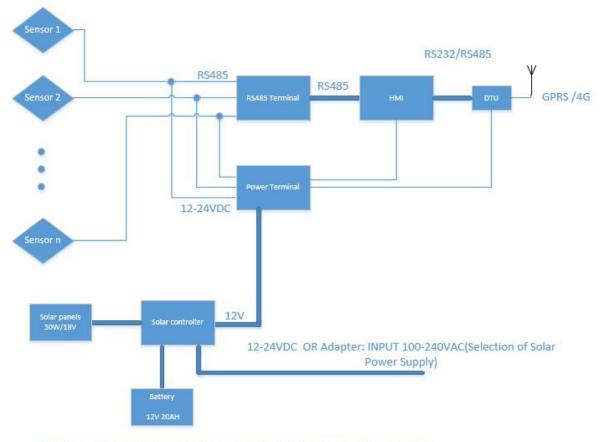
(6) Adjust the interface according to the type and number of sensors.

### COMMUNICATION MODE

- The AWS can communicate with the center workstation by RS232 or RS485. If the communication distance is less than 20m, RS232 communication is recommended; if communication distance is within 20 to 800m, RS485 communication is recommended.
- GPRS wireless communication, when cable routing is inconvenient, data can be transferred by GPRS wireless communication, the center workstation can network with several RK900-01 AWS.
- LAN access, RK900-01 AWS is worked as a LAN node communication in the local network by transferring the RS232 with a LAN module. This mode can work under the network interface, the AWS
- Ethernet: You can choose to take software with you by Ethernet.and download APP to Mobile phone And You can view and set it on your mobile phone. Also you can download Software to PC, and view and set it on your PC(Only one account login is valid for operation) This needs to be customized.

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### SYSTEM CONNECTION DIAGRAM



Note: Lead-acid batteries and lithium batteries use different solar controllers

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