

RK160-02 wind speed & direction display recorder is a meteorological instrument used to measure and record the wind speed and wind direction. The product adopts high-definition display the current date, time, the wind speed & wind direction value, built-in high-capacity flash memory chip which can be automatically stored for at least one-year meteorological data. It is available through two kinds of communication interface (RS232/RS485) establish a communication connection with a computer. The instrument can be widely used in meteorology, agriculture, forestry, environmental protection, marine, airport, port, scientific research and other fields. A complete set of products including RK600-08A data logger, wind speed sensor (RK100-01/RK100-02) & wind speed sensor (RK110-01/RK110-02). The default is RK100-02 & RK110-02, the RK600-08A data logger can also match RK120-01/02/03 to use.

## FEATURES

- Easy operation
- Visual display
- Real-time monitoring
- Rapid response
- Large capacity data storage
- Remote monitoring and processing of meteorological data analysis



## APPLICATIONS

- Weather monitoring stations
- Safety monitoring of high-altitude equipment
- Ports
- Solar and wind power generation
- Mobile weather monitoring vehicles
- Marine vessels
- Remote airports & helipads
- Road & rail tunnels

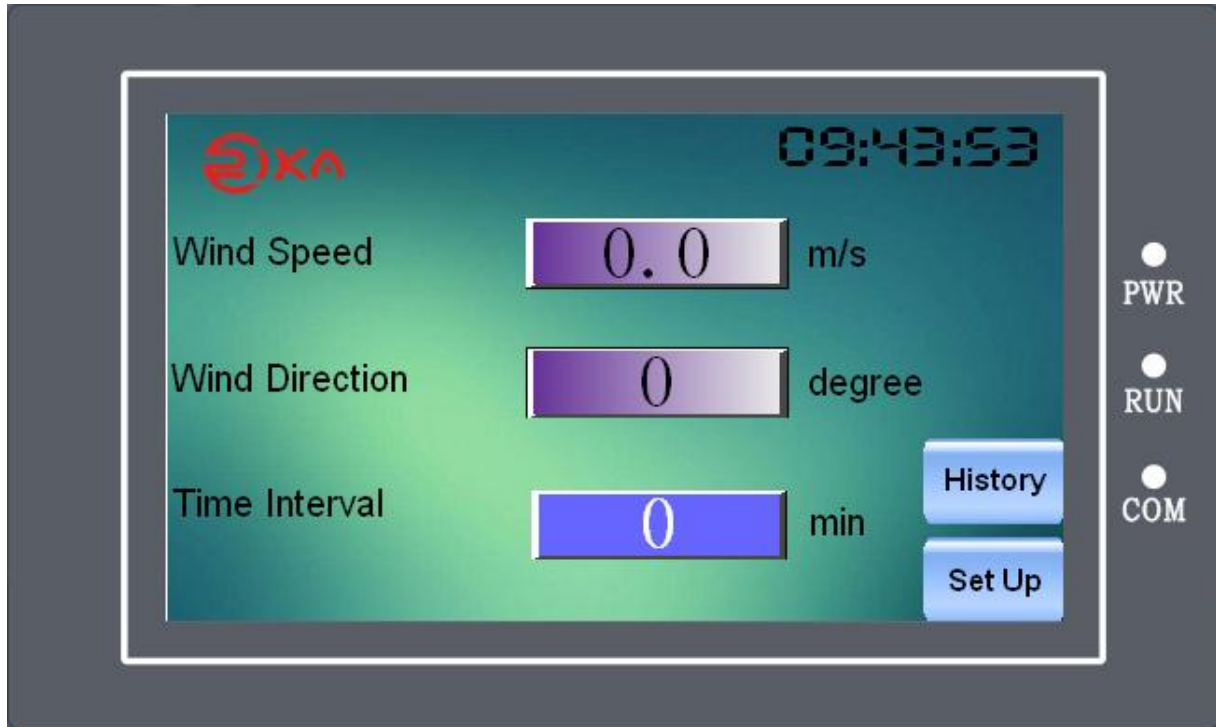
## SPECIFICATIONS

Item	Wind speed (RK100-02)	Wind direction (RK110-02)
Range	0-45m/s	0-360°
Resolution	0.1m/s	1°
Accuracy	±(0.3+0.03V) m/s	±3°
Power supply	12VDC (adapter AC100V-AC240V)	
Display	4.3" color touch screen	
Response time	<500mS	
Storage capacity	65000 pieces of data can be stored.	
Recording time interval	1min to 240 min optional	
Communication mode	WIFI, GPRS, Ethernet, RS485(typ.)	
Communication protocol	MODBUS-RTU	
Measurement parameters	32 Max.	
Power consumption	<4W	

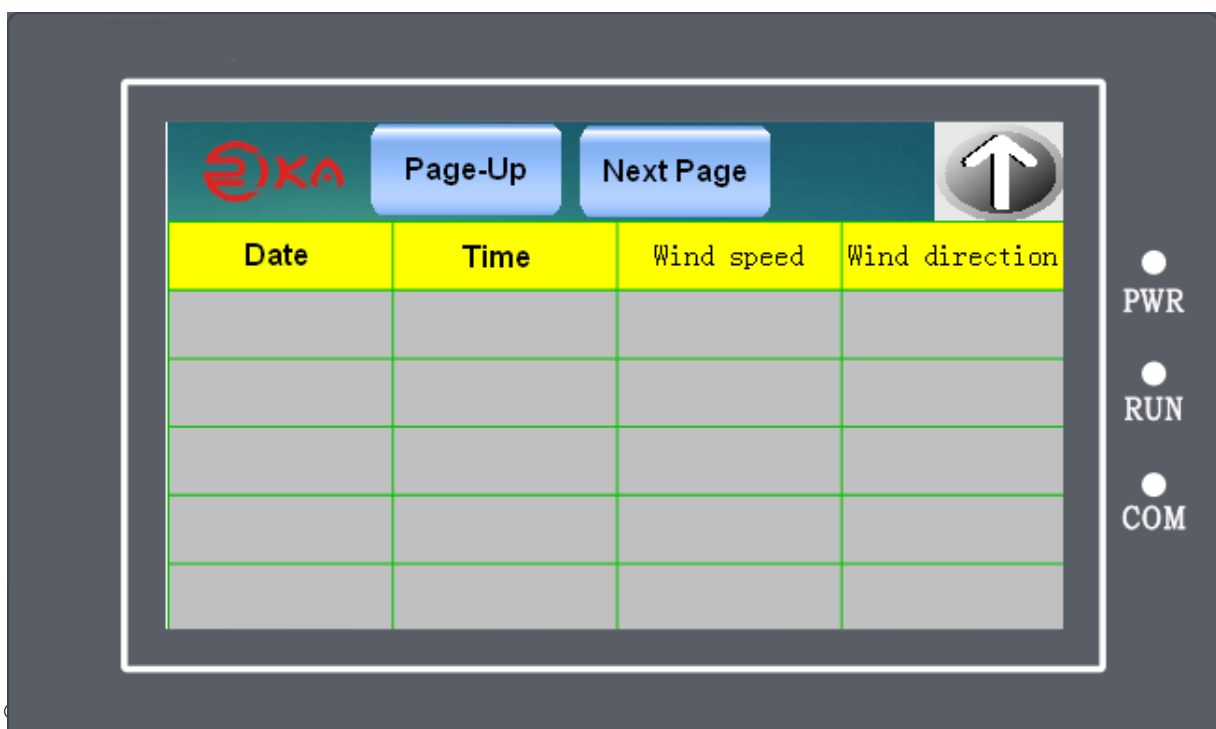
Operating temperature	-40°C~+70°C@5%RH~95%RH
HMI processor	ARM RISC 528MHz
Relay and alarm output	Customized alarm and relay control output

## INTERFACE DESCRIPTION

Real-time data display interface



Historical data display interface



Set interface



**APPENDIX: WIND SPEED-WIND SCALE TABLE**

Scale	Speed			Name	Conditions at Sea	Conditions on Land
	knots	km/h	m/s			
0	< 1	< 2	0-0.2	Calm	Sea like a mirror.	Smoke rises vertically.
1	1-3	1-5	0.3-1.5	Light air	Ripples only.	Smoke drifts and leaves rustle.
2	4-6	6-11	1.6-3.3	Light breeze	Small wavelets (0.2 m). Crests have a glassy appearance.	Wind felt on face.
3	7-10	12-19	3.4-5.4	Gentle breeze	Large wavelets (0.6 m), crests begin to break.	Flags extended, leaves move.
4	11-16	20-29	5.5-7.9	Moderate breeze	Small waves (1 m), some whitecaps.	Dust and small branches move.
5	17-21	30-39	8-10.7	Fresh breeze	Moderate waves (1.8 m), many whitecaps.	Small trees begin to sway.
6	22-27	40-50	10.8-13.8	Strong breeze	Large waves (3 m), probably some spray.	Large branches move, wires whistle, umbrellas are difficult to control.
7	28-33	51-61	13.9-17.1	Near gale	Mounting sea (4 m) with foam blown in streaks downwind.	Whole trees in motion, inconvenience in walking.
8	34-40	62-74	17.2-20.7	Gale	Moderately high waves (5.5 m), crests	Difficult to walk against wind. Twigs


					break into spindrift.	and small branches blown off trees.
9	41-47	76-87	20.8-24.4	Strong gale	High waves (7 m), dense foam, visibility affected.	Minor structural damage may occur (shingles blown off roofs).
10	48-55	88-102	24.5-28.4	Storm	Very high waves (9 m), heavy sea roll, visibility impaired. Surface generally white.	Trees uprooted, structural damage likely.
11	56-63	103-118	28.5-32.6	Violent storm	Exceptionally high waves (11 m), visibility poor.	Widespread damage to structures.
12	64-71	119-133	32.7-36.9	Hurricane	14 m waves, air filled with foam and spray, visibility bad.	Severe structural damage to buildings, wide spread devastation.
13	72-80	134-149	37-41.4	-	-	-
14	81-89	150-166	41.5-46.1	-	-	-
15	90-99	167-183	46.2-50.9	-	-	-
16	100+	184+	51+	-	-	-

Note: wave heights apply to the open sea; waves in sheltered waters will be lower and steeper. As sailors know, other factors such as swell and depth can also modify wave heights.

## PARAMETER SELECTION TABLE

Remark	Series	Type	Sensor	Cable Length	
RK					
	160				
		02			
			A		RK100-01/RK110-01
			B		RK100-02/RK110-02(typ.)
				2500	Units:mm(typ.)
				3000	Units:mm
				...	Units:mm

Example: RK160-02B2500 Sensor:RK100-02/RK110-02, Cable Length:2.5m.


 Complies with applicable CE directives.

Specifications subject to change without notice. Version 3.0

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