WM-RK100-02 Wind Speed Sensor

The RK100-02 Wind Speed Sensor uses a sensitive 3-cup anemo meter designed to measure wind speed and wind run. The cups ar e made of carbon fiber material, with high intensity and low starting threshold. The signal processing units are built in the housing shell. It can be widely used in meteorology, marine, environmental monit oring, airport, harbor, laboratory, industrial and agricultural areas.

FEATURES

- Low starting threshold
- Overall carbon fiber material
- Strong corrosion resistant ability
- Light structure
- Various output signals optional
- Easy Installation

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 n

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SPECIFICATIONS

Output	Pulses	4-20mA	0-5V	RS485
Supply Voltage	5V,12V-24V	5V,12V-24V	5V,12V-24V	5V,12V-24V
Load Capacity	>1kΩ	<500Ω(typ 250Ω)	>1kΩ	
Range	0-45m/s	0-45m/s	0-45m/s	0-45m/s
Accuracy	±(0.3+0.03V)m/s; (V is the current wind speed)			
Starting Threshold	<0.5m/s			
Limit Wind Speed	50m/s			
Ingress Protection	IP65			
Operating Temperature	-40℃~ +50℃			
Cable Grade	Nominal voltage:300V ,Temperature grade:80℃			
Weight(unpacked)	170g			
Dimension	Cup rotor:179mm,Height:160mm			
Main material	Carbon fiber			
Storage Condition	10℃-50℃@20%-90%RH			

The output voltage amplitude is 5V.

UTPUT CHARACTERISTICS

Pulses

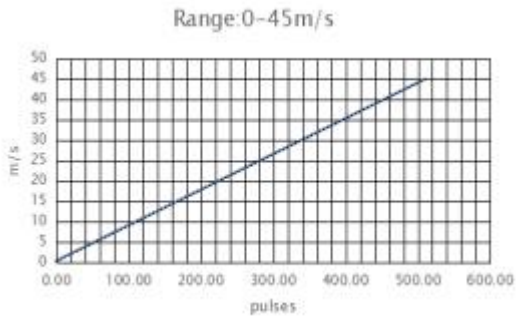
Characteristic transfer function:

F=0,V=0;

F≠0,V=0.3+0.0877×F

(where V = wind speed (m/s),

F = output frequency(Hz))



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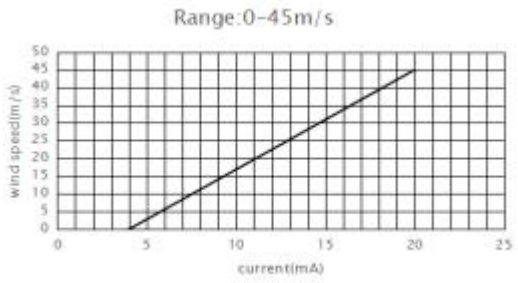
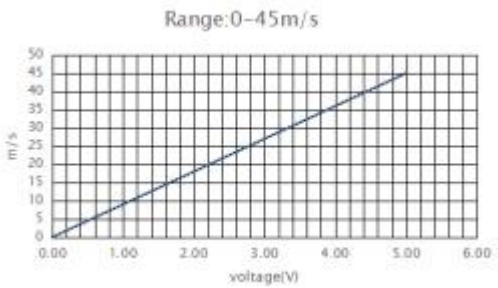
Current



Voltage



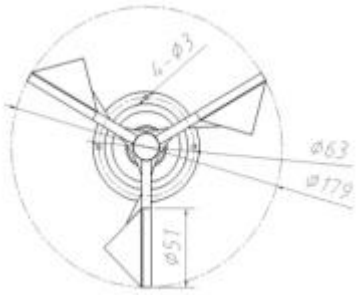
RS485

If the transmission distance is over 100m, please add a 120Ω terminal matching resistances on the front end and back end of bus interface respectively.See the modbus communication protocol specification.

MOUNTING

Flange mounted, fix four screws on the bracket and keep the product horizontal.

Connector dimension：



ELECTRICAL CONNECTIONS

Connector(cable)	Pulses	Voltage	Current	RS485
Pin 1(red)	V+	V+	V+	V+ (red)
Pin 2(yellow)	Signal out	Vout	Iout	RS485A(yellow)
Pin 3(black/green)	V-	V-	V-	RS485B(blue)
Pin 4(blue)	/	/	/	V-(black/green)