



Wind measurement, Wind monitoring, Ultrasonic wind sensor

Overview

The **BS100-02 Wind Speed Sensor** features a highly sensitive 3-cup anemometer, expertly engineered to accurately measure wind speed and wind run. Constructed entirely from high-strength carbon fiber, the sensor offers a lightweight structure with excellent durability and a low starting threshold for enhanced responsiveness. The signal processing components are integrated within a

sealed housing, ensuring reliability in harsh environments.

Designed for versatility, the **BS100-02** is ideal for applications in meteorology, marine operations, environmental monitoring, airports, harbors, laboratories, as well as industrial and agricultural settings.

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 and Helipads
- ✓ Road and Rail Tunnels

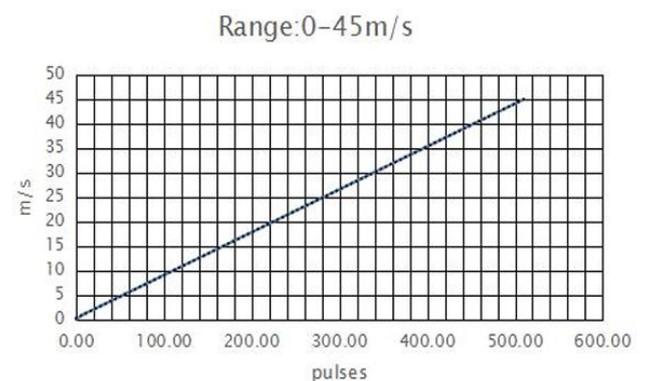
Output Characteristics

• Pulses

Characteristic Transfer Function:

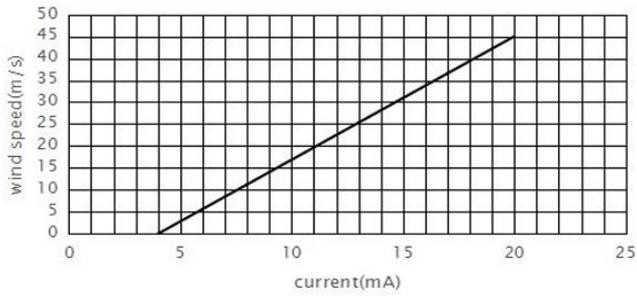
$$F=0, V=0, F \neq 0, V=0.1+0.0875 \times F$$

(where V = Wind Speed (m/s), F = Output Frequency (Hz))



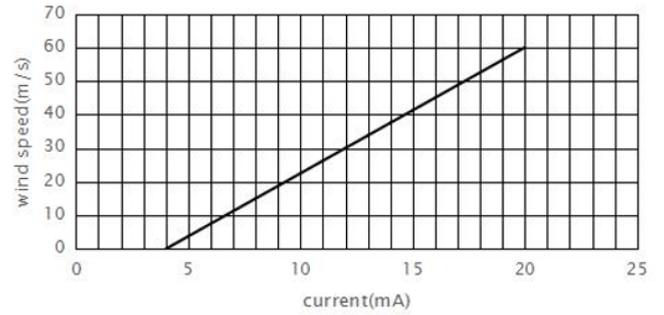
- **Current**

Range:0-45m/s



- **Voltage**

Range:0-60m/s



- **RS485**

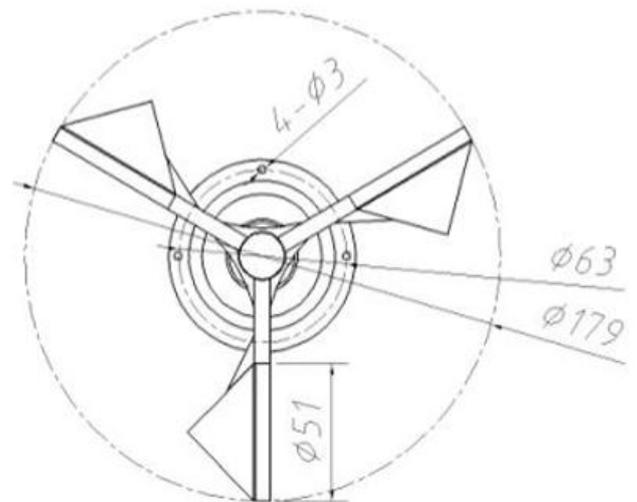
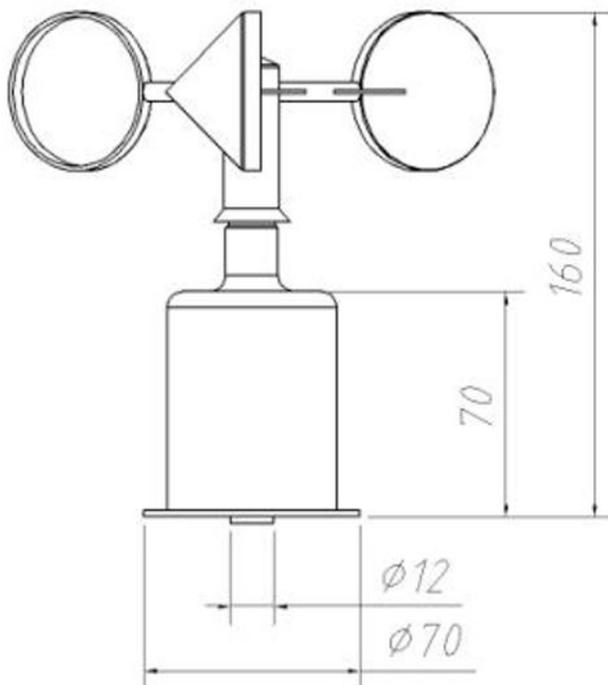
If the transmission distance is over 100m, please add a 120Ω terminal matching resistances on the front end and back end of bus interface respectively. See the modbus communication protocol specification.

Dimension and Mounting

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

Connector dimension :

ø15mm (recommended reserving ø 25mm for wiring)



Technical 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°C ~ 50°C			
Cable Grade	Nominal Voltage: 300V, Temperature Grade: 80°C			
Weight (Unpacked)	170g			
Dimension	Cup rotor: ø179mm, Height: 160mm			
Main Material	Carbon Fiber			
Storage Condition	10°C ~ 50°C@20% ~ 90%RH			

Parameter Selection Table

Remark	Series	Type	Supply	Output	Cable Length	
BS						
	100					
		02				
			A			5V
			B			
			C			12 ~ 24V
			X			Other
				A		4-20mA
				B		0 ~ 5V
				C		RS-485
				D		Pulses
				X		Other
					2500	Units: mm(typ)
					3000	Units: mm
					...	Units: mm

For comprehensive details, visit: www.buraq.com/BS100-02 



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HQ: Buraq Center, 11-D, 6th Road, Satellite Town, Rawalpindi, Pakistan.

STZ: 1st Floor, Alpha-18, NASTP, Old Airport Road, Rawalpindi, Pakistan.



info@buraq.com