

CSSC100 Wind Speed Sensor

The Wind Speed Sensor is specifically designed to accurately and reliably measure wind velocity under the adverse environmental conditions. Digital circuits capable of strong RFI & EMI resistance and automatic temperature compensation are build-in, it outputs voltage and current signals by electromagnetic induction, the value and horizontal wind speed are linear relation. Shell is made of high-strength aluminum alloy, the wind cup is made of 304 stainless steel, the PCB board is painted with anti-corrosion coating, featured with water proof, corrosion resisting. Inside and turning position have sealing rings with nice sealing function, stop water, salt fog and dust getting in. The Wind speed sensor has good performance in harsh environment.

FEATURES

- Low starting threshold
- Massive all-metal construction
- Strong corrosion resistant ability
- Stainless steel Wind cup, anti-wind load until 70m/s
- Double bearing design
- Surge protection design
- 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

SPECIFICATIONS

Output	Pulses	4-20mA	RS485	0-2V/0-5V/0-10V
Supply Voltage	5-24VDC	12-24VDC	12-24VDC	12-24VDC
Load Capacity	>2kΩ	<500Ω(typ 250Ω)		>2kΩ
Range	0-30m/s,0-60m/s			
Accuracy	± (0.3+0.03V) m/s			
Response time	<1s			
Starting Threshold	<0.3m/s			
Limit wind speed	70m/s			
Ingress Protection	IP65			
Operating Temperature	-30°C-+70°C			
Weight(unpacked)	240g			

Dimension	Cup rotor:ø220mm,Height:175mm
Main material	Cup:304stainless steel, Main Body:Aluminum alloy
Finish	Polyester powder electrostatic spraying(black)
Storage Condition	10°C-60°C@20%-90%RH

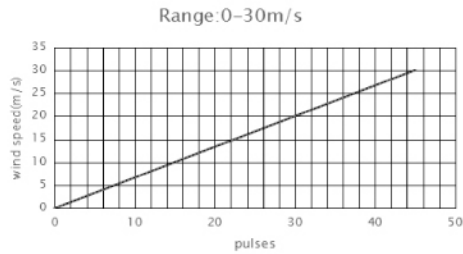
OUTPUT CHARACTERISTICS

● Pulses

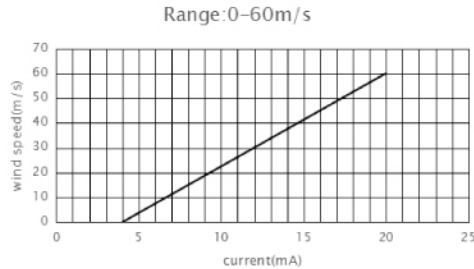
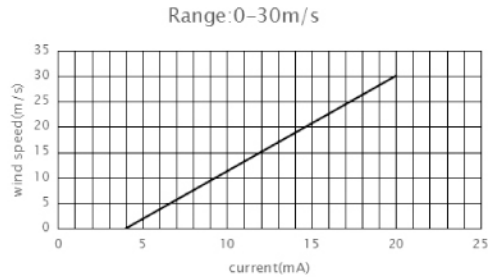
Characteristic transfer function:

$$V=0.667 * F$$

(where V = wind speed (m/s), F = output frequency(Hz))



● Current



● Voltage

Characteristic transfer function:

$$V=U / (\text{full scale voltage}-\text{zero point voltage}) * 30 (\text{Range:0-30m/s}),$$

$$V=U / (\text{full scale voltage}-\text{zero point voltage}) * 60 (\text{Range:0-60m/s}).$$

(where V = wind speed (m/s), U = output voltage(V))

● 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.