CODA

CDF-20B Combined Wind Speed & Direction

For weather automation applications

CDF-20B Combined Wind Speed & Direction Sensor is assembled with aluminum alloy precision machined parts, which has high strength and convenient installation. The wind speed part adopts the traditional three-wind cup structure, the wind cup is made of ABS, the starting performance is good, the measuring range is large, the linearity is good,stable and reliable. The wind direction part adopts low inertia wind direction to respond to the wind direction. When the wind direction changes, the tail wheel drives the angle sensor to sense the azimuth change, thereby generating a change of electrical signal output, good linearity, high precision, and no blind zone..

Typical installation locations

- Top of building
- Walls
- Open areas
- Outdoor locations

Design structure

Three-cup wind speed sensor is a common instrument used to measure wind speed, which is mainly composed of shell, wind cup and circuit module. The sensing part is usually composed of three or four conical or hemispherical empty cups, which are fixed on a trident star bracket at 120° each other or a cross bracket at 90° each other, and the concave surface of the cup is arranged in one direction, and the entire transverse arm is fixed on a vertical rotating axis.

Easy installation

Professional mounting brackets can be used to hold the sensor in place to prevent shaking or displacement due to wind or other external forces. The installation bracket should have sufficient strength and stability to withstand the wind effect under various adverse weather conditions.

or a cross bracket at 90° each other, and the concave surface of the cup is arranged in one direction, and the entire transverse arm is fixed on a vertical rotating axis.

Reliable operation

The three-cup design is sensitive to wind and can quickly and accurately sense changes in wind speed.Its measurement accuracy remains stable within a certain range, and there will be no obvious deviation due to environmental changes or long-term.

Dimensions & installing

CDF-20B connector dimension

225mm
54mm
105mm
228mm
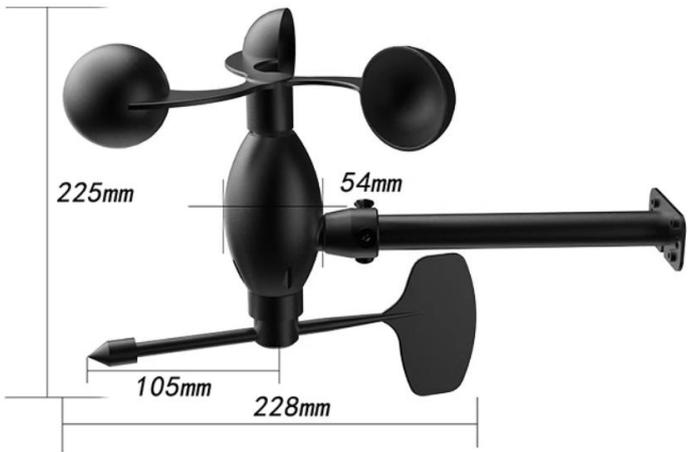
Installation orientation points north

Various types of brackets

Customizable heating for cold regions

Technical data

Measurement performance, models CDF-20B

Item	Wind speed	Wind direction
Range	0-30m/s,0-50m/s,0-60m/s	0-360°
Resolution	0.1m/s	1°
Accuracy	±(0.3+0.03V) m/s	±1°
Power supply	12-24VDC	
Output	0-5V/0-10V 4-20mA RS485 SDI-12	
Starting Threshold	<0.3m/s	
Operating Temperature	-30℃~ +70℃	
Main material	aluminium alloy	
Response time	<1s	

Model number	Type	Output	Special features
CDF-10A	Wind speed	Pulses(PNP) RS485 4-20MA 0-5V	Three cup plastic wind speed
CDF-11A	Wind direction	RS485 4-20MA 0-5V	Plastic wind direction sensor
CDF-12A	Pipe wind speed	RS485 4-20MA 0-5V 0-10V	Duct type wind speed sensor
CDF-13B	Wind speed display controller	LED display	Wireless output relay output
CDF-15A	Digital Anemometer	LCD display	Hand-held anemometer
CDF-21A	Ultrasonic Wind Speed & Direction	RS232/RS485(Modbus/NMEA-0183), Voltage(0-5V),Current(4-20mA) optional	Ultrasonic principle
CDF-22A	Mini Ultrasonic Wind Speed & Direction	4-20mA,RS232/RS485(Modbus or NMEA-183), SDI-12	Ultrasonic principle
CDF-26B	Recorder station for wind	LCD display & 4G WIFI Ethernet	Wind speed & direction recorder
CDQ-T6A	Miniature Ultrasonic Automatic Weather	RS485	Wind speed & direction temp & humidity &pressure
CDW-33A	Atmospheric Temperature,Humidity & Pressure	RS485	Shelter installation
CDY-12A	Economical Tipping Bucket Rainfall	Pulses(@10kΩ&0.01uF),RS485	Diameter :φ200mm, height: 271mm
CDG-10B	Solar Radiation	0-5V,4-20mA,RS485	Spectral range:300～1100nm

Hunan Coda Electronic Tech Co.,Ltd

T:+86-0731-85117089

W:www.codasensor.com

E:Molly@codasensor.com