



MECHANICAL WIND DIRECTION SENSOR



Introduction

The mechanical wind direction sensor is a wind direction measuring device based on mechanical transmission principle, whose core components include wind vane, rotating shaft and angle induction module.

Driven by wind force, the wind vane points to the incoming wind direction. The rotating shaft transmits the mechanical deflection angle to the induction module, which is finally converted into output electrical signals or digital signals.

Scenarios

Meteorology: Daily wind direction recording at grassroots monitoring stations

Agricultural production: Greenhouse ventilation, farmland wind disaster early warning

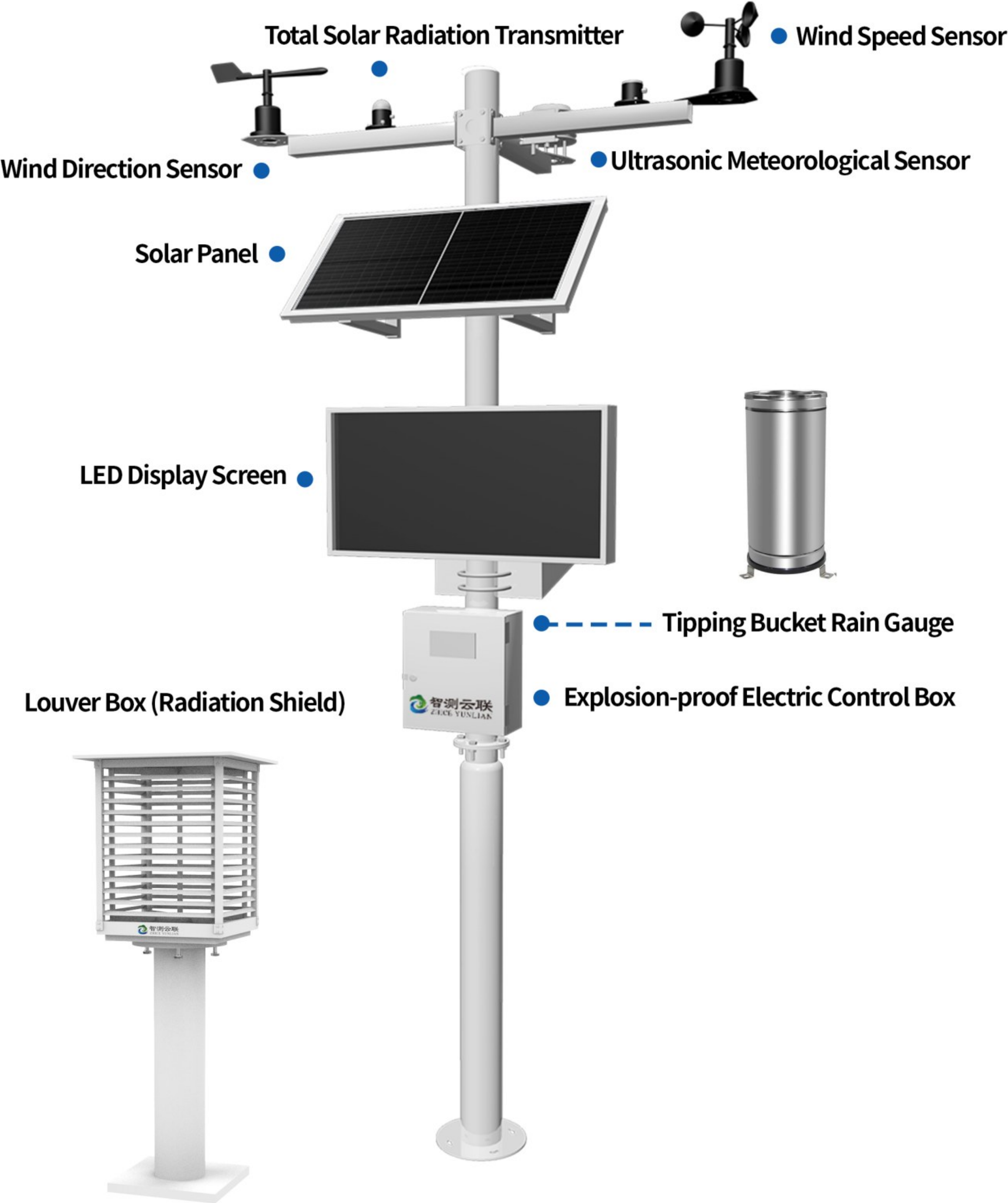
Ports & docks: Auxiliary operation with simple wind condition monitoring

Environmental protection monitoring: Ambient wind field data collection at small monitoring sites





 Product Description





Parameters

Technical Parameter	Specification Description
Operating Voltage	DC 12V
Output Signal	RS485 (Modbus protocol)
Measuring Range	0~360°
Starting Wind Speed	≤0.5m/S
Accuracy	±2°
Main Body Material	Aluminum alloy with polyester coating
Operating Temperature	-40℃~+80℃
Humidity	0%~95% (non-condensing)
Wind Resistance	Stable under wind speed >70m/S for 30 minutes
Protection Grade	IP67



Description

Built-in protective circuits against strong radio frequency interference, electromagnetic interference and lightning surge, this sensor is used for wind direction measurement in construction machinery, railway, port, power plant, meteorology, cableway, environmental monitoring, greenhouse, breeding and other industries. Its main structural parts are made of alloy material with surface treatment, featuring excellent waterproof and anti-corrosion performance.

Both internal and rotating parts adopt sealed design to effectively block water, salt spray and dust ingress.

Features

1. Adopts non-contact magnetic sensing measurement principle with high measuring accuracy and strong reliability
2. High-precision alloy main body with polyester coating, outstanding wind resistance and corrosion resistance
3. Convenient observation, stable and reliable performance
4. Fault-tolerant design for sensor circuit protection

