

# Smart Agriculture Industry Solution



| Measure item               | Measure range                 | Resolution               | Accuracy          | Model   |
|----------------------------|-------------------------------|--------------------------|-------------------|---------|
| Wind speed                 | 0-45m/s                       | 0.1m/s                   | ± (0.3±0.03V) m/s | CDF-10A |
| Wind direction             | 0-360°                        | 1°                       | ±3°               | CDF-11A |
| Atmospheric temperature    | -50-+100°C                    | 0.1°C                    | ±0.5°C            |         |
| Atmospheric humidity       | 0-100%RH                      | 0.1%RH                   | ±3%               | CDW-33A |
| Atmospheric pressure       | 10-1100hPa                    | 0.1hpa                   | ±0.3hPa           |         |
| Solar radiation            | 0-2000W/m <sup>2</sup>        | 1W/m <sup>2</sup>        | ±5%               | CDG-10B |
| PAR sensor                 | 0-2500μ*mol*m <sup>2</sup> *s | 1μ*mol*m <sup>2</sup> *s | ±1%               | CDG-12B |
| Rainfall                   | 0-8mm/min                     | 0.2mm                    | ±4%               | CDY-12A |
| Soil temperature           | -50-+80°C                     | 0.1°C                    | ±0.5°C            |         |
| Soil moisture              | 0-100%                        | 1%                       | ±3%               | CDT-22B |
| CO <sub>2</sub> (optional) | 0-5000ppm                     | 1ppm                     | ±3%               | CDW-12A |
| Soil PH(optional)          | 0-14PH                        | 0.1PH                    | ±0.1PH            | CDT-17B |
| Soil EC(optional)          | 0-20mS/cm                     | 0.1mS/cm                 | ±5%               | CDT-30B |

# Agriculture Weather Station



**CDF-10A Wind Speed**

**CDF-11A Wind Direction**

- By knowing wind speed and direction, farmers can arrange their crops properly, and wind measurement is essential for pesticide and fertilizer spraying operations.



**CDW-33A Atmospheric Temperature & Humidity & Pressure**

- Temperature and humidity directly affect the growth rate and development stage of crops.



**CDG-10B Solar Radiation**



**CDG-12B PAR Sensor**

- Radiation is the energy source for photosynthesis in crops. Photosynthesis is a key process for crops to convert light energy into chemical energy and synthesize organic matter. Different intensities and wavelengths of radiation affect the photosynthetic efficiency of crops.

# Agriculture Weather Station



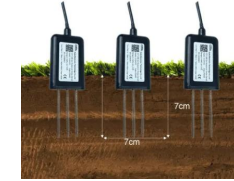
## CDY-12A Rainfall

- First, rainfall directly affects the irrigation needs of crops. Appropriate rainfall can meet the water demand in the process of crop growth, reduce the dependence on artificial irrigation, and reduce agricultural production costs.



## CDT-17B Soil PH

- Soil pH directly affects the availability and availability of nutrients in soil, and soil pH restricts the type selection and planting layout of crops. Different crops have different adaptations to soil pH.



## CDT-22B Soil Temperature & Humidity

- Soil temperature is directly related to the germination of seeds and the growth of seedlings, and also affects the growth and absorption function of roots. Soil moisture determines whether crops can obtain sufficient water, ensuring the normal progress of photosynthesis and cell metabolism.



## CDW-12A CO2

- CO<sub>2</sub> is an important raw material for plant photosynthesis. Increasing CO<sub>2</sub> concentration within a certain range can significantly improve the efficiency of photosynthesis, thereby promoting plant growth and increasing yield.