

# CDQ-T3C Automatic Integrated weather station

# For weather automation applications



#### **Features**

- No moving parts, no maintenance, can work in any altitude. Strong corrosion resistant ability
- · High sensitivity
- Low power consumption
- · Light weight, long service life
- High-strength structural design
- Easy to install, all-weather measurement
- Strong resistance to harsh environment

CDQ-T3C The small automatic weather station is a kind of civilian integrated weather station independently developed by our company, which can measure multiple meteorological parameters. It can simultaneously measure various meteorological elements such as atmospheric temperature, atmospheric humidity, wind speed, wind direction, air pressure, rainfall, radiation, illumination, UV radiation, visibility, PM2.5 and PM10.

#### **Typical installation locations**

- · Environmental monitoring
- Sea-going vessel
- Bridge & Tunnel
- Solar and wind power generation

#### **Design structure**

Common transmission methods include wired transmission (such as RS232, RS485, Ethernet, etc.) and wireless transmission (such as GPRS, WiFi, Bluetooth, LoRa, etc.). Data can be transferred to a local monitoring terminal (such as a computer, display screen, etc.) for real-time display and storage, and can also be transferred to a remote server or cloud platform for users to remotely access and analyze through the Internet.

## **Easy installation**

Stay away from buildings, trees and other obstacles to ensure that the weather station can accurately measure wind direction and speed.

Avoid installation in low-lying areas to prevent water from affecting the normal operation of the weather station.

Choose a flat, stable surface to ensure that the weather station is securely installed

#### Reliable operation

The communication protocols of weather stations usually adopt international standards or industry standards, such as Modbus, TCP/IP, etc., which has high reliability and compatibility. The reliability of the communication protocol can ensure the accurate transmission and reception of meteorological data, and avoid data loss and error

# Technical data

## Measurement performance, models CDQ-T3C

| Item                   | Range                                 | Resolution         | Accuracy              |
|------------------------|---------------------------------------|--------------------|-----------------------|
| Wind speed             | 0-70m/s                               | 0.1m/s             | ±3%                   |
| Wind Direction         | 0-359°                                | 1°                 | ±3°                   |
| Temperature            | -40-80℃                               | 0.1℃               | ± <b>0.5</b> °C       |
| Humidity               | 0-100%                                | 0.1%               | ±3%                   |
| Barometric pressure    | 300-1100hpa                           | 1hpa               | ±1                    |
| Rainfall               | 0-200mm/h                             | 0.01mm             | ±8%(Wind speed ≤5m/s) |
| Altitude               | -500m-900m                            | 1m                 | ±5%                   |
| Radiation              | 0-2000W/m3                            | 0.1W/m2            | ±5%                   |
| Illuminance            | 0-200000LUX                           | 0.1LUX             | ±5%                   |
| PM2.5 PM10             | 0-2000ug/m3                           | PM2.5 :0.1 PM10: 1 | ±5%                   |
| Visibility             | 20-10000M                             | 1m                 | ±15%                  |
| Noise                  | 30-110dB                              | 1dB                | ±3%                   |
| Supply                 | 7-24V DC adapter (included) 0.7W(MAX) |                    |                       |
| Output                 | RS232 RS485 SDI-12                    |                    |                       |
| Communication protocol | Modbus-Rtu NMEA-0183 ASCII            |                    |                       |
| Level of protection    | IP65                                  |                    |                       |
| Size / weight          | Diameter:110mm*(217-298) / 0.38Kg     |                    |                       |
| Material               |                                       | ABA                |                       |

| Model number | Туре                                 | 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             |
| CDG-10B      | Solar Radiation                      | 0-5V,4-20mA,RS485             | Spectral range:300~1100nm                 |
| CDG-11B      | Pyranometer                          | 0-20mV,RS485                  | Spectral range:300~3000nm Class one       |
| CDG-12B      | PAR sensor                           | 0-5V 4-20mA RS485             | Spectral range:400~700nm                  |
| CDG-13B      | Ultraviolet(UV) Radiation            | 0-5V 0-10V 4-20mA RS485       | Spectral range:280~400nm                  |
| CDG-14A      | Illuminance Sensor                   | 0-5V 0-10V 4-20mA RS485       | Spectral range:380~780nm                  |
| CDG-17B      | Scattering Radiometer                | RS485                         | Spectral range:280~3000nm                 |
| CDQ-T6A      | Miniature Ultrasonic Automatic       | RS485                         | Wind speed%direction                      |
|              | Weather Instrument                   |                               | Atmospheric temperature&humidity&pressure |
| CDQ-T0C      | Automatic Weather Station            | RS485 4G/WIFI/Ethernet        | Wireless data transmission                |
| CDQ-T1C      | Automatic Integrated weather station | RS485 SDI-12                  | Multiparameter integration                |
| CDQ-T8A      | WIFI Weather Station                 | WIFI LCD display              | 7 in 1 weather station                    |
| CDQ-T9A      | Plastic Weather Station              | LCD display                   | 7 in 1 weather station                    |

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