CDQ-T1C 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-T1C automatic weather instrument is simultaneously measure the atmospheric temperature, atmospheric humidity, air pressure, wind speed, wind direction, solar radiation, Illuminance/UV, dust concentration and precipitation. Temperature, humidity and air pressure sensor is placed within the radiation shield. Wind speed and direction of ultrasonic principle.24G radar detection on rainfall, which can quickly detect rainfall and rainfall intensity

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.

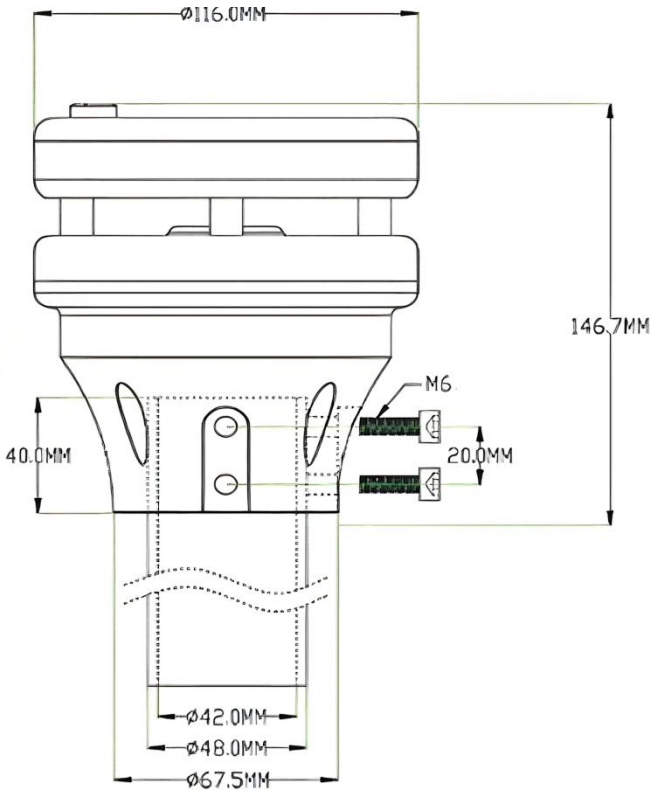
Choose a flat, stable surface to ensure that the weather station is securely installed

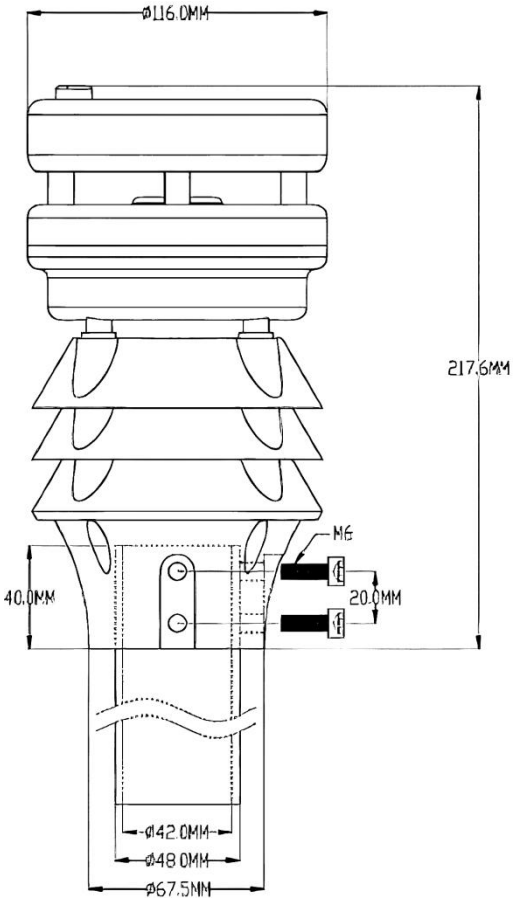
Reliable operation

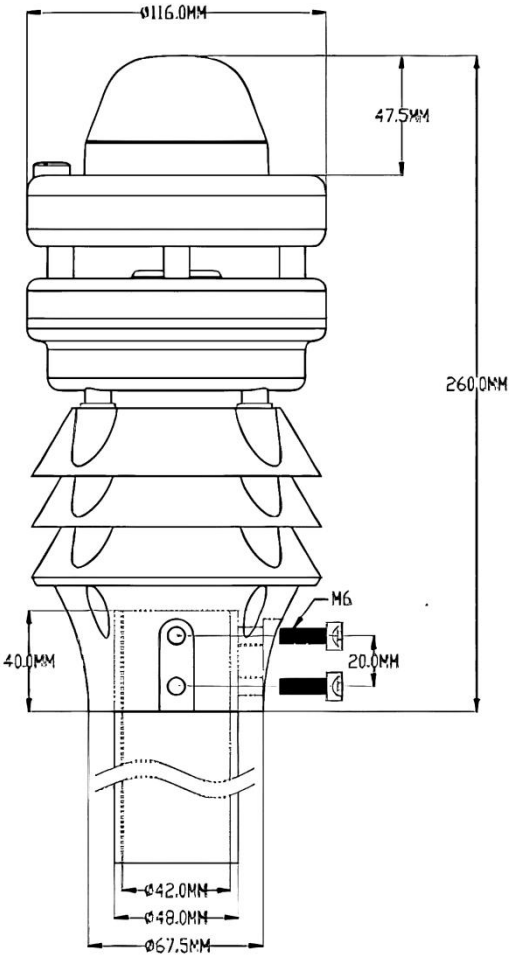
The communication protocols of weather stations usually adopt international standards or industry standards, such as Modbus, TCP/IP, etc., which has high reliability and compatibility. The reliability of the communication protocol can ensure the accurate transmission and reception of meteorological data,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

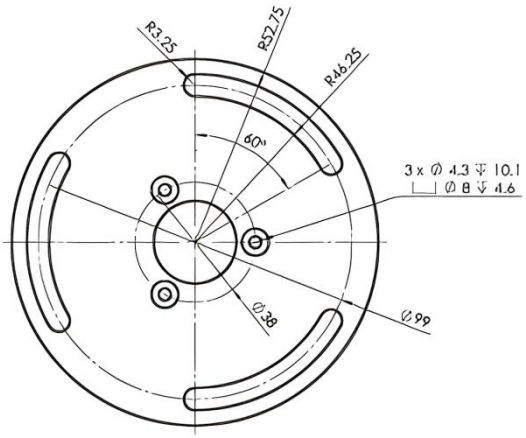
Dimensions

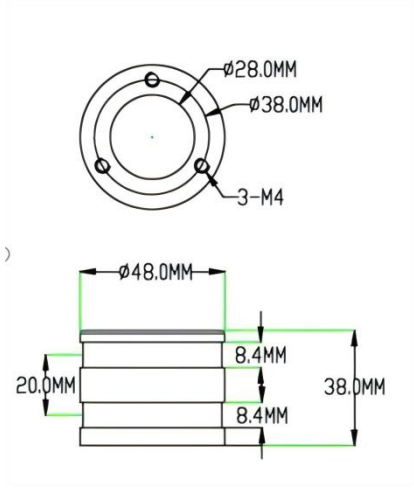
CDQ-T1C connector dimension











Technical data

Measurement performance, models CDQ-T1C

Model	CDQ-T1C200L	CDQ-T1CXF500	CDQ-T1C500GL	CDQ-T1C500SL	CDQ-T1C600AL
Measured Parameters	Wind speed Wind direction	Temperature, Humidity, Air Pressure, Wind Speed, Wind Direction	Temperature, Humidity, Air Pressure, Wind Speed, Wind Direction, Illumination	Temperature, Humidity, Air pressure, Wind Speed, Wind Direction, Solar Radiation	Temperature, Humidity, Air pressure, Wind Speed, Wind Direction, Rainfall
Measuring Range	0-40m/s 0-359.9°	-40-85℃ 0-100%RH 300-1100hPa 0-40m/s 0-359.9°	-40-85℃ 0-100%RH 300-1100hPa 0-40m/s 0-359.9° 0-200KLux	-40-85℃ 0-100%RH 300-1100hPa 0-40m/s 0-359.9° 0-2000W/m2	-40-85℃ 0-100%RH 300-1100hPa 0-40m/s 0-359.9° 0-200mm/h
Accuracy	± (0.5+0.05V)m/s, ±5° (wind speed <10m/s)	≦ ± 0.3 ℃ ≦ + / - 3% RH ≦ + / - 0.3 hPa (@ 25 ℃,) ± (0.5+0.05V) m/s ±5° (wind speed < 10m/s)	≦ ± 0.3 ℃ ≦ + / - 3% RH ≦ + / - 0.3 hPa (@ 25 ℃,) ± (0.5+0.05V) m/s ±5° (wind speed < 10m/s) ±1%F.S	≦ ± 0.3 ℃ ≦ + / - 3% RH ≦ + / - 0.3 hPa (@ 25 ℃,) ± (0.5+0.05V) m/s ±5° (wind speed < 10m/s) ±5%	≦ ± 0.3 ℃ ≦ + / - 3% RH ≦ + / - 0.3 hPa (@ 25 ℃,) ± (0.5+0.05V) m/s ±5° (wind speed < 10m/s) ±4%
Resolution	0.01m/s 0.1°	0.01℃ 0.01%RH 0.1hPa 0.01m/s 0.1°	0.01℃ 0.01%RH 0.1hPa 0.01m/s 0.1° 10Lux	0.01℃ 0.01%RH 0.1hPa 0.01m/s 0.1° 1W	0.01℃ 0.01%RH 0.1hPa 0.01m/s 0.1° 0.2mm
Output	RS485(MODBUS-RTU),SDI-12(Need to add modules)				
Power Supply	DC9-24V				
Product Size (mm)	116*147	116*217	116*217	116*217	116*225

Model	CDQ-T1CXF603	CDQ-T1C700L	CDQ-T1C800L	CDQ-T1C900L
Measured Parameters	Temperature Humidity PM2.5 PM10 Noise Illumination	Temperature Humidity, Air pressure Wind speed Wind direction Rainfall, Illumination	Temperature Humidity Air pressure Wind speed Wind direction PM2.5 PM10 Noise	Temperature Humidity Air pressure Wind speed Wind direction PM2.5 PM10 Noise Illuminance/ Solar radiation Rainfall
Measuring Range	-40-85℃ 0-100%RH 0-500ug/m³ 0-500ug/m³ (1000ug/m³) 30-130dB 0-200klux	-40-85℃ 0-100%RH 300-1100hPa 0-40m/s 0-359.9° 0-200mm/h 0-200klux	-40-85℃ 0-100%RH 300-1100hPa 0-40m/s 0-359.9° 0-500ug/m³ 0-500ug/m³ (1000ug/m³) 30-130dB	-40-85℃ 0-100%RH 300-1100hPa 0-40m/s 0-359.9° 0-500ug/m³ 0-500ug/m³（1000ug/m³） 30-130dB 0-200klux/ 0-2000W/m2 0-200mm/h
Accuracy	≦±0.3℃ ≦±3%RH（@25℃） ±（10+10%）ug/m³ ±（10+10%）ug/m³ ±1.5dB ±3% or1%F.S	≦±0.3℃ ≦±3%RH （@25℃） ≦±0.3hPa ±（0.5+0.05V）m/s ±5° ±4% ±3% or 1%F.S	≦±0.3℃ ≦±3%RH （@25℃ ≦±0.3hPa） ±（0.5+0.05V）m/s ，±5° ±（10+10%）ug/m³ ， ±（10+10%）ug/m³ ，±1.5dB	≦±0.3℃ ≦±3%R ≦±0.3hPa ±0.5+0.05Vm/s ±5° ±10+10%ug/m³ ±10+10%ug/m³ ±1.5dB 3%/±5% ±4%
Resolution	0.01℃ 0.01%RH 1ug/m³ 1ug/m³ 0.1dB 10Lux	0.01℃ 0.01%RH 0.1hPa 0.01m/s 0.1° 0.2mm 10LUX	0.01℃ 0.01%RH 0.1hPa 0.01m/s 0.1° 1ug/m³ 1ug/m³ 0.1dB	0.01℃,0.01%RH， 0.1hPa,0.01m/s 0.1°,1ug/m³，1ug/m³ ,0.1dB，10LUX,1W 0.2mm
Output	RS485(MODBUS-RTU),SDI-12(Need to add modules)			
Power Supply	DC9-24V			
Product Size (mm)	112*147	116*260	116*237	116*286

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-20B	Combined Wind Speed & Direction	RS485 4-20MA 0-5V 0-10V	Integrated wind speed and direction
CDF-21A	Ultrasonic Wind Speed & Direction	RS232/RS485(Modbus/NMEA-0183), Voltage(0-5V),Current(4-20mA) optional	Ultrasonic principle
CDW-33A	Atmospheric Temperature,Humidity & Pressure	RS485	Shelter installation
CDQ-T6A	Miniature Ultrasonic Automatic Weather	RS485	Wind speed & direction temp & humidity &pressure
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
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 Weather Instrument	RS485	Wind speed%direction 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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Hunan Coda Electronic Tech Co.,Ltd

T:+86-0731-85117089 W:www.codasensor.com E:Molly@codasensor.com