

OVERVIEW

CDQ-T6A miniature ultrasonic weather station is a fully digital detection, high-precision sensor, which is integrated by the principle of ultrasonic wind speed and direction sensor, high-precision digital temperature, humidity, pressure sensor, can accurately and quickly detect wind speed, wind direction, atmospheric temperature, atmospheric humidity and Atmospheric pressure, built-in signal processing unit can output corresponding signals according to user needs, high-strength structure design can work reliably in harsh climate environment, can be widely used in meteorology, ocean, environment, airport, port, laboratory, industry, agriculture and transportation, etc.



BENEFITS AND FEATURES

- High accuracy, fast response
- Easy to install, all-weather measurement
- RS485
- High-strength structural design

APPLICATIONS

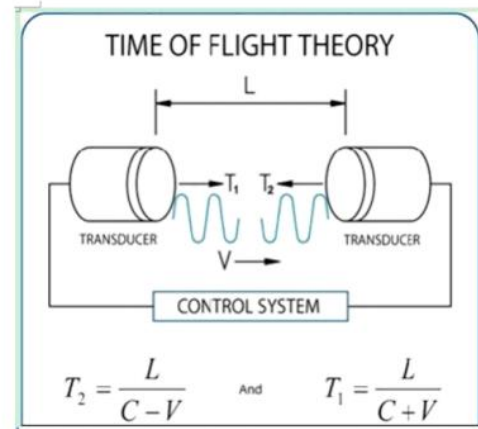
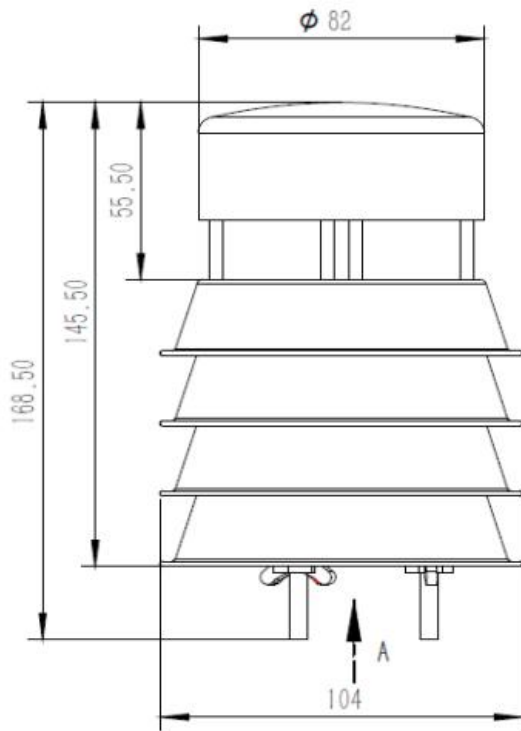
- Environmental monitoring
- Sea-going vessel
- Bridge & Tunnel
- Solar and wind power generation
- Wind resource assessment
- Drilling platform
- Automatic weather station
- Agriculture

TECHNICAL DESCRIPTION

Measure item	Principle	Range	Resolution	Accuracy
Wind speed	Ultrasonic	0-40m/s	0.01m/s	±0.5+2%FS
Wind direction	Ultrasonic	0-359°	1°	±3°
Atmospheric temperature	MEMS	-40-+100°C	0.1°C	±0.5°C
Atmospheric humidity	MEMS	0-100%RH	0.1%RH	±3%
Supply	12-24VDC			
Output	RS485			
Communication Protocol	Modbus-rtu			
Power consumption	0.6W			
Operating temperature	-40-+80°C			
IP Rating	IP65			
Main material	ABS+ Aluminum alloy			

DIMENSION

Unit:mm



Therefore

$$V = \frac{L}{2} \left\{ \frac{1}{T_1} - \frac{1}{T_2} \right\} \quad C = \frac{L}{2} \left\{ \frac{1}{T_1} + \frac{1}{T_2} \right\}$$

KEY

- L = Distance between transducer faces
- C = Speed of sound
- V = Velocity of gas flow
- T1 = Transit time of ultrasound
- T2 = Transit time of ultrasound

ORDERING STRING

Remark	Series	Type	Supply	Output	Communication Protocol	Measure parameters	
CT							
	Q						
		T6A					
			A				12-24VDC
			X				Other
				A			RS232
				B			RS485
				C			SDI-12
					A		Modbus-rtu(default)
					B		NMEA-0183
					C		SDI-12
					X		Other
						M5	Wind speed, wind direction temperature & humidity air pressure
						M6	Wind speed, wind direction temperature & humidity air pressure, rainfall
						X	Customized ^①

① Wind speed and direction are necessary, and other parameters can be combined freely

