



CDW-24A HVAC Temperature & Humidity Sensor

For weather automation applications



Features

- High Sensitivity
- Low temperature Drift
- Wide working temperature range
- Light construction
- Internal auto compensation
- Temperature compensation
- Strong anti-interference ability
- Easy installation

CDW-24A HVAC Temperature & Humidity Sensor is a professional measurement of air temperature & relative humidity. Sensors are built-in the water-proof and dust-proof shelter. It is widely used in HVAC, storage and environment monitoring field.

Typical installation locations

- HVAC
- Air conditioning system
- Pipe ventilation system
- Environmental monitoring

Design structure

In the design of pipeline temperature and humidity sensors, the temperature sensor and humidity sensor are usually integrated together, and the temperature and humidity signals are converted into electrical signals through appropriate circuit design and signal processing. These electrical signals can be transmitted wired or wirelessly to a monitoring system or control device for real-time monitoring and control.

Easy installation

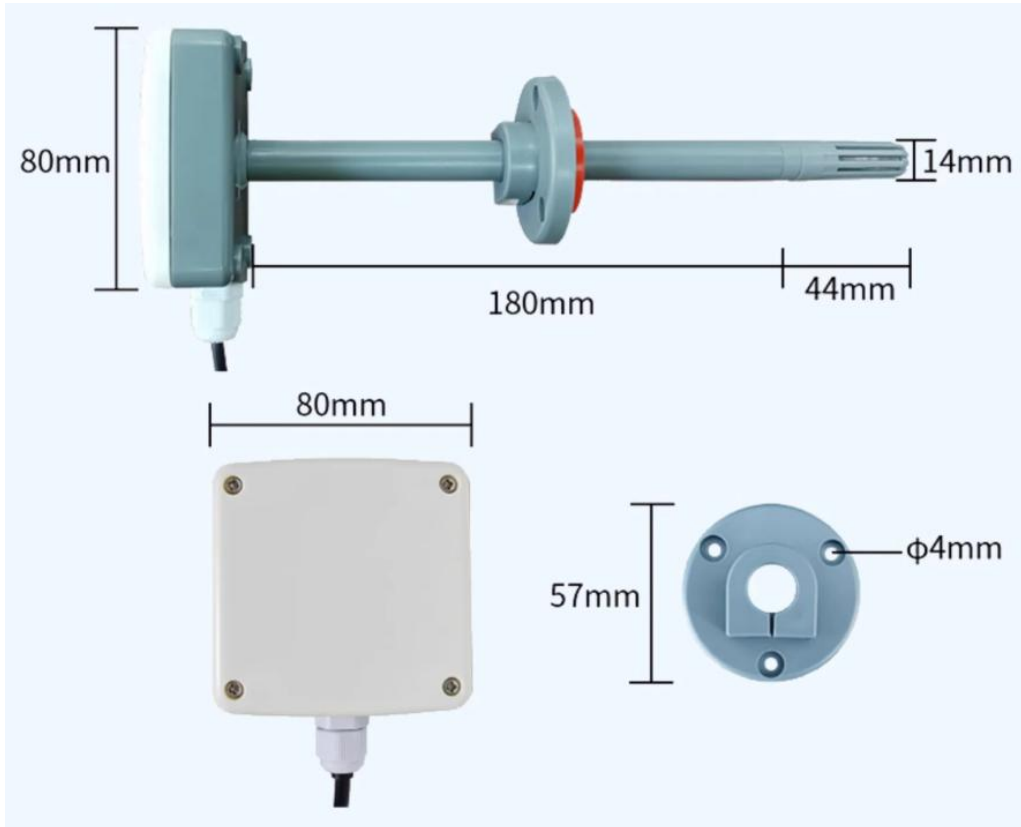
Installation should be performed at a location in the pipeline that is representative of the overall temperature and humidity condition. In general, you can choose in the middle of the pipeline or near the main air flow area. This ensures that the measured temperature and humidity data is more representative. Keep away from interference sources that may affect the accuracy of temperature and humidity measurements, such as heat sources, cold sources, air tuyere, and direct sunlight. For example, do not install on pipes near heating pipes, air conditioning outlets, Windows, or walls in direct sunlight.

Reliable operation

Precision manufacturing processes, such as microelectromechanical systems (MEMS) technology, can improve the accuracy and reliability of sensors. Strict quality control processes, including comprehensive testing and calibration of each sensor, ensure that it meets the relevant technical standards and performance requirements.

Dimensions & installing

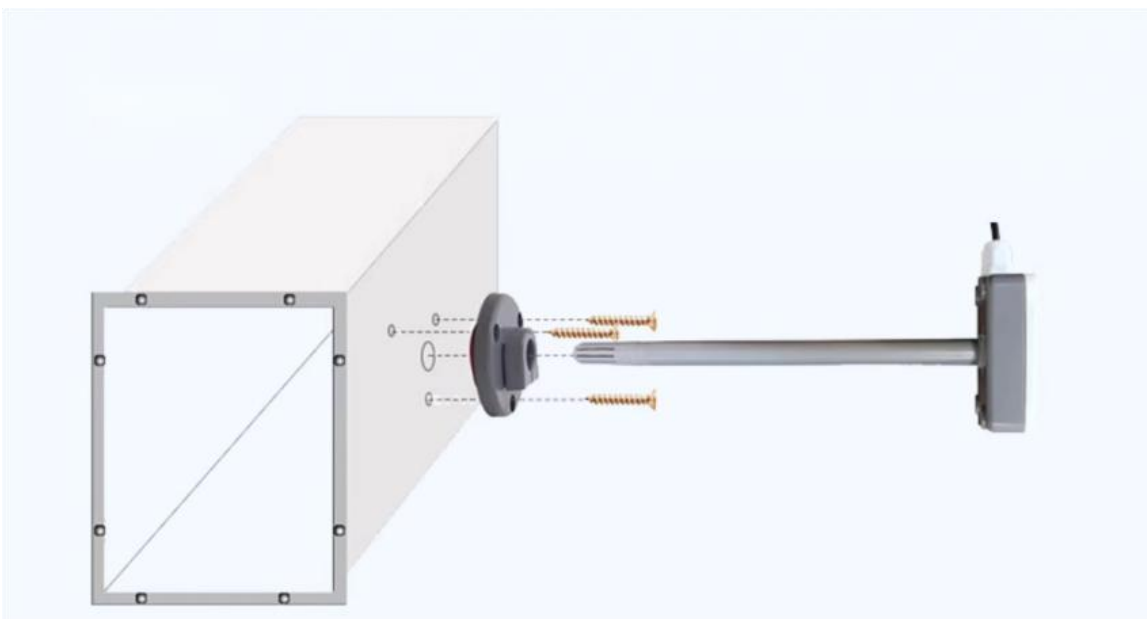
CDW-24A connector dimension



Installing

1. For flange connection, align the flange of the sensor with the flange on the pipe, and fix the two flanges together using bolts. Pay attention to the sequence and force of tightening bolts to ensure tight connection.

2. Clamp connection, put the sensor into the clamp, then put the clamp on the pipe, tighten the bolt on the clamp, so that the sensor is fixed on the pipe.



Technical data

Measurement performance, models CDW - 24 A

Technical Specification

Item	Temperature	Humidity
Range	-30-70°C (intermediate range is optional)Ⓞ	0-100%RH
Accuracy	±0.2°C	±2%RH, ±3%RH, ±5%RH
Supply	12-24VDC	
Output Signal	4-20mA, 0-5V, 0-10V, RS485 MODBUS(RTU)	
Power Consumption	Current output: ≤0.48W, Voltage output: ≤0.2W, Digital output: ≤0.36W	
Load Characteristic	Current output: $R_L \leq (U_s - 7)/0.02\Omega$, Voltage output: $R_L \geq 100k\Omega$	
Operating Temperature	-40°C ~ +80°C	
Ingress Protection	IP65	
Storage	10-60°C @ 20%-90%RH	

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
CDG-10B	Solar radiation	0-5V, 4-20mA, RS485	Spectral range: 300~1100nm
CDG-14A	Illuminance sensor	0-5V 0-10V 4-20mA RS485	Spectral range: 380~780nm
CDY-12A	Economical Tipping Bucket Rainfall	Pulses(@10kΩ&0.01uF), RS485	Diameter :φ200mm, height: 271mm
CDW-10A	Wall-mounted Barometric Pressure	RS485, 4-20mA, 0-5V, 0-10V	Barometric range 600-1100hPa(mbar)
CDW-12A	CO2 sensor	4-20mA, 0-5V, RS485	Range 0-2000ppm, 0-5000ppm, 0-10000ppm
CDW-13B	Noise sensor	RS485	Range 30-130dB
CDW-14A	Paste Type Temperature	PT100 PT1000 RS485	Range -50~+100°C, -20~+50°C
CDW-21A	Dust sensor	RS485 4-20mA, 0-5V, 0-10V	PM1.0, PM2.5, PM10
CDW-22A	Leaf Wetness	4-20mA, 0-5V, 0-2V, RS485	Wetness: 0-100% Temperature: -40~+80°C
CDW-33A	Atmospheric Temperature, Humidity & Pressure	RS485	Shelter installation
CDW-15A	O2 Concentration	4-20mA, 0-5V, 0-10V, RS485	Range 0-30%
CDW-16A	SO2 Concentration	4-20mA, 0-5V, 0-10V, RS485	Range 0-20PPM 0-2000PPM
CDW-17A	NH3 Concentration	4-20mA, 0-5V, 0-10V, RS485	Range 0-100PPM 0-1000PPM 0-5000PPM
CDW-18A	H2S Concentration	4-20mA, 0-5V, 0-10V, RS485	Range 0-100PPM 0-1000PPM
CDW-19A	CO Concentration	4-20mA, 0-5V, 0-10V, RS485	Range 0-1000PPM 0-2000PPM
CDW-1T0	Visibility sensor	RS485	Range 0-10Km/0-20Km/0-30Km
CDW-1TX	Multi-in-one gas Sensor	RS485	Multi-parameter integration

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Hunan Coda Electronic Tech Co., Ltd

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