



CDW-15A O2 Sensor

For weather automation applications



Features

- High Sensitivity
- Low temperature Drift
- LED display optional
- Light construction
- Internal auto compensation
- Temperature compensation
- React quickly to Oxygen changes and output corresponding signals
- It can resist external interference and ensure the accuracy of measurement

Electrochemical oxygen sensors are widely used in many fields due to their advantages of fast response speed, high precision and good stability. It measures the amount of oxygen by a chemical reaction between an oxygen-sensitive electrode and oxygen molecules, creating a change in electric current or potential. This sensor plays an important role in medical devices, such as ventilators and anesthesia machines, which can monitor the oxygen content of the patient's breathing gas in real time to ensure the safety of the patient's life. In industrial production, it can also provide accurate data for combustion control, improve combustion efficiency, and reduce pollutant emissions.

Typical installation locations

- Environmental monitoring
- Livestock farm
- Greenhouse
- Agriculture

Design structure

Oxygen sensors are usually based on electrochemical principles. Its core component is an oxygen-sensitive electrode, and when oxygen molecules come into contact with the electrode, a chemical reaction occurs, creating a change in electric current or potential. By measuring this change, the amount of oxygen in the environment can be determined.

Easy installation

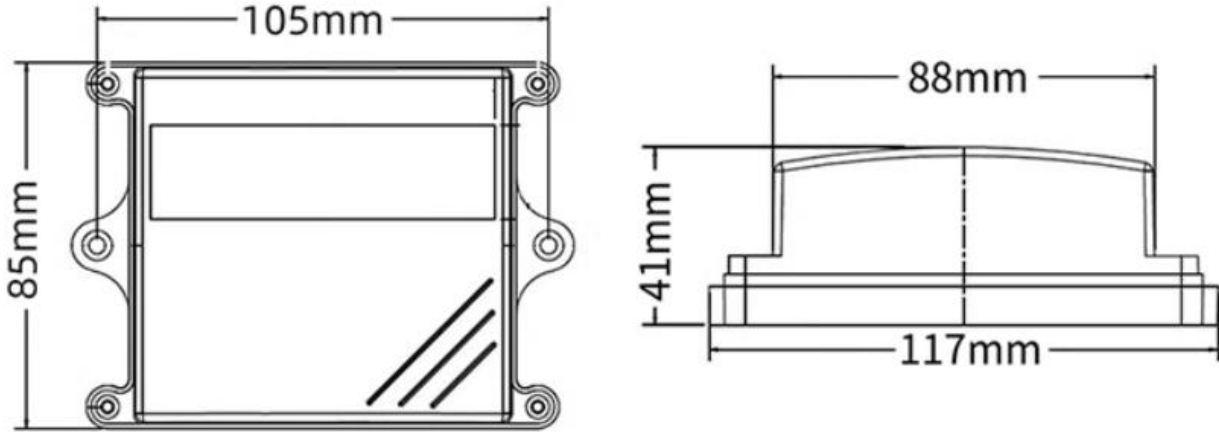
There should be sufficient space around the installation location to install and remove the sensor. Avoid choosing a narrow and crowded space to prevent difficulties caused by insufficient operation space during maintenance. It should be mounted as horizontally as possible to ensure that the sensor can accurately measure atmospheric Oxygen. If the installation is tilted, it may cause measurement errors.

Reliable operation

Electrochemical oxygen sensors usually have high accuracy and stability. Environmental factors such as temperature, humidity and pressure will affect the reliability of oxygen sensors. High or low temperature and humidity may cause degradation or damage to the sensor performance.

Dimensions & display

CDW-15A connector dimension



Multiple display

1. You can optionally add **temperature** and **humidity** parameters to the sensor.
2. You can choose LED or LCD screen display.



Technical data

Measurement performance, models CDW - 15 A

Item	Technical Specification
Range(concentration)	0-30%VOL
Accuracy	±2%F.S(25℃)
Supply	12-24VDC 7-24VDC
Output	4-20mA,0-2V,0-5V,0-10V,RS485
Power Consumption	<0.25W
Warm Up Time	3min
Response Time	<15s
Temperature Drift	≤0.2%FS/℃
Repeatability	<±1%FS
Operating Temperature	-20℃-+60℃@15-80%RH
Storage	-40-70℃@20%-90%RH
Shell Material	ABS

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℃, -20-+50℃
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℃
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