CDT-1T5B Dissolved CO2

For weather automation applications

Features

- On-line & real-time monitoring
- With temperature compensation
- High accuracy
- Simple operation and high reliability
- Fast response
- Multiple output signal is optional
- Probe can be used under water
- Strong in corrosion resistance
- Infrared Absorption Principle
- Fast Gas Convection and Diffusion

CDT-1T5B is a gas detection module based on NDIR infrared absorption principle.Suitable for Detecting Carbon Dioxide Concentration in Aqueous SolutionOptical Cavity with Patent Design (ZL 2014 2 0356666.6) The imported light source and dual-channel detector realize the spatial double-path reference compensation. It has good selectivity, oxygen-free dependence and long life.

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Typical installation locations

- Environmental protection
- Agriculture
- Water conservancy
- Industrial wastewater treatment

Design structure

The CO_2 content in water was measured by optical sensor. The optical method usually uses a light source of a specific wavelength to determine the CO_2 concentration by measuring the degree of absorption or scattering of light in water. This method has the advantages of fast response speed and high precision.

Easy installation

The sensor is installed in a position where the water flow is relatively rapid and the temperature changes are minimal to ensure the accuracy of the measurement data. For example, when installing in the pipeline, you can choose a straight pipe section and away from the elbow, valve and other parts; When installing in a pool or sink, avoid installing in a corner or dead water corner. At the same time, consideration should be given to facilitate future maintenance and calibration operations.

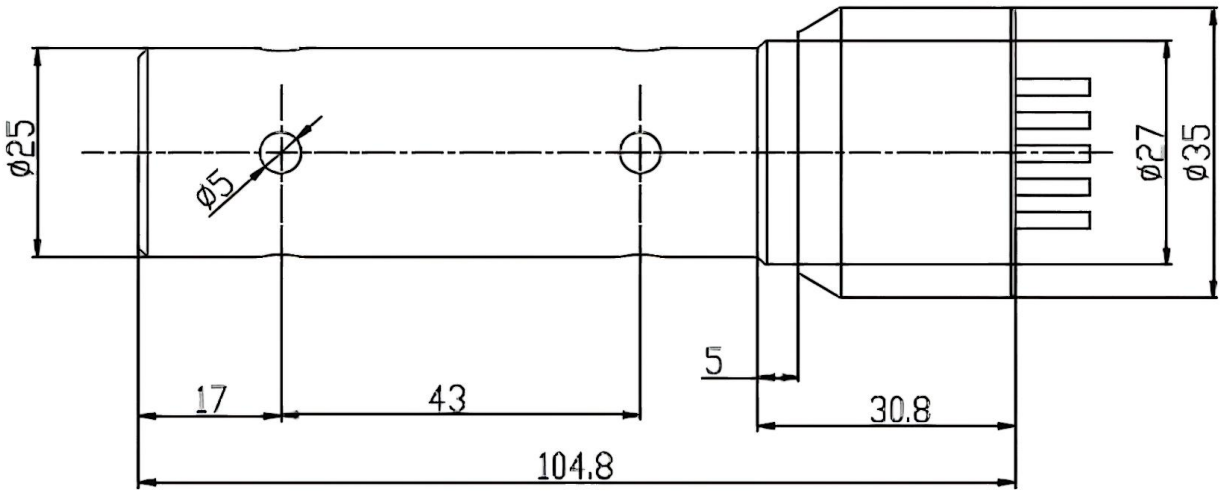
Avoid direct sunlight and dusty environments, and there can be no strong vibration and electromagnetic interference around, in order to prevent affecting the performance and measurement accuracy of the sensor.

Reliable operation

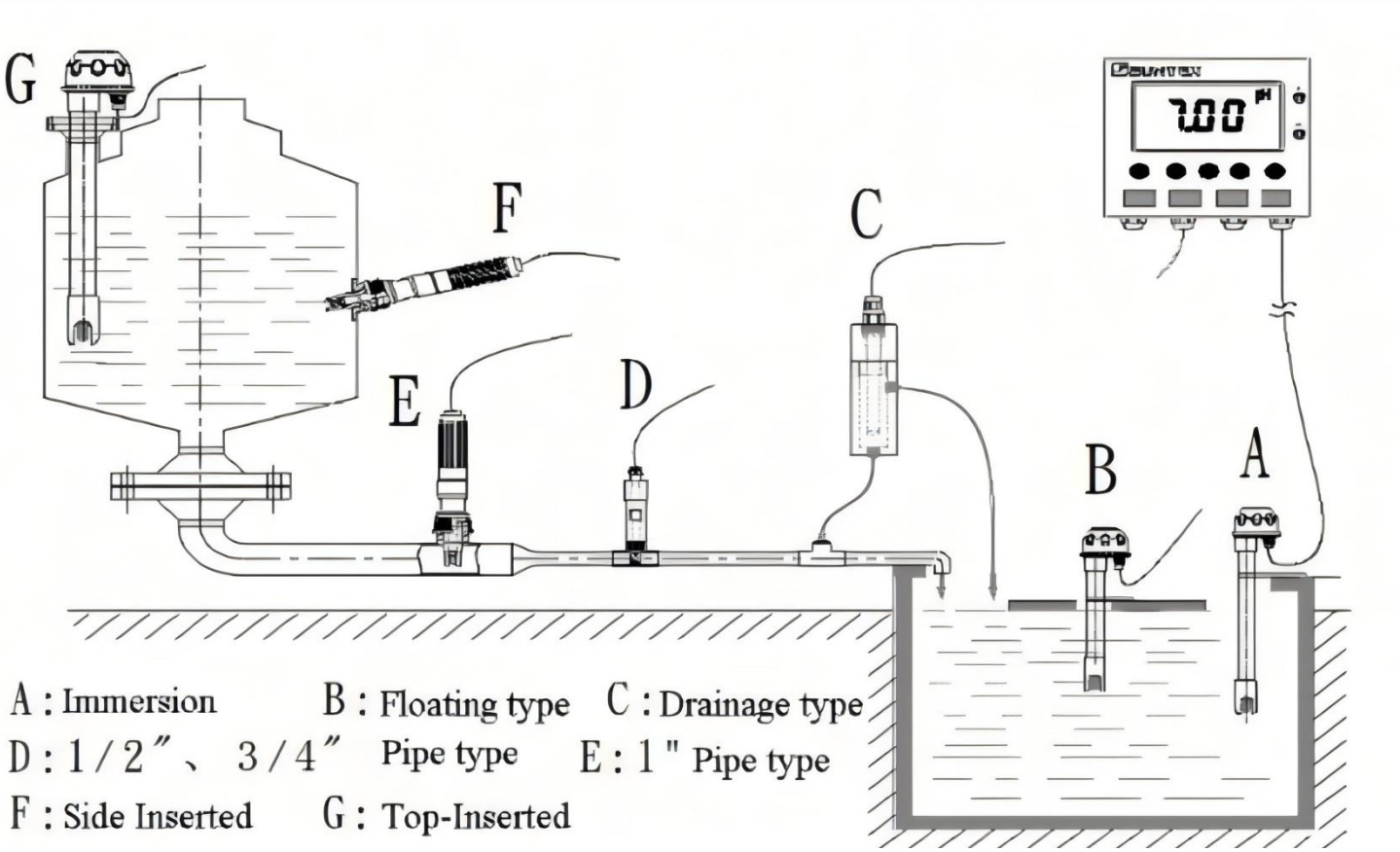
The correct installation position and method are critical to the reliability of the sensor. Choose a location that accurately reflects the CO_2 content value of the solution to be tested for installation, and avoid installation in places where there are bubbles, sediments or other disturbing factors. At the same time, when installing, ensure that the contact between the sensor and the tested solution is good to avoid leakage or loosening.

Dimensions

CDT-1T5B connector dimension



Installing



Technical data

Measurement performance, models CDT-1T5B

Items	Specification
Power supply	5VDC(4.5-5.5VDC)
Measuring range	0-2000ppm
Resolution	1ppm
Accuracy	±20ppm
Preheating time	90s
Output signal	RS232/RS485/UART/0-3.3V
Working current	50mA
Operating Temperature	0℃-+90℃
Storage Condition	10℃-50℃@10%-90%RH
MTBF	≥30000 hours

Model number	Type	Output	Special features
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
CDT-11A	PH sensor	0-2V 0-5V 4-20mA RS485	Probe: Φ28*160mm
CDT-12A	DO sensor	RS485 4-20mA	Range 0-20mg/L(ppm)
CDT-12B	DO sensor(calibrable)	RS485 4-20mA	Range 0-20mg/L(ppm)
CDT-14A	ORP sensor	RS485 4-20mA	Range -1500mV-+1500mV
CDT-15A	Suspended Matter	RS485	Range 0-200mg/L,0-1000mg/L,0-5000mg/L
CDT-17B	Soil PH sensor	RS485 4-20mA	Probe material:304SS
CDT-19B	Turbidity (SS) sensor	RS485 4-20mA	Wavelength of falling radiation：860nm
CDT-21B	Solil EC_salinity	RS485 4-20mA	Probe material:316L
CDT-22B	Soil Moisture & Temperature	4-20mA ,0-5V,0-2V,RS485 optional	Probe material:316L
CDT-30B	Soil Moisture,Temperature & EC	RS485,0-2V	316L stainless steel
CDT-70B	Soil 7 in 1 Sensor	RS485	Soil Moisture,Temperature & EC & PH & NPK
CDT-1T2B	Seismic Detection Wave	0-20mV RS485	Natural Frequency(Hz):10±2.5%
CDT-1T3B	Soil layers temperature&moisture	RS485	Range 0-100℃ 0-70%
CDT-1T4B	TDS Sensor	RS485 4-20mA	Range 0-2000ppm
CDT-1T5B	Dissolved CO2 Sensor	RS485	Range 0-2000ppm
CDT-1T6B	Residual Chlorine	RS485	Range 2mg/L,8mg/L,20mg/L
CDT-N0C	Multi-parameter water quality Sensor	RS485	Multi-parameter integration

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