



# CDT-19B Turbidity (SS) Sensor

## For weather automation applications



### Features

- On-line & real-time monitoring
- With temperature compensation
- High accuracy
- Simple operation and high reliability
- External module is converted into a standard signal output
- Multiple output signal is optional
- Probe can be used under water
- Measurement of scattered and attenuated radiation

CDT-19B Turbidity sensor is an instrument which uses optical principle to measure the degree of turbidity of water. Turbidity is caused by suspended particles in water. The suspended particles reflect the incident light. Usually, the scattered light in the direction of 90° is used as the test signal, so the unit tested is called NTU. This method is suitable for testing low to medium range, ranging from 0.01 to 1000NTU. According to EN27027 and ISO7027 standards, infrared light of 860 nm is used as light source, which can not be disturbed by the chromaticity of samples.

### Typical installation locations

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

### Design structure

When a beam of light passes through a sample of water containing suspended particles, the particles scatter the light. The intensity of the scattered light is related to the concentration and size of the suspended particles, and the turbidity of the water sample can be determined by measuring the intensity of the scattered light at a specific Angle.

### 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.

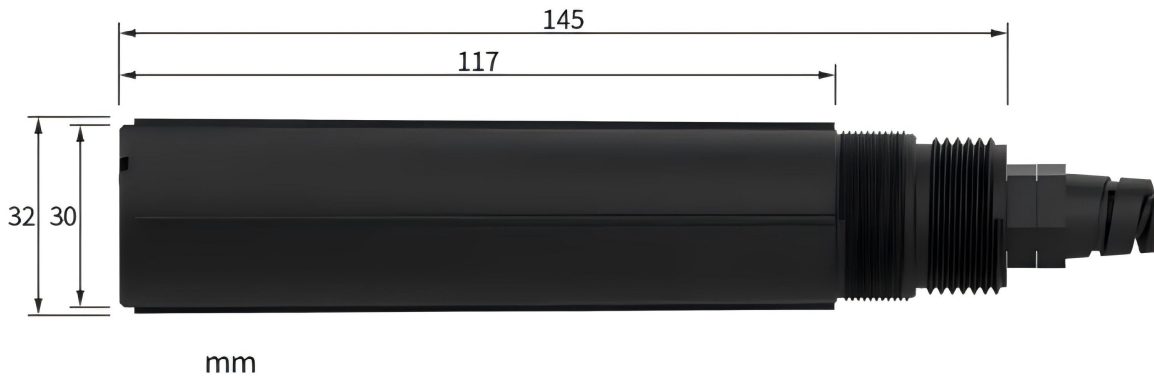
Avoid direct sunlight and dusty environments, and there can be no strong vibration and electromagnetic interference around, in order to prevent affecting the performance and measurement accuracy of the sensor.

### Reliable operation

The correct installation position and method are critical to the reliability of the sensor. Choose a location that accurately reflects the turbidity 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-19B connector dimension

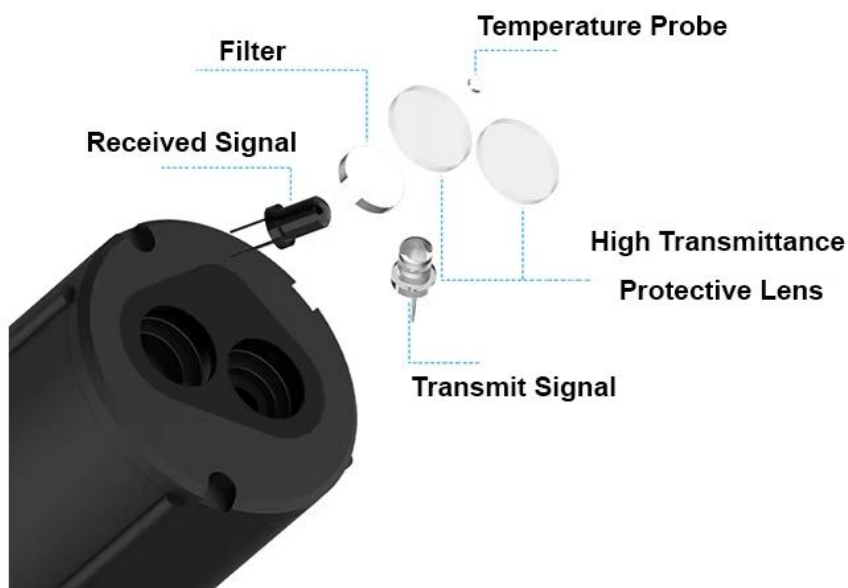


**Fixed support,**  
can be used with pipes



**Portable control box,**  
real-time online LCD display data

## Product structure



# Technical data

## Measurement performance, models CDT - 19 B

Item	Technical Specification
Range	0-1000NTU
Accuracy	±3%FS
Resolution	0.01NTU
Supply	12-24VDC
Output	RS485 4-20mA
Pressure resistance	<0.4MPa
Measuring principle	optical
Power consumption	<0.2W
Operating temperature	0-+60℃
Wavelength of falling radiation	860nm
Spectral band width	<60nm

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
CDW-33A	Atmospheric Temperature, Humidity & Pressure	RS485	Shelter installation
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	Soil 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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