Datasheet

COD Electrode

SUP-ADS2000

Supmea®

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SUP-ADS2000

Self-cleaning COD sensor is based on the UV absorption principle, does not need reagents, will not cause pollution, more environmental protection; Integrated self-cleaning brush, easy to install and use, even long-term online monitoring still has excellent stability.

Applications

- Domestic sewage
- Plastics industry
- Surface water
- Underground pipe networks
- Food & Pharmaceuticals
- Aquaculture water

COD Electrode

Features

- Digital RS-485 output, Modbus protocol
- Proven UVC LED technology, long lifetime, stable and instant measurement
- Measurement of parameters such as COD, TOC, turbidity and temperature
- With self-cleaning brushes to prevent biological adhesion and longer maintenance intervals

Principle

The COD electrode measures organic compound concentration in water by converting a redox reaction with copper ions into an electrical signal.

Parameters			
Light source	Imported UV254nm LED，550nm turbidity compensation	Imported UV254nm LED，550nm turbidity compensation	UV275nm LED，550nm turbidity compensation
COD Range	0.5 to 500mg/L equiv.KHP	0.5 to 1500mg/L equiv.KHP	0.5 to 500mg/L equiv.KHP
COD Accuracy	±5% equiv.KHP		
COD Resolution	0.01mg/L		
Turbidity Range	0-500 NTU		
Temperature Range	0~50℃		
Housing IP Rating	IP68		
Maximum pressure	3 bar		
Calibration	One-point or Two-points Calibration		
Power	DC 12~24V、≥1A		

Wiring

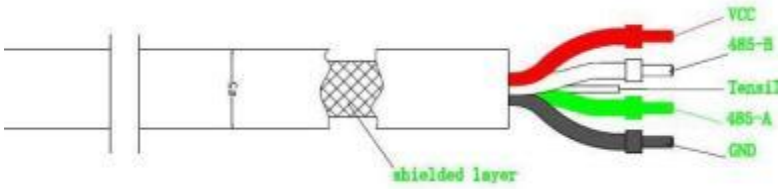
Warning

1.Please install the protective mesh cover correctly. 2.Do not use the sensor cable to lift the sensor.

3.Do not cover the measuring surface with lifting accessories.

4 Electrical connection

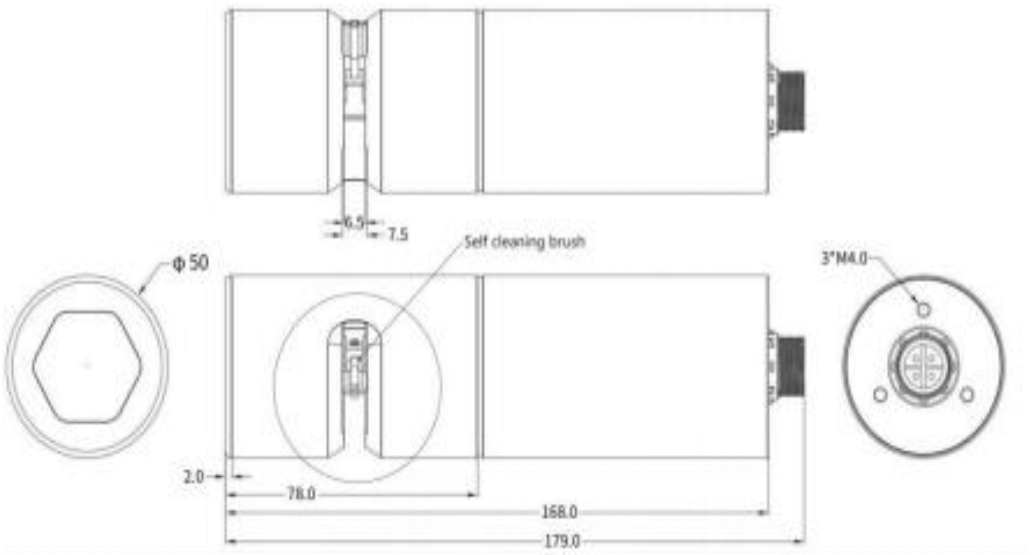
4 wire AWG-24 OR AWG-26 shielding wire. OD=5.5mm



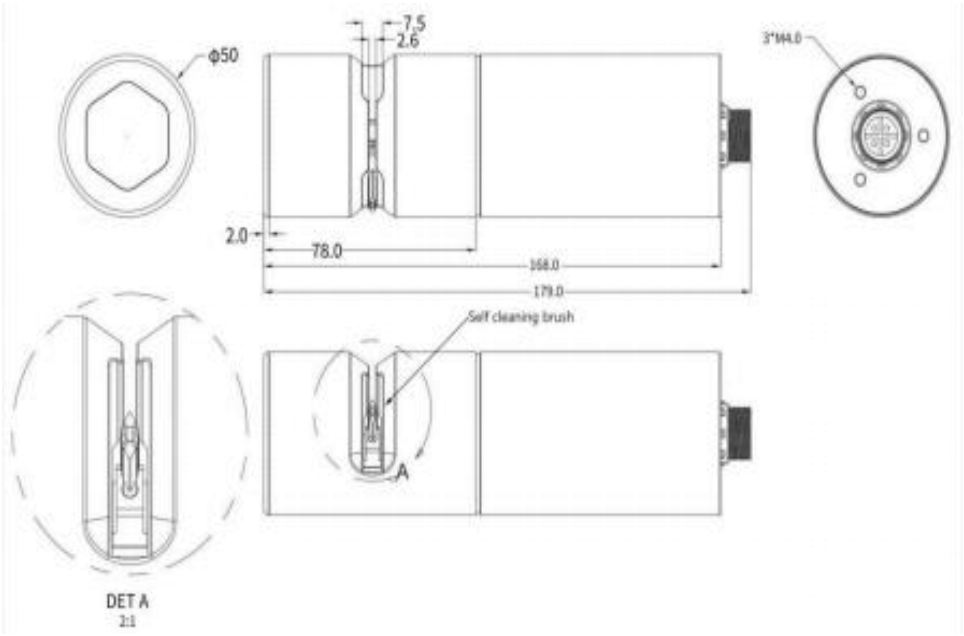
1, Red—Power (VCC)
2, White—485 Date_B (485_B)
3, Green—485 Date_A (485_A)
4, Black—Ground (GND)
5, Bare wire—shield

Dimension

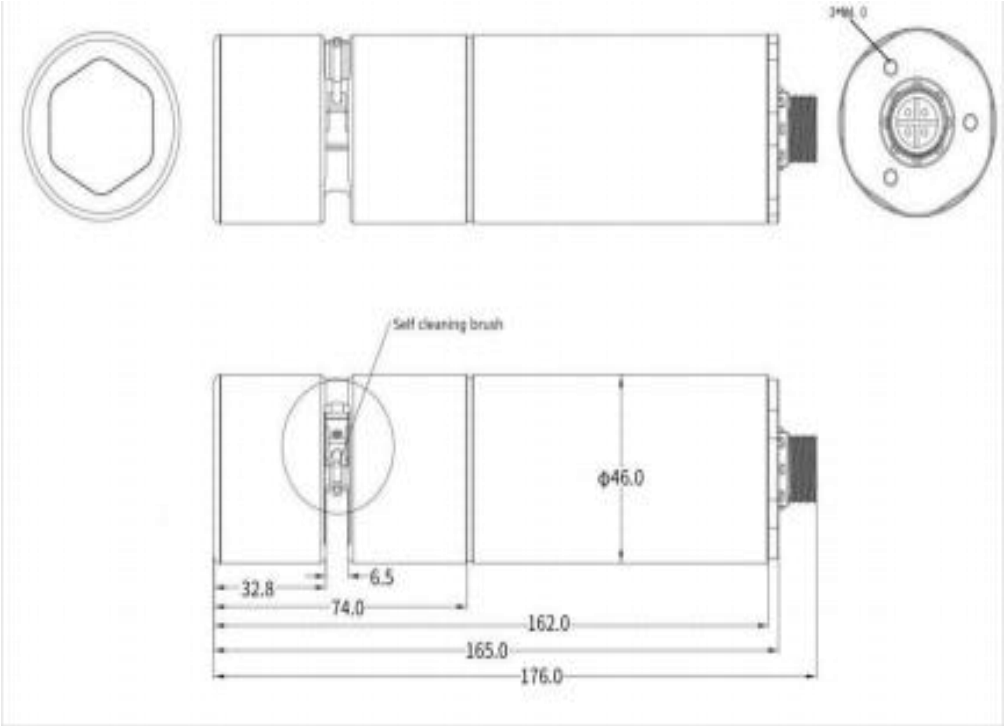
Regular small range type



Regular large range type



Economical type



Installation

Installation

Configuration

Item	Number	Unit	Note
COD Sensor	1	pcs	Including lifting sheet metal and holding hoop
Metal protective cover	1	pcs	
Cables	1	pcs	
Brush component	1	group	

Installation precautions

①The sensor shall be installed vertically with the sensor facing down, avoid horizontally installation or with sensor face upward.

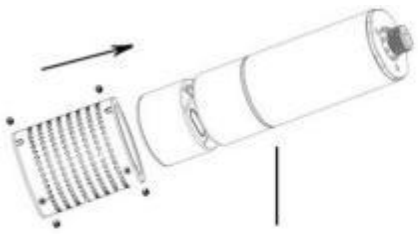
② Considering the influence of water level, the sensor is recommended to be installed under water surface level of 30cm. Probe shall be fully submerged into water.

③ The sensor must be securely mounted to avoid any damage caused by water flow and other unknown factors.

Installation steps

(1) Protective cover installation:

After unpacking of the sensor, install a protective probe cover onto the sensor, as shown in the figure below (4 screws on the cover shall be tightened).



Loose 4 screws on the protection cover, and then slid the cover on the sensor gap.

Tighten the screws to complete installation

(2) Fixed installation on site：

It is suggested to carry out a fixed installation in the following two ways as shown in Fig.4 and Fig.5. Elbow installation in Fig.4 is good for environment with no rapid water flow and less debris.

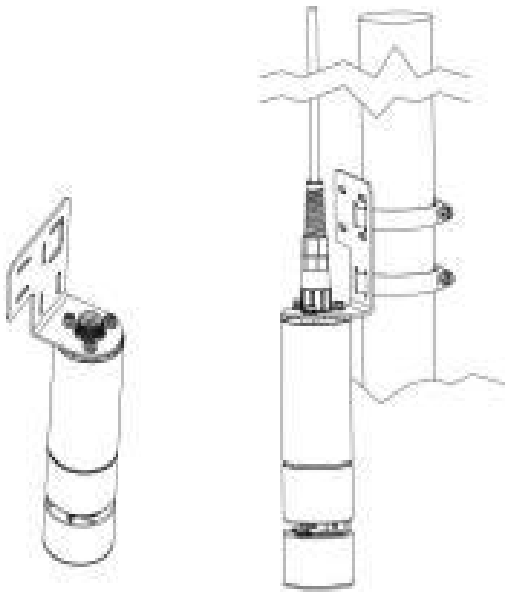


Fig .4

Fig.5 is an illustration for plate installation, which provide a stable installation in rapid water

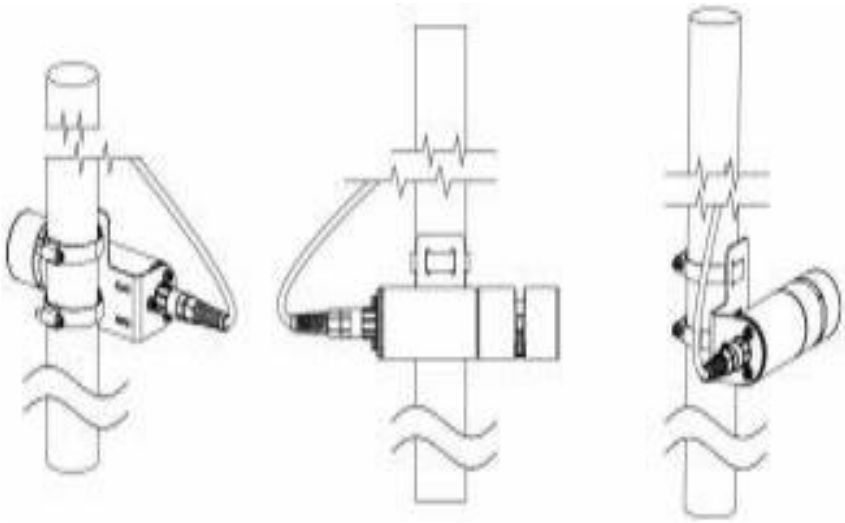


Fig.5

Ordering code

SUP-ADS2000 -A-A-B-10-M3						Description
SUP-ADS2000	-	-	-	-	-	
Electrode Type	A					(0-500) mg/L，Light Source UV275nm LED
	B					(0-500) mg/L，Imported Light Source UV254nm LED
	C					(0-1500) mg/L，Imported Light Source UV254nm LED
Output		A				RS485
Power Supply			B			12VDC
Cable Length				10		10m
				20		20m
				30		30m
				XX		Others
Housing Material					M3	316LSS
					T1	Ti