



RK500-25 COD Sensor

Overview

Most organic substances dissolved in water is absorbent to ultraviolet light. Therefore, the content of dissolved organic pollutants in water can be accurately measured by measuring the extent to which these organics absorb UV light at 254nm. The RK500-25 COD sensor adopts two light sources, one is ultraviolet light for measuring COD content in water and the other is reference light for measuring turbidity in water. The optical path attenuation is compensated by a specific algorithm, which can eliminate the interference of particulate suspended matter impurities on the measurement results to a certain extent, thus making the measurement results more stable and reliable.

Features

No reagent required, no pollution, more economical and environmental friendly
Sapphire measurement window, not afraid of sand abrasion
Using advanced third-order curve method to ensure measurement accuracy
Equipped with cleaning brush, automatic cleaning, can prevent biological adhesion
Low drift, fast response and more accurate measurement
Excellent stability
Maintenance free, long service life and low cost
RS-485 interface, Modbus / RTU protocol

Applications

Environmental protection
Agriculture
Aquaculture
Water conservancy
Sewage treatment
Soil remediation

Technical Parameter

Item		Technical Specification
Measurement Principle		Dual wavelength 254nm and 550nm absorption method
Standard		DIN 38402 C2,DIN 38404 and HJ T191
Range	COD	0-500mg/L,0-1000mg/L
	Turbidity	0-200NTU
Accuracy		±5%F.S
Resolution		0.02mg/L
Supply		DC12-24V
Power consumption		When the cleaning brush is not working:<0.2W During cleaning brush operation: <1.5W
Cleaning brush		Automatic
Response time		<2s
Output signal		4-20mA&RS485



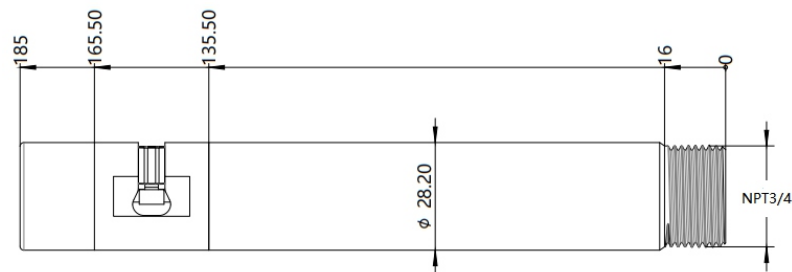
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Technical Parameter

Item	Technical Specification
Operating environment	-5-+60°C(<0.6MPa)
Cable length	5m(default), customizable
Probe material	316L stainless steel
Ingress protection	IP68
Storage	10-60°C@20%-90%RH

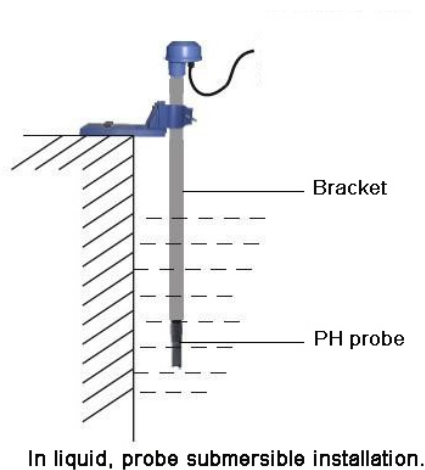
Dimension

Unit:mm



Installation And Fixed

Installation bracket (length=1m) NPT3/4 installation thread is optional





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Parameter Selection Table

Remark	Series	Type	Supply	Range	Accessory	Cable Length	
RK							
	500						
		25					
			A				12-24VDC
			X				Other
				A			0-500ppm
				B			0-1000ppm
				X			Other
					A		With mounting bracket
					N		Without any accessory
						5000	Unit(mm)
						...	Unit(mm)

Example: RK500-25AAN5000 Supply:12-24VDC, Range:0-500ppm, without any accessory, Cable length:5m.

Revision time	Reviser	Current Version	Remarks
20250715	Echo	V5.0	