

RK500-13 EC Sensor



Overview

RK500-13 EC Sensor uses advanced anti-polarization technology, internal signal isolation technology, and have strong anti-interference ability. Stable measurement, accurate, maintenance-free, easy to install. Mainly used in aquaculture, water source testing, sewage treatment, environmental monitoring and so on.

Features

- On-line & real-time measurement
- Graphite electrode and nylon fiber shell
- High accuracy
- Electromagnetic isolation
- Strong resistance to corrosion
- Polarization resistance
- High temperature resistance
- Integral design without external transmitter

Applications

- Environmental protection
- Aquaculture
- Water source monitoring
- Environmental monitoring
- Sewage treatment
- Oil and gas pipeline corrosion monitoring

Technical Parameter



D1

D2

D3

Type	A	B	C	D
	Economy	Conventional type	Strong anti-corrosion	Food grade
Main material	ABS shell+graphite electrode	Nylon fiber+316 electrode	Nylon fiber+graphite electrode	316L+PEEK
Screw thread	Bottom : NPT3/4		Upper: NPT3/4,Bottom: NPT3/4	NPT3/4(D1,D2)
Pressure Resistance	0.8MPa	1.0MPa	1.0MPa	2. 0MPa
Temperature Compensation	Automatic (Temperature 0-60℃)			Automatic (Temperature 0-100℃)

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Technical Parameter

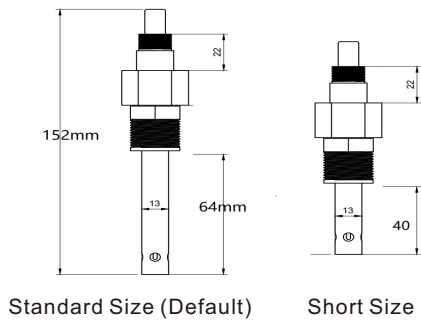
A		B	C	D
Output signal	4-20mA & RS485 at the same time			4-20mA & RS485 at the same time; 4~20mA(two-wire)
Supply	7-30VDC			7-30VDC, 22-28VDC(4~20mA two-wire)
Range EC	0~2000μs/cm, 0~5000μs/cm, 0~10000μs/cm, 0~20000μs/cm(any range of 0-300ms/cm can be customized, 1ms/cm = 1000μs/cm)			0~50μs/cm, 0~500μs/cm, 0~10000μs/cm, 0~20000μs/cm(any range of 0-300ms/cm can be customized)
Accuracy	±1%FS			
Resolution	0.01mS/cm			
Power consumption	<0.2W			
Principle	Frequency conversion method			
Response time	1s			
Drift	≤0.3%FS/24h			
Measurement environment	0-60℃ (High temperature electrodes can be customized)			
Ingress protection	IP68			
Storage	10-60℃@20%-90%RH			
Cable length	5m default, other length customizable			

Type	Application
A	Mild corrosion scenarios, pressure resistant to general environment
B	General freshwater testing, high pressure-resistant environment
C	Mariculture, strongly corrosive sewage, complex scenes etc
D	Food grade requirements, high temperature and high pressure environment

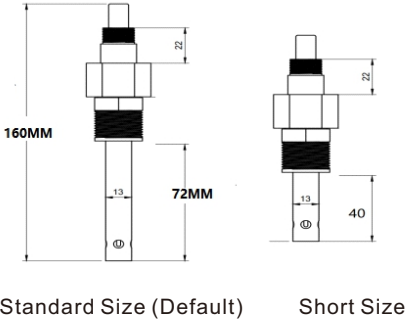
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Dimensions

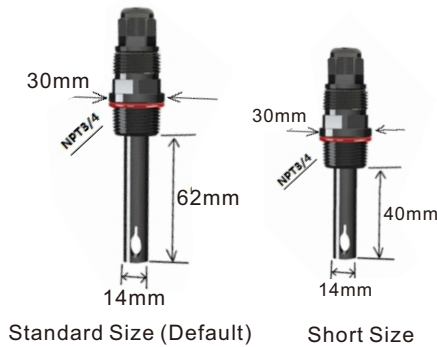
Unit:mm



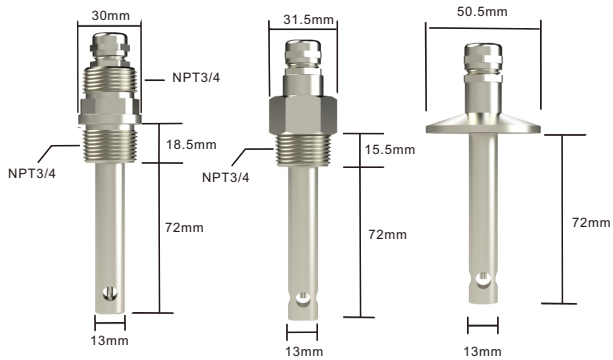
Type A



Type B



Type C

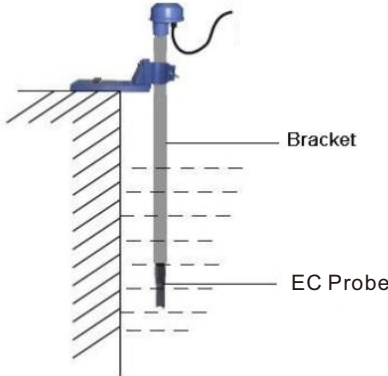


Type D

Installation & Usage

- Put directly into the liquid
- Adopt submersible mounting bracket (shown in the below figure)

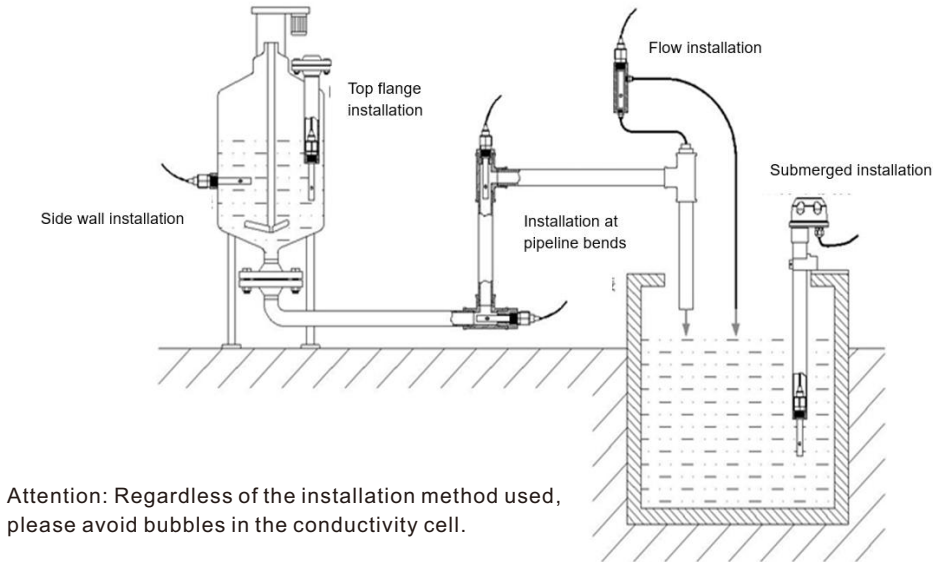
Mounting bracket (length=1m):



Probe immersion installation

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Installation & Usage



Parameter Selection Table

Remark	Series	Type	Supply	Output	Accessory	Cable Length	
RK							
	500-13						
		A					Economy
		B					Conventional type
		C					Strong anti-corrosion
		D1-D3					Food grade
			A				7-30VDC
			X				Other
				A			4-20mA & RS485
				B			RS485
				C			4-20mA
					A		With mounting bracket
					N		Without mounting bracket
						5000	Unit(mm)
						...	Unit(mm)

Example: RK500-13BAAN5000 Conventional type, Supply:7-30V, Output: 4-20mA & RS485, Without any accessory, Cable length:5m.

Revision time	Reviser	Current Version	Remarks
20250425	Lee	V5.0	