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

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℃)

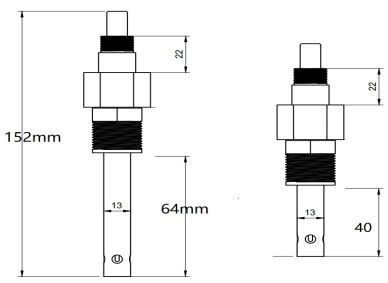
Technical Parameter

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

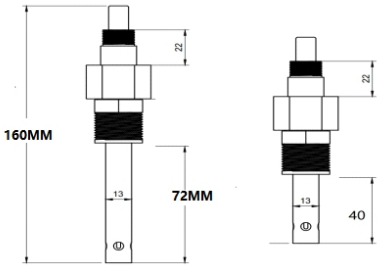
Dimensions

Unit:mm



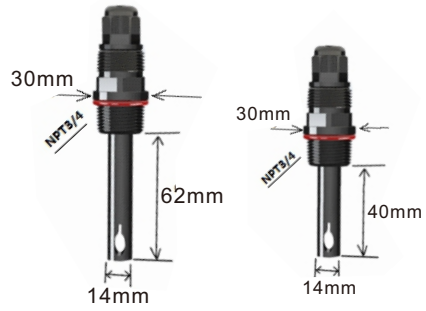
Standard Size (Default) Short Size

Type A



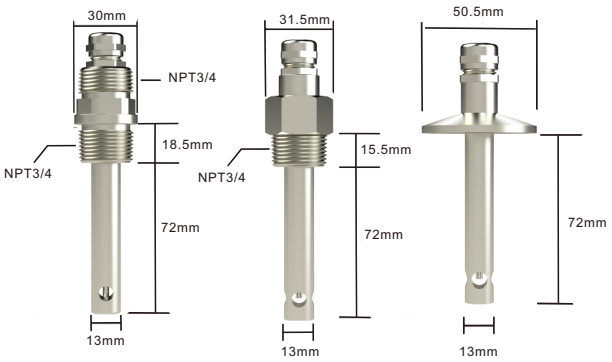
Standard Size (Default) Short Size

Type B



Standard Size (Default) Short Size

Type C

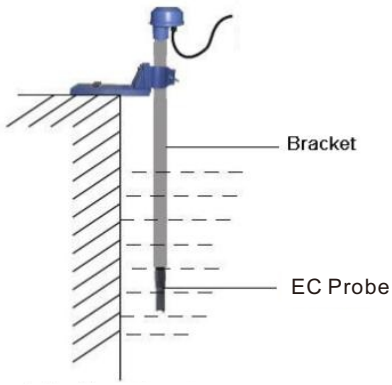


Type D

Installation & Usage

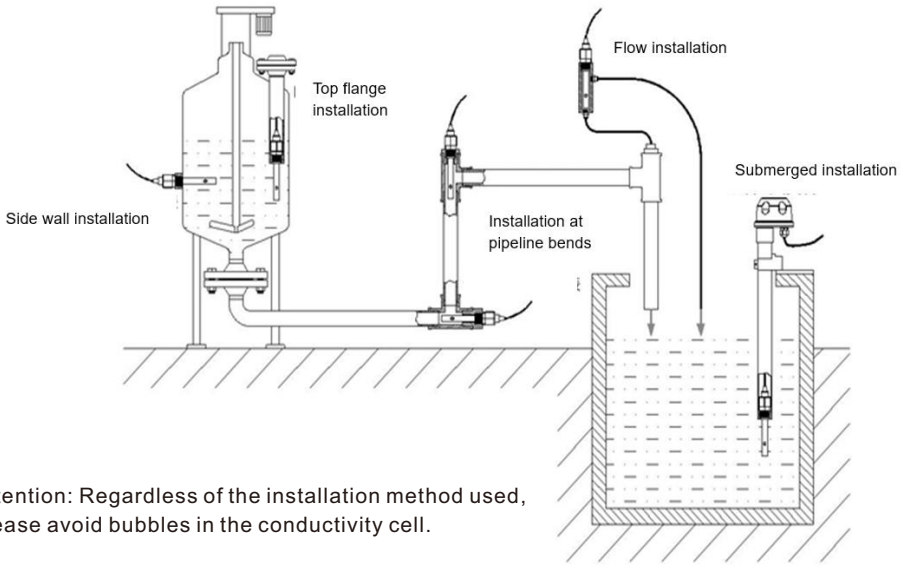
- Put directly into the liquid
- Adopt submersible mounting bracket（show in the below figure)

Mounting bracket（length=1m):



Probe immersion installation

Installation & Usage



Attention: Regardless of the installation method used, please avoid bubbles in the conductivity cell.

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	