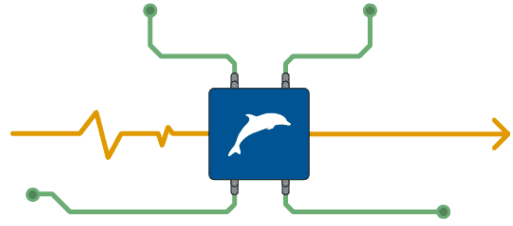
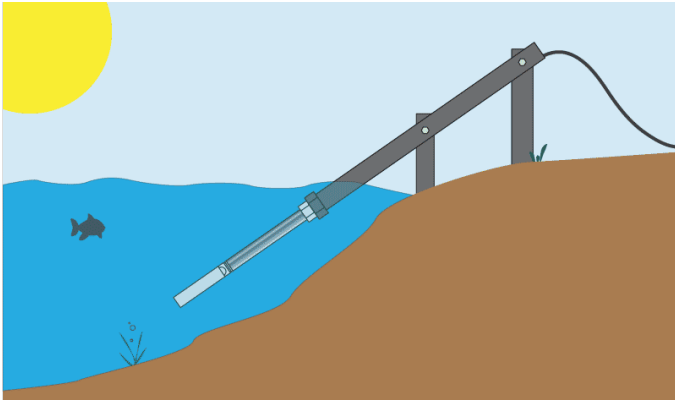




pHionics STs Series Conductivity Sensor

Product Images





Short Description

The pHionics STs Series™ Conductivity is a water quality sensor (sonde) designed to pair with a datalogger or RTU for real-time data capture. A narrow diameter allows the STs Series to go places others can't while the chemical-resistant housing ensures the sensor can stay there for many years. Proprietary electrode technology provides stable measurements to reduce calibration frequency.

Description

Highlighted Features

- 4-cell electrode measuring conductivity (ec), total dissolved solids (TDS), or salinity depending on scaling with datalogger or remote telemetry unit (RTU)
- Secondary 0-50°C temperature sensor
- 2-wire, 4-20 mA analog outputs compatible with many dataloggers or RTUs.
- Narrow diameter (0.75 inches or 1.9 cm) for groundwater monitoring applications
- Isolated to prevent ground loops
- Holds calibration for months at a time

All parts, including the cable, are easily replaceable without tools using pHionics patented pHiConn™ System, saving frustration and money.

In addition, isolation, differential amplification, and shielding ensure a strong signal with high signal-noise ratios, all while remaining low-power.

These features make our conductivity sensor well-suited for applications such as groundwater monitoring, wastewater treatment, aquaculture, pollution monitoring, etc.

Full Features List

- 4-cell electrode to measure conductivity, TDS, or salinity depending on scaling
- Secondary 0-50°C temperature sensor
- Chemical-resistant Delrin®, PVDF, and 316 Stainless Steel housing (Titanium optional)
- Metal housing acts as the solution ground, removing background noise caused by stray electrical

currents

- Narrow diameter (0.75 inches or 1.9 cm)
- Electrode guard to reduce debris or algae buildup and protect from damage
- Fully submersible up to 70 psi
- Shielded, Kevlar®-reinforced, water-blocked polyurethane cable
- 4-20 mA signal capable of transmission up to 3 miles (with proper wire gauge)
- Automatic Temperature Compensation (2% per degree Celsius)
- Reversible Input Protection and Operation
- Isolated to prevent ground loops
- Signal conditioning to remove background noise

Low Maintenance

- Reduce the number of site visits with the STs Series Conductivity sensor. A 4-cell electrode holds calibration for long periods of time while also preventing errors due to polarization.
- In addition, the guard protects the sensing elements from algae and debris build-up, further reducing the need for calibration.

Mounting Options

Due to their small diameter and light-weight design, pHionics STs Series™ sensors may be set up in a number of ways. They may be suspended by the Kevlar-reinforced cable down a pipe, as shown to the right, or mounted at the end of a pipe using the pHionics cmp-k compression fitting, as shown to the left and below.

Specifications

Conductivity Sensor

Output	4-20 mA
Conductivity Range	0-100,000 µS
Electrode Type	4-cell
Transmitter Type	2-wire
Automatic Temperature Compensation	2% per °C
Power Supply Voltage	8-40 VDC
Response Time	95% < 5 seconds
Pressure Range	0-70 psi
Wetted Materials	316 SS, Delrin®, Viton™, PVDF
Length	14.50 in (36.83 cm)
Width	0.75 in (1.90 cm) maximum
Weight (No cable)	0.50 lbs (0.227 kg)

Linearity	± 0.20% of full scale*
Accuracy	± 0.20% of full scale*
Sensitivity	± 0.05% of full scale

Temperature Sensor

Output	4-20 mA
Temperature Range	0-50°C
Accuracy	+/- 1°C
Linearity	+/- 0.5°C
Power Supply Voltage	7-40 VDC

Cable

Cable Material	Polyurethane
Type	4 conductor, Kevlar® reinforced, water blocked, shielded, twisted-pair wiring
Maximum Distance	3 miles
Resistance per 1000 ft (304.8 m)	26 Ohms
Replaceable?	Yes

Additional Information

Brand	pHionics
Country of Manufacture	United States
Ideal For	Professional

Product Options

Water Quality Sensor Range:	0-500 $\mu\text{S}/\text{cm}$
	0-1,000 $\mu\text{S}/\text{cm}$
	0-5,000 $\mu\text{S}/\text{cm}$
	0-10,000 $\mu\text{S}/\text{cm}$
	0-50,000 $\mu\text{S}/\text{cm}$
	0-100,000 $\mu\text{S}/\text{cm}$