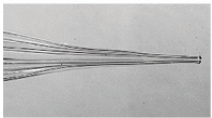


MSCTI

The Model 125 MicroScale Conductivity and Temperature Instrument is designed to measure the electrical conductivity and temperature of solutions containing conductive ions. This instrument provides two analog voltage outputs, one linearly proportional to the solution conductivity, and one non-linearly proportional to the solution temperature. Special emphasis is placed on making rapid, small spatial resolution measurements of both parameters in laboratory situations.

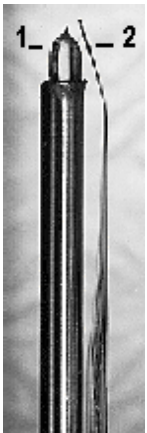
Applications

- Turbulent density and temperature variations in salt-stratified water flows
- Turbulent salinity flux
- Determine density profiles



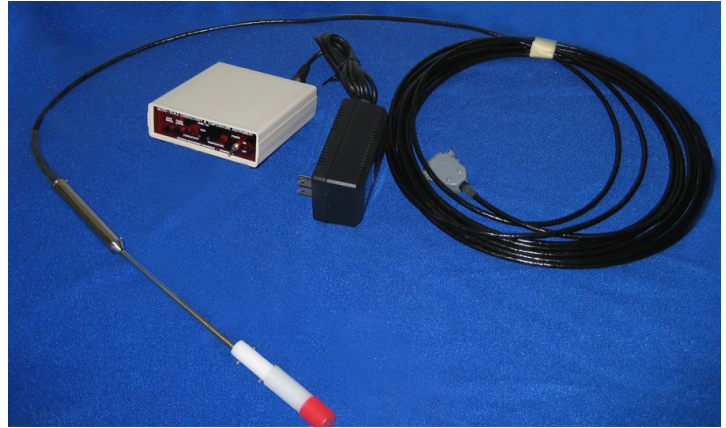
Fast Conductivity Sensor

Makes very rapid, high resolution measurements of electrical conductivity of water.



Fast Conductivity & Temperature

The Fast CT sensor is a combination of PME's Fast Conductivity sensor and Thermometrics fast response FP07 thermistor. This sensor can be used for investigating turbulent mixing in stratified fluids.



Specifications

Fast Conductivity

Measurement Equation	$V_o = G \cdot C - 5$
8 hour calibration stability	Better than 1% of C reading
Time response	-3db at approx. 800 Hz
Spatial response	-3db at approx. 4 cycles/cm
Noise	<1 mv RMS 10 Hz to 1 KHz
Output voltage range	.5 to 800 mS/cm

Fast Temperature

Measurement Equation	$V_o = G \exp(A + B/T) - 5$
8 hour calibration stability	better than .5 deg. C
Time response	.007 second time constant
Noise	<1 mv RMS 10 to 200 Hz
Output voltage range	+/- 5 volts
Temperature Range	0 to 40 degrees C
Calibration	0 to 30 degrees C