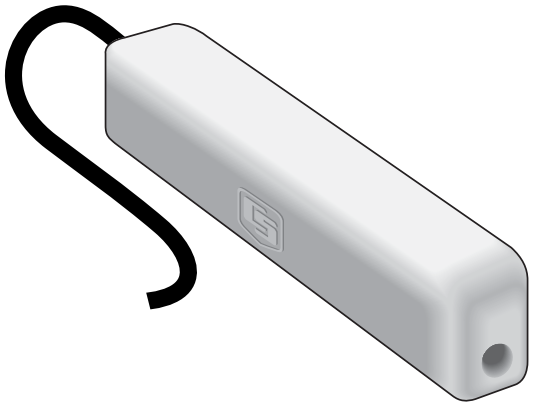
Conductivity and Temperature Probe

Model CS547A

Campbell Scientific's CS547A probe measures the electrical conductivity (EC), total dissolved solids, and temperature of water. EC is measured with three cylindrical stainless steel electrodes mounted in an epoxy housing. The electrode configuration eliminates ground loop problems associated with sensors in electrical contact with earth ground. To reduce electrochemical reactions, minimize corrosion, and extend the probe's life, the electrodes are ac coupled, and a bipolar excitation is applied. Temperature is sensed with a thermistor.

The CS547A is easy to clean and resistant to corrosion. It has rounded ends to facilitate installation and removal. For ground water applications, a weighted option is offered. Each CS547A is factory calibrated in a standard solution; the solution is NIST traceable with ±0.25% accuracy. The conductivity and temperature measurements require a differential and single-ended channel, respectively, and can be measured by our CR510, CR10(X), CR23X, or CR7 dataloggers.



The CS547A is suitable in most surface water, laboratory, and industrial applications. A weighted version is available to facilitate stand-alone submersion.

The A547 Conductivity Interface contains the blocking capacitors and bridge completion resistors necessary for the conductivity measurement. One A547 is required for each CS547A when used directly with the datalogger; multiple CS547A probes can be used with one AM16/32 or AM416 (retired) multiplexer and one A547.

Ordering Information

CS547A -L	CS547A; user specifies lead length after L. An A547 Conductivity Interface is required.
A547	CS547A Conductivity Interface.
14195	Optional CS547A weight; adds 2.8 oz to the CS547A to facilitate stand-alone submersion.
7421	Optional Split Mesh Cable grip.

CAMPBELL SCIENTIFIC, INC.
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CS547A Specifications

- Conductivity range: Approximately 0.005 to 7.0 mS cm^{-1}. Contact factory for extended ranges.
- Conductivity accuracy in KCl and sodium salt standard solutions @ 25°C:

±%	Range
5	0.44 to 7.0 mS cm^{-1}
10	0.005 to 0.44 mS cm^{-1}

- Depth rating: Maximum 1000 ft (305 m)
- Lead length: Up to 1000 ft (305 m)
- pH range: survives 3.0 to 9.0
- Wetted materials: epoxy housing, 316 stainless steel rings, polyurethane cable
- Temperature measurement range: 0° to 50°C
- Temperature accuracy: Polynomial linearization error typically <0.1°C over 0° to 48°C. Thermistor interchangeability typically <0.2°C over 0° to 50°C.
- Minimum pipe ID in which CS547A fits: 1.1″ (2.79 cm)
- Dimensions: 1″ x 0.75″ x 3.5″ (2.54 x 1.91 x 8.89 cm)
- Weight: 4.2 oz (120 g) w/4 ft lead
- Optional additional weight: 2.8 oz (80 g)

A547 Specifications

- Dimensions: 2.5″ x .0.9″ x 1.8″ (6.4 x 2.3 x 4.6 cm)
- Weight: 2 oz. (45 g)

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Printed July 2003