



## Corrosion Resistant

Epoxy housing is durable and easy to clean

### Overview

The CS547A is a water quality probe that measures both electrical conductivity (EC) and temperature. It connects to a Campbell Scientific datalogger via the A547 interface. This

probe is compatible with most Campbell Scientific dataloggers.

### Benefits and Features

- › Compatible with most Campbell Scientific data loggers
- › Easy to clean
- › Corrosion resistant
- › Rounded ends facilitate installation and removal
- › Compatible with AM16/32-series multiplexers allowing measurement of multiple sensors
- › Weighted option available for stand-alone submersion

### Detailed Description

The CS547A measures temperature with a thermistor. Electrical conductivity (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. The electrodes are ac coupled, and the datalogger applies a bipolar excitation. This process reduces

electrochemical reactions, minimizes corrosion, and extends the probe's life.

The CS547A is easy to clean and resistant to corrosion. It has rounded ends to facilitate installation and removal. The CS547A is shipped with a cell constant calibrated in a 0.01 molal KCl solution at 25°C. The solution has an EC of 1.408 mS cm<sup>-1</sup>.

### Specifications

Output Analog (requires A547 interface)

Conductivity Measurement Range ~0.005 to 7 mS/cm

Temperature Measurement Range 0° to 50°C

Conductivity Accuracy › ±5% of reading (for 0.44 to 7.0 mS cm<sup>-1</sup> range)

- › The EC accuracy is in a KCl and Na<sub>2</sub>SO<sub>4</sub>, NaHCO<sub>3</sub>, and NaCl Standard Solutions @ 25°C.



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| Temperature Polynomial Linearization Error | Typically < 0.1°C (over 0° to 48°C)  |
| Thermistor Interchangeability              | Typically < 0.2°C (over 0° to 50°C)  |
| Wetted Materials                           | Epoxy housing, 316 stainless-steel rings, polyurethane cable                             |
| pH Operating Range                         | Solution pH of less than 3.0 or greater than 9.0 may damage the stainless-steel housing. |

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|-----------------------------|--|
| Operating Temperature Range | 0° to 50°C   |
| Depth Rating                | 305 m (1000 ft) maximum  |
| Dimensions                  | 8.9 x 2.54 x 1.9 cm (3.5 x 1 x 0.75 in)  |
| Weight                      | <ul style="list-style-type: none"> <li>› 45 g (2 oz)</li> <li>› 120 g (4.2 oz) with 1.22 m (4 ft) cable</li> </ul> |
| Weighted Cable Weight       | 80 g (2.8 oz)  |

For comprehensive details, visit: [www.campbellsci.com.au/cs547a-l](http://www.campbellsci.com.au/cs547a-l) 



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