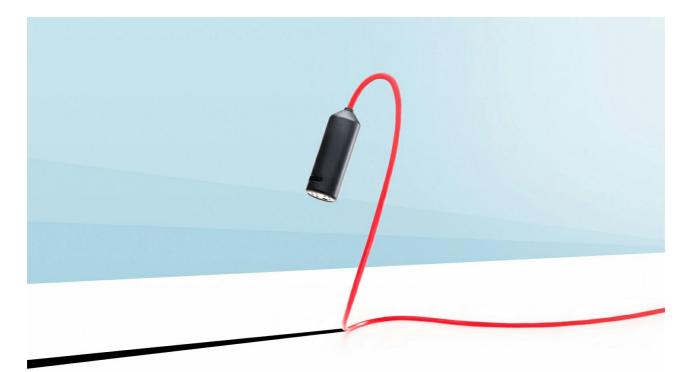
# Conductivity / Temperature / Depth Sensor



## The case of too many sensors

The problem with most water depth, temperature, and electrical conductivity (EC) sensors is that their cost is prohibitively high. Not only that, but the measurement often requires you to purchase an extra sensor to make a barometric pressure reading to correct for atmospheric pressure. You need a low-cost instrument that's equipped with every sensor necessary for things like tracking changes in solute movement, measuring groundwater recharge, and studying surface water hydrology. You need the HYDROS 21.

# Just the right mix of measurements

A compact 3.4 cm diameter sensor that fits into tight spaces, the HYDROS 21 is a lowcost, durable, and easy-to-use tool for monitoring EC, temperature, and depth in both groundwater and surface water. More importantly, it's an all-in-one instrument. When used with the <u>ZL6</u> data logger, you won't require an additional sensor for measuring and referencing—barometric pressure. With a range of 0 to 120 dS/m and a measuring depth of 10 m, the sensor makes accurate depth and EC measurements for a broad range of applications.

# Level 1 simplicity (on a scale of 1-10)

One of the qualities that makes the HYDROS 21 so easy to use is its fast plug-and-play compatibility with the <u>ZL6</u> data logger (also compatible with Campbell Scientific data loggers). Plus, with the ZL6, you can monitor and remotely access cloud data wirelessly from any internet-connected computer or device in near-real time.

## Same measurement specs for less

Trying to measure water level, temperature, and <u>EC</u> typically requires an expensive sensor with integrated telemetry. Unlike competitor sensors, all of the HYDROS 21's data management happens in an external data logger, so the cost of each individual sensor is lower. Now, instead of having to rely on a single point measurement, you can take readings in several different locations without exceeding your budget.

# A high-level water sensor in every sense

While engineering the HYDROS 21, we wanted to design a water level sensor that was not only highly accurate but also provided a high degree of value. Because of its lowcomplexity, low-maintenance, and low-cost design, you can be assured you're getting an instrument that will save you time, hassle, and money.

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#### Features Specifications Support / Downloads Request a quote

#### Features

- Continuously monitor groundwater and surface water level changes
- Integrated electrical conductivity and temperature measurement
- 3.4 cm diameter sensor that fits into tight spaces
- Low cost
- Durable
- Easy to use

## Specifications

Range	Water depth: 0 to 1,000 cm Electrical conductivity: 0 to 120 dS/m Temperature: -11 to 49 °C, do not expose to freezing temperatures if sensor is in water
Resolution	Water depth: 2 mm Electrical conductivity: 0.001 dS/m Temperature: 0.1 °C
Accuracy	Water depth: +/- 0.5% of full scale @ 20 °C
	NOTE: Depth measurement accuracy assumes no abrupt temperature variations
	Electrical conductivity: ±0.01 dS/m or ±10% (whichever is greater)
	NOTE: The EC is corrected to a standard temperature @ 25 °C
	Temperature: ±1 °C
Operation temperature	0 to 50 °C (Pressure transducer cannot be allowed to freeze while submersed)
Power requirements	3.6 - 15 VDC, 0.03 mA quiescent, 0.5 mA during 300 ms measurement
Dimensions	9 cm (l) x 3.4 cm (w)

Measurement time	300 ms (milliseconds)
Output	Serial TTL, 3.6 Volts Levels or SDI-12
Connector types	3.5 mm (stereo) plug or stripped & tinned lead wires (3)
Cable length	10 m standard; custom lengths available upon request
Data logger compatibility (not exclusive)	METER ZL6,EM50/60 Series, ProCheck, Campbell Scientific

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