

## Considerations for Water Conductivity Meters

(Models mentioned do not constitute endorsement. These meters are mentioned for the range of characteristics encompassed and for illustration purposes only).

There are a few factors to consider:

- Cost
- Probe directly attached to the meter or on a several foot cable
- Conductivity ranges available
- Accuracy
- How ambient is obtained (as an option to select or by calculation from the specific conductivity and water temperature readouts).

Here are some examples of meters:

### YSI EcoSense EC300A Conductivity Meter

Cost: \$290

Probe: on 4 to 10 m cable

Conductivity ranges: 0 - 500  $\mu\text{S}/\text{cm}$ , 0 - 5000  $\mu\text{S}/\text{cm}$ , 0 - 50  $\text{mS}/\text{cm}$ , 0 - 200  $\text{mS}/\text{cm}$

Accuracy:  $\pm 1\%$  of reading plus 2  $\mu\text{S}/\text{cm}$  for 0 - 500  $\mu\text{S}/\text{cm}$  range;  $\pm 1\%$  of reading plus 5  $\mu\text{S}/\text{cm}$

Select either Automatic Temperature Compensated (ATC) for specific conductivity or ambient conductivity

### EXtech EC400 Conductivity Meter

Cost: \$88 - \$105

Probe: directly on bottom of meter

Conductivity ranges: 0 - 200  $\mu\text{S}/\text{cm}$ , 200 - 2000  $\mu\text{S}/\text{cm}$ , 2 - 20  $\text{mS}/\text{cm}$

Accuracy:  $\pm 2\%$  of full range (so, for the 0 - 200  $\mu\text{S}/\text{cm}$  range, that's  $\pm 4 \mu\text{S}/\text{cm}$ )

ATC for specific conductivity only; however, also displays water temperature so you could calculate ambient conductivity

### EXtech EC100 Conductivity Meter

Cost: \$50

Probe: directly on bottom of meter

Conductivity ranges: 0 - 2000  $\mu\text{S}/\text{cm}$ , 0 - 20  $\text{mS}/\text{cm}$

Accuracy:  $\pm 1\%$  of full range (so, for the 0 - 2000  $\mu\text{S}/\text{cm}$  range, that's  $\pm 20 \mu\text{S}/\text{cm}$ )

ATC for specific conductivity; however, the temperature coefficient can be set to zero thereby giving ambient conductivity output.

### Oakton ECTestr 11+ Conductivity Meter

Cost: \$112;

Probe: directly on bottom of meter

Conductivity ranges: 0 - 200  $\mu\text{S}/\text{cm}$ , 0 - 2000  $\mu\text{S}/\text{cm}$ , 0 - 20  $\text{mS}/\text{cm}$

Accuracy:  $\pm 1\%$  of full range (so, for the 0 - 2000  $\mu\text{S}/\text{cm}$  range, that's  $\pm 20 \mu\text{S}/\text{cm}$ )

ATC for specific conductivity only; however, also displays water temperature so you could calculate ambient conductivity