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FlowTracker2 Lab ADV® Frequently Asked Questions

FAQ – January 2019

Q1: How do I know if the FlowTracker2 Lab ADV will be useful to me?

Both the FlowTracker2 Handheld ADV and FlowTracker2 Lab ADV are solutions for point velocity measurement in a laboratory tank or flume, aquaculture tank or raceway, hydraulic model, etc. Both will provide the accuracy, resolution, shallow depth measurement and ability to collect data at precise locations only available via an Acoustic Doppler Velocimeter (ADV®) system. The FlowTracker2 Lab ADV will provide a faster sample rate capability than the 2 Hz output of the FlowTracker2 Handheld ADV system, and will also provide for a direct connection to a computer rather than using the handheld display.

Q2: What are the components of the FlowTracker2 Lab ADV system?

The FlowTracker2 Lab ADV system consists of a FlowTracker2 probe assembly; a kit that includes a splitter cable to connect the FlowTracker2 probe assembly directly to a computer and power supply, an AC/DC power supply, and an RS232/USB converter; and the probe assembly option/upgrade to enable the FlowTracker2 Lab ADV feature.

Q3. What are the sample rate options?

The FlowTracker2 Lab ADV sample rate is user-selectable between 1, 2, 5 and 10 Hz. The sampling rate is selected in the FlowTracker2 software during the measurement setup process.

Q4. Are the pressure data also sampled at the higher rates?

Yes, if the probe assembly is equipped with a pressure sensor, the pressure data will be sampled simultaneously with the velocity data (1, 2, 5 or 10 Hz).

A unique feature of the FlowTracker2 is that the depth data are corrected for the dynamic effects of flowing water, providing for accurate depth data over the full velocity range of the system. Also, as the pressure sensor is located in the transmitter assembly, the depth data are co-located at the same level as the velocity data and in close proximity to the sample volume for the velocity data. For further information on the FlowTracker2 pressure sensor, see the SonTek Technical Note "FlowTracker2 Depth Measurements with Compensation for Dynamic Pressure Effects."



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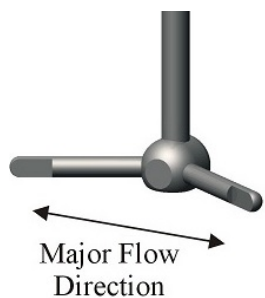
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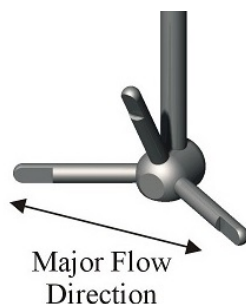
FlowTracker2 pressure sensor probe assembly

Q5: What are the available sensor geometries for the FlowTracker2 Lab ADV

The available probe geometries at this time are 2D side-looking and 2D/3D side looking. The side-looking sensor geometries will allow for measurement in water depths as shallow as 2-3cm, including depth data for probe assemblies equipped with a pressure sensor. For the 2D/3D sensor geometry, in very shallow depths it will report X and Y velocities, and when there is enough depth to submerge the third receiver arm the system will then report the Z, or vertical, velocity component.



2D Side-Looking



2D/3D Side Looking

Q6: If I already have a FlowTracker2 system with a Handheld Display unit, can I buy the lab option?

Yes, for customers that have a FlowTracker2 Handheld ADV system there is an upgrade option to purchase the license to enable the FlowTracker2 Lab ADV feature, where the license is based on the serial number of the FlowTracker2 probe assembly. If a



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customer has multiple probe assemblies, a license will need to be obtained for each probe assembly that will be used with the Lab ADV feature in the software.

Q7: What kind of data does the software output?

The FlowTracker2 software records to a *.csv file format for the customer to use or import the data into another processing tool. At present the software is only for continuous data collection, where the measurement start/stop is controlled by the user, and there is no post-processing capability. More features might be added in the future if there is enough customer demand. Please contact us with any feedback.

Q8: Can I use multiple probes at the same time?

Yes, by opening multiple instances of the FlowTracker2 software. Please note that there is no ability for synchronous operation of multiple probes.

Q9: What is the maximum cable length that can be used with the FlowTracker2 Lab ADV?

As with the FlowTracker2 Handheld ADV, the maximum supported cable length is 10m. The FlowTracker2 probe assembly includes a 1.5m length cable, and there optional extension cables in 1.5m, 3.5m and 8.5m lengths.

Q10: Whom do I contact for a quote or with additional questions?

Please contact the local SonTek representative or agent for your area, which can be found in the Contacts section of the SonTek website (www.sontek.com), or simply contact our headquarters at +1.858.546.8327 or inquiry@sontek.com. FlowTracker2 Product Manager Janice Landsfeld can be reached at extension 142, or Janice.landsfeld@xyleminc.com. We welcome and value your questions and feedback.