



A YSI Environmental Company

1.0-MHz RiverSurveyor Mini-ADP system

Frequently Asked Questions

What is new about this system?

Previously, only the 1.5-MHz and 3.0-MHz ADP systems have been available in the Mini-ADP package. The 1.0-MHz frequency is a new addition to our Mini-ADP family. It offers the same capabilities as the standard size 1.0-MHz system, but in a smaller package.

What is the advantage to using the 1.0-MHz Mini-ADP version?

When compared to the 1.5-MHz Mini-ADP, the principle advantage is gaining additional profiling range. The 1.0-MHz frequency extends the range that the RiverSurveyor Mini-ADP system can profile to 30 to 40 meters (110 to 132 ft), depending on conditions. In addition, the lower frequency will enable its use in heavily loaded sediment environments such as those commonly found in parts of Asia.

What is the basic configuration?

The basic configuration consists of the 1.0-MHz Mini-ADP transducer head and cable, and the black electronics box that houses the ADP processor, batteries, and telemetry module. This is the same electronics box that houses the RiverCAT electronics, but is slightly taller. Although not meant for underwater operation, it will not be damaged if temporarily submerged up to 1 meter.

Are there physical differences between the 1.5/3.0-MHz and 1.0-MHz Mini-ADP systems?

Yes. The main differences are listed here.

- The cable attached to the 1.0-MHz Mini-ADP transducer head is permanently molded to the housing. There is no connector on the head itself. There is a connector on the electronics box, but it has a different pin configuration than the 1.5/3.0-MHz Mini-ADPs.
- The connector on the black electronics box has 18 pins, rather than the common 16 pins.
- The lid on the black electronics box is slightly taller than on the 1.5 /3.0-MHz systems.
- Transducers are covered in urethane instead of epoxy. This is similar to our standard sized 0.25, 0.5, and 1.0-MHz ADP.

Can the new 1.0-MHz RiverSurveyor Mini-ADP system be used on the RiverCAT or OceanScience platforms?

Absolutely. The 1.0-MHz Mini-ADP system is available from SonTek in the RiverCAT configuration, and also may be used with the Ocean Science Trimaran.

Is the Shallow Water Ping available with the 1.0-MHz Mini-ADP?

No. Unfortunately, the pulsing scheme for the 1.0-MHz Mini-ADP does not allow for Shallow Water Ping capability. The following profiling specifications apply to this system:

Min/Max range: 0.75 to 30-40 m (2.5 to 110-132 feet)

Min cell size: 0.25 m (0.8 ft)

I have a 1.5 MHz RiverSurveyor system with a built-in recorder, can the 1.0-MHz Mini-ADP support an internal recorder too?

No. Unfortunately, due to height limitation on of the board stack and accompanying electronics, there is not enough room in the black electronics box for a built-in recorder.

How long is the cable from the transducer to the electronics?

Only two options are available for this system: 0.9 m (3 ft) and 3 m (10 ft) cables.

Can I extend the cable?

No. These cables are very high-quality, high-frequency analog cables. As such, they are highly sensitive to noise and should not be modified.

Can the 1.0-MHz Mini-ADP have a pressure sensor?

No. At this time the only available configuration is without a pressure sensor.

Is there anything different about the data output or software compatibility?

Not at all! Data output and software compatibility is the same for both standard and Mini-ADP versions.

Is the 1.0-MHz Mini-ADP available in the autonomous configuration for underwater deployment?

No. At this time, the only available configuration is for real-time operations. An autonomous version is being developed.