

#### Volume 22

Summer 2022

We apologize for the website issue which took place on the release of our last newsletter. We are confident that the website is fully functional and free from any virus or malware. All links in this newsletter are safe and go to the Applied Technologies, Inc. Website (<u>www.apptech.com</u>)

# Applied Technologies, Inc. - Sonic Anemometer "K" Style Probe



## Why should I buy an ATI Ultrasonic Anemometer?

Are you looking for a very accurate and rugged sonic anemometer for your atmospheric or scientific studies?

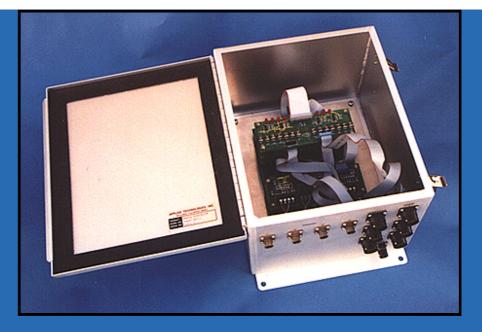
The <u>Applied Technologies Ultrasonic Anemometer</u> is what you need.

- The ATI Sonic Anemometer is the only <u>TRUE</u> orthogonal anemometer on the market. Rather than being inferred or calculated from some other measurement, our orthogonal ultrasonic anemometers measure "true vertical velocity" (the "W" component) as a direct measurement with an alignment accuracy of better than ±0.1°. The resulting data is captured with excellent frequency response, making it ideal for many aspects of atmospheric research, including Eddy Covariance and Eddy Flux (calculating vertical turbulent fluxes within atmospheric boundary layers).
- No need to worry about sending the Sonic back to the factory for calibration. Calibration can be performed by the operator. An operator's manual comes with each instrument which details the calibration and use of the Sonic. Our website has a <u>Frequently Asked Questions</u> page for quick answers, and our factory representative is a phone call or email away for questions not listed in the FAQ page.
- Each of our probes are precision machined from aluminum stock and clear anodized to protect them from the elements. The electronics are sealed in the probe and completely protected from rain and snow. ATI Sonics have been used in scientific burn studies and are also in use in the Antarctic and many other environments. See <u>Customer Stories</u> here.
- We offer several different <u>Probe Styles</u> that can provide a perfect fit for your atmospheric or scientific applications. There are also many <u>Options</u> available for each of the probe styles. Each of our sonic anemometers are custom assembled with the options of your choice and fully tested when you place your order. Your sonic is shipped to you in a sturdy, reusable box with foam cutouts for the probe. (We recommend you hang on to the box and foam to help protect your Sonic when storing or moving).
- We at Applied Technologies, Inc. stand behind our meteorological instruments. We provide a <u>Warranty</u> that all products manufactured by ATI shall be free from defects in material and workmanship for a period of 24 months (2 years) from the date of shipment.

You can download all of our brochures, which include specs, from <u>Here</u>. You can Request a Quote from <u>Here</u>. <u>Visit Our Website</u>

**Applied Technologies, Inc.** 

DataPacker/DataLogger



#### What if I need to sync other sensors with the sonic?

**Applied Technologies has the solution!** The <u>DataPacker/DataLogger</u> enables the use of multiple Sonic Anemometers as well as many other sensors and instruments, both analog and digital, and then will synchronize all inputs so all the measurements are taken at the same time and outputs the data to your computer. It also has the ability to store the data as well on a standard SD card.

- The DataPacker/DataLogger has the ability to connect an unlimited number of Sonic Anemometers. Each unit can accommodate 8 Sonics, and multiple units can be connected together to allow an unlimited number of Sonics to be utilized.
- You have complete access to each of the Sonics connected to the DataPacker/DataLogger by talking to them through the DataPacker/DataLogger.
- Each DataPacker/DataLogger can accommodate a wide variety of instruments and sensors, both analog and digital.
  (Note: If you have a special digital sensor you would like to use, contact the factory to see if it can be included).
- The DataPacker/DataLogger will synchronize all Sonics and other sensors and combine the data to a single packet for output to your computer via a serial connection or stored for later analysis using a standard SD card. Other output options are available: Ethernet, WiFi or RF radio.
- The DataPacker/DataLogger can be enclosed in a weatherproof enclosure to protect the electronics from the elements. The size of the enclosure varies with the number of inputs required. The number of inputs, sonic, analog and digital must be specified when placing your order. The DataPacker/DataLogger is custom built to your specific needs.
- Power is applied to the DataPacker/DataLogger and it will then supply power to all of the instruments connected to it. Various power sources and backup batteries are available. <u>Check out the brochure</u>.

You can download our brochure, which include specs, from <u>Here</u>. You can Request a Quote from <u>Here</u>.



## What else do you have?

Applied Technologies manufactures more than Sonic Anemometers and our DataPacker/DataLogger. We sell the **Anemoment™** - <u>TriSonica Mini Wind and Weather</u> <u>Sensor™</u> and accessories, a <u>High-speed Temperature System</u> and a <u>Flux Measurement</u> <u>System</u>.

If you need something special that is not available "off the shelf", we can help there as well. We can <u>custom design</u> a special probe to meet your requirements.

Some things already developed are:

- Sonic probe for cold climate, which would operate down to -200° C
- Special probe arms designed to adapt to the customer's equipment or application
- Software changes to provide special data as an output, with or without the normal data
- Unique transducer arrangement to measure air flow through a very large area (20+ ft path)
- Using the sonic technology to determine properties of various gasses
- Used the sonic technology to measure fast response temperature changes
- Used the sonic technology to build an intrusion alarm
- Sonic probe for hot climate, which would operate to +250° C
- Built a sonic probe to measure gas flow at high altitude, up to and including the stratosphere.

#### We can help you complete your project!

You can download our brochures, which include specs, from <u>Here.</u> You can Request a Quote from <u>Here</u>. <u>Visit Our Website</u>



#### **New Product Alert!**

The TriSonica<sup>™</sup> Sphere Wind Flux Sensor



Anemoment<sup>™</sup> has designed a brand new sonic.

The TriSonica<sup>™</sup> Sphere Wind Flux Sensor was engineered from inception to deliver more precise vertical wind measurements coupled with fast sampling rates (up to 100 Hz) making it ideal for UAS-based atmospheric flux and turbulence research, including eddy covariance studies.

Its unique design and open path geometry provides the least possible distortion of the wind field, especially vertical turbulences. The TriSonica<sup>™</sup> Sphere accurately measures all three dimensions (U, V, and W) of air flow, and with data output rates as high as 100Hz, the TriSonica<sup>™</sup> Sphere is the fastest, compact 3D sonic anemometer specifically designed to capture atmospheric turbulence and flux measurements.

Click <u>HERE</u> to see the specs for this sensor.



## Laugh it off...



#### **Churchill' isms**

- Diplomacy is the art of telling people to go to hell in such a way that they ask for directions.
- You will never reach your destination if you stop and throw stones at every dog that barks.
- Fear is a reaction; Courage is a decision.
- A nation that forgets its past has no future.
- If you're not a liberal at twenty, you have no heart; if you're not a conservative at forty, you have no brain.
- There is nothing government can give you that it hasn't taken from you in the first place.
- Success consists of going from failure to failure without loss of enthusiasm.
- A good speech should be like a woman's skirt: long enough to cover the subject and short enough to create interest.
- A pessimist sees the difficulty in every opportunity; and optimist sees the opportunity in every difficulty.
- One man with conviction will overwhelm a hundred who have only opinions.
- However beautiful the strategy, you should occasionally look at the results.
- You don't make the poor richer by making the rich poorer.
- life can either be accepted or changed. If it is not accepted, it must be changed. If it cannot be changed then it must be accepted.
- We contend that for a nation to try to tax itself into prosperity is like a man standing in a bucket and trying to lift himself up by the handle.
- I'd rather argue against a hundred idiots than have one agree with me.
- In the course of my life, I have often had to eat my words, and I must confess that I have always found it a wholesome diet.
- Life is fraught with opportunities to keep your mouth shut.
- An appeaser is one who feeds a crocodile, hoping it will eat him last.



APPLIED TECHNOLOGIES, INC. 665 Frontage Rd. Suite 280 Longmont, CO 80501

> Email: info16@apptech.com Phone: 303-684-8722 www.apptech.com

Join us on Social Media!

