Applied Technologies, Inc.
Ultrasonic Anemometer Line

"SPAS/2Y" Probe Array

FEATURES:

- *Single component wind velocity*
- *Fast response wind velocity*
- *Fast response temperature*
- *Extreme accuracy*
- *Microprocessor based*
- *Solid-state digital operation*
- *No moving parts*
- *Unattended operation*
- *Ease of mounting*
- *Rugged construction*
- *Low power*
- *DC powered*
- *True orthogonal measurements*
- *2D winds*

2D – 15cm Sonic Anemometer

The Model SPAS/2Y Solid State Wind Sensor is an improved and more precise 2D member of Applied Technologies, Inc.'s Sonic Anemometer product line. This sensor offers high quality performance in a less expensive package.

The SPAS/2Y Wind Sensor is a continuation of the Sonic Wind Sensors developed 30 years ago, and contains the same wind distortion algorithm and factoring that have been proven and accepted around the world.

Data from the instrument is digital for direct connection to data loggers, computers, and systems.

The instrument is designed to perform

Extras:

- *Mounting Fixture –*
  Allows for mounting to the end of a horizontal pipe, 1" IPS

- *Materials –*
  Anodized aluminum and stainless steel

- *Environment --*
  Capable of withstanding hostile environmental conditions

- *Connections –*
  A single connector on the bottom provides input power and output signals

Features:

- *No moving parts*
- *Digital outputs*
- *Time proven design*
- *Sensor emulation*
- *Replaces many other anemometers*
- *Low power*
- *Solid-state digital operation*

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Specifications

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FUNCTIONS:

- Ability to do remote commands through the serial port

- Perform internal calibration to maintain accuracy

- User programmable data rates and averaging, from 1 output per 60 minutes to 200 Hz

- Select data averaging or median filter

- Select from several output formats

- Select from several baud rates

- Synchronize sonic operation to external trigger

- Ability to output a trigger pulse for other instruments

- Select the output Speed of Sound and/or Temperature

- Enter RH value for more accurate temperature output

- User adjustments to temperature calculations

- Change horizontal velocity to wind speed & direction, while retaining temperature

- User adjustments to data quality calculations

- Ability to provide data quality status word in output format

- Turn flow distortion correction on or off

- User adjustments to flow distortion calculations

Range	0-65 m/s for wind speed
	0-359° for wind direction
	-50 to +70ºC Temperature
Resolution	0.01 m/s for wind speed
	0.001 m/s wind speed - optional
	0.1° for wind direction
	0.01ºC for temperature
Accuracy	±0.01 m/s for wind speed
	±2.0° for wind direction
	±1.2ºC for temperature (absolute)
	±0.1ºC or ±0.05ºC for sonic temp
Operating Conditions:	
Temperature	-50°C to +70°C
Relative Humidity	0 – 100%
Digital Output	RS-232 standard
	RS-422/485 optional
Sampling Rate	200 per second
Data Output Rate	<1 Hz to 200 Hz - variable
Speed of Sound	Operator Optional
Baud Rate	4800 to 460,800 adjustable
Rain/Snow	Can be heated
Operating Frequency	150 kHz
Power	+12 Vdc @ <100 ma
	(9 – 32 VDC)
Dimensions	24.13 cm across arms
	49.5 cm top to bottom
	3.81 cm (1.5") Tube OD
Weight	<1.0 kg

Applied Technologies, Inc.
665 Frontage Rd. #230
Longmont, CO   80501

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

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