Ultrasonic Wind Sensor uSonic-2 Wind

previously USA-2

- **Cost efficient sensor for precise measurement of horizontal wind**
- **No moving parts, no maintenance**
- **Measuring range up to 60 m/s**
- **Robust stainless steel construction**
- **Ice protection by efficient sensor heating**
- **Reliable long term operation**
- **Analogue data output**
- **Graphical user interface**

METEK Meteorologische Messtechnik GmbH

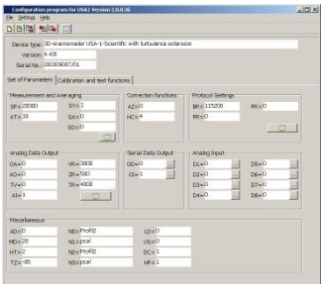
Ultrasonic Wind Sensor uSonic-2 Wind

previously USA-2

Typical Applications

- Meteorological systems
- Routine observation of wind parameters
- Installation in severe site conditions
- Ice protection for mountain sites
- Long term unattended operation
- Meteorological networks
- Research stations
- Industrial sites
- Airports
- Marine and offshore platforms
- Wind energy
- Sport events

User interface (GUI)



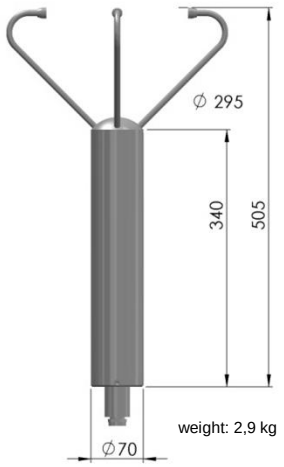
Graphic output

The Ultrasonic Anemometer **uSonic-2 Wind** is a 2D wind sensor for standard meteorological applications. It has proven reliable operation in all weather types, outstanding flexibility, high rated system performance and user friendly operation in widespread applications. It delivers raw or mean values of wind components x and y including acoustic temperature or horizontal wind speed and wind direction via serial interface RS422 / RS485 or as analogue output for wind components x and y available.

For reliable operation in adverse conditions icing can be prevented by an efficient sensor head heating. The operation of the heating is controlled an monitored by the sensor electronic.

The sensor head design had been optimized by comprehensive wind tunnel tests and which assures precise wind data for the hole measuring range.

Mechanical drawing



Ambient conditions	- 40 … + 60 °C, 5 … 100 %
Average time / number	1 … 3600 s / 1 ... 65365 samples
Sampling rate / output rate	0.1… 40 Hz / 0 …10 Hz
Measurement ranges	0 … 60 m/s, - 40 … + 70 °C
Accuracy (max. dev.) Wind speed / wind direction	 0.1 m/s or 2 % / 2° @ 5 m/s
Resolution	0.01 m/s, 0.1°,0.01 K
Azimuth alignment	0 … 359 °, adjustable
Output data set	x, y, T or vel, dir, T
Averaging method	scalar, vectorial
Output protocols	standard, checksum, NMEA
Data output	async, polling, time synchronized
Internal memory	15300 data sets
Power supply	12 - 36 VDC / 3 W
Sensor head heating (option)	24 VDC / 55 W on / off / auto, monitored
Analogue output	2 x 0-20/4-20 mA and 2 x 0-5/±5 VDC 12 bit, range adjustable
Serial interface	RS422, RS485 (300 … 115200), ASCII
Mounting	stud Ø (outer) 34 mm diverse adapters available

METEK GmbH, Fritz-Strassmann-Str. 4, 25337 Elmshorn, Germany
Phone: +49 4121 43590, Fax: +49 4121 4359 20
E-mail: info@metek.de, Internet: http://www.metek.de

tüv CERT DIN EN ISO 9001

METEK

2014-08-29