

## ULTRASONIC ANEMOMETER. WNT

*A sensor for measuring horizontal wind speed and direction. It can be used with Aanderaa Wind Display Panels 3300/3400.*

This ultrasonic anemometer, with no moving parts, is especially useful in areas with severe vibrations and in harsh environments. The sensor is based on ultrasonic principles and outputs both wind speed and direction. The sensor connects directly to Wind Display Panels 3300 and 3400.

Standard connecting cables with different lengths are available. For installation the sensor will fit onto a 42mm vertical tube.

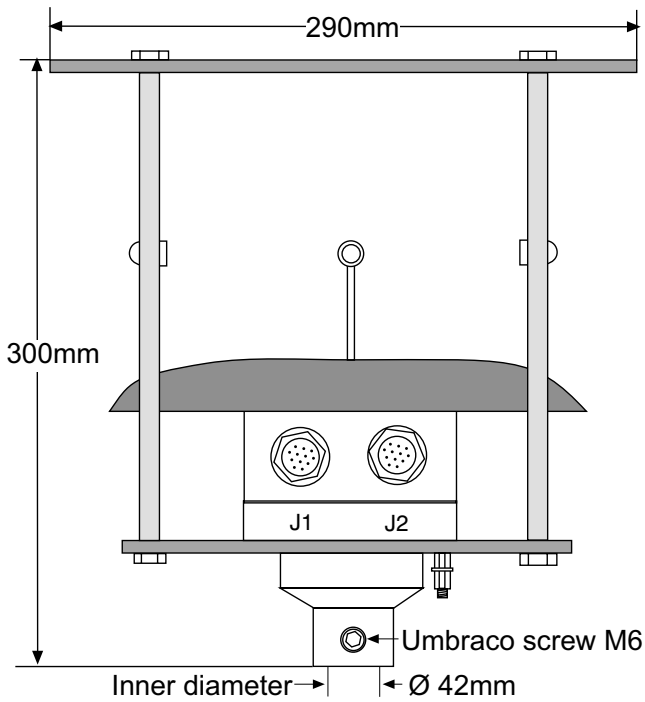
The sensor is based on an average time delay measurement method. This technique compensates for environmental influences including barometric pressure, humidity and air temperature. The sensor is supplied with a user-

selectable RS 232 interface or an analog output for speed and direction.

The sensor operates over a wide temperature range and environmental conditions.

An automatic heating system is integrated into the sensor and heat is switched on and off depending on the ambient temperature. The ON/OFF switch is activated at +5°C. While the heating is on the current drain is at its maximum. The heating will also be turned on when the measurement signal is disturbed or erratic. This is normally caused by the formation of dew or moisture on the sensor.

# SPECIFICATIONS FOR ULTRASONIC ANEMOMETER, WNT 918020



- Measuring range:**
  - Wind speed: 0-60m/s  
0-112knots(optional)
  - Wind direction: 0-359°
- Output signal format** RS-232/NMEA AQ183
- Resolution:**
  - Wind speed: 0.1m/s
  - Wind direction: 1°
- Accuracy:**
  - Wind speed: ± 0.7 m/s
  - Wind direction: ± 3°
  - Sampling rate: > 1Hz
- Power supply:** Powered from the Wind Display Panel 3300
- Power consumption:** 300mA typical  
400mA with heater on
- Operating Temperature:** -20 to + 50°C

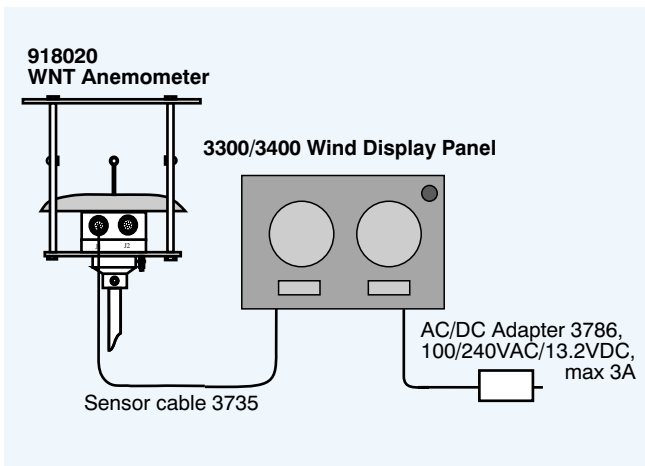
## SPECIFICATIONS, NMEA0183 SIGNAL:

- \$ Start of sentence
- WI Weather instrument
- MWV Sentence formatter, wind speed and angle
- 123.77 Wind angle (example)
- R Relative (T for true reading)
- 32.66 Wind speed (example)
- M Unit m/s (N: knots, K: Km/h)
- A Status of data
- <CR><LF> End of sentence

Example: \$WIMWV,123.77,R,32.66,M,A<CR><LF>

- Enclosure Rating:** IP 67
- Dimensions:** Ø 290mm, Height: 300mm
- Weight:** 3.6 kg
- Mounting:** Ø 42mm tube
- Accessories:** Connecting Cable 3735

## Sensor used with Wind Display Panel



Representatives Stamp

Latest version is on the Internet

PO BOX 160, NESTTUN  
5852 BERGEN, NORWAY

NESTTUNBREKKEN 97  
5221 NESTTUN, NORWAY

TEL. +47 55 109900  
FAX. +47 55 109910

E-MAIL: info@aanderaa.no  
WEB: http://www.aanderaa.com