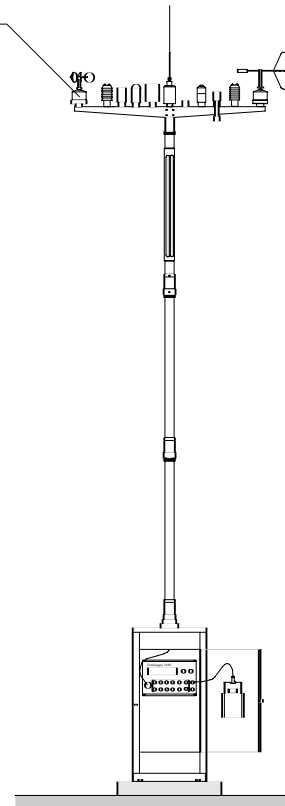




## WIND SPEED SENSOR 2740

*This sensor will measure the average and maximum wind speed (gust) during the sampling interval. It is designed for use with the Aanderaa Automatic Weather Stations, Sensor Scanning Unit 3010, Dataloggers 3660/3634, Display Units 3315/3017 or Wind Display Panels 3400/3300.*



*Automatic Weather Station AWS 2700*

The Wind Speed Sensor 2740 consists of a three cup rotor on top of an aluminum housing. The sensor can be fitted directly onto the sensor arm of Aanderaa Automatic Weather Stations or used separately if a connecting cable is used. The sensor will fit onto a 25 mm vertical tube.

The rotor bearings consist of 2 stainless steel ball bearings protected by a surrounding skirt. The lower end of the skirt is furnished with a magnet. The magnet's rotation is sensed by a magneto inductive switch located inside the housing. The sensor has 2 output signals; average and maximum wind speed (gust).

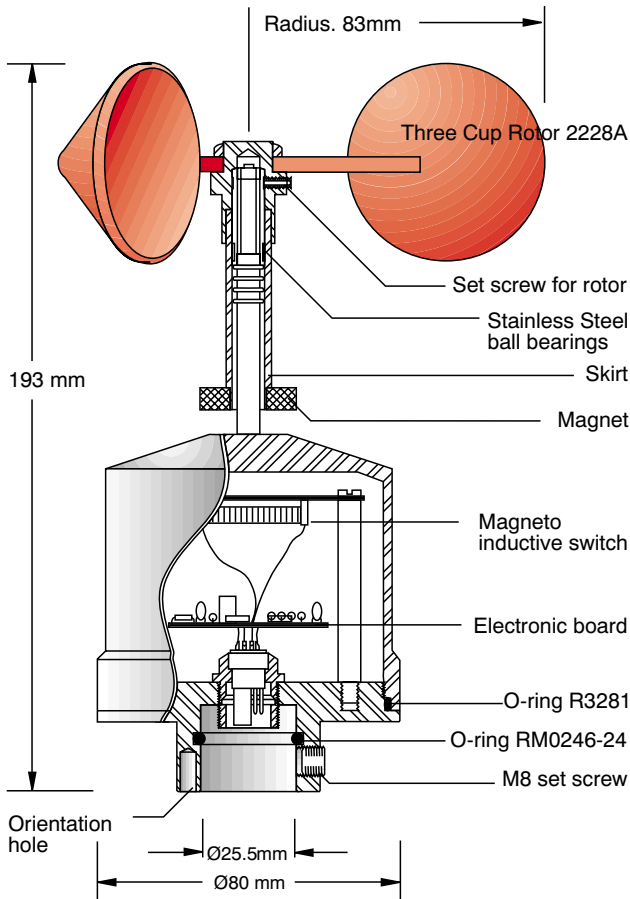
The arithmetic mean of the wind speed is obtained regardless of the sampling interval, providing that the

sampling interval is between four seconds and 3 hours.

The maximum wind speed is the highest speed occurring over a two second period at any time during the sampling interval.

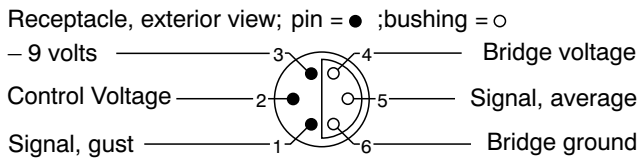
The micro controller reads pulses from the magneto inductive switch and calculates the average and the wind gust. It also provides the Aanderaa SR-10 output. Both average and gust will have the same conversion factor for calculation of speed in meters per second. This factor is independent of the sampling interval used.

From august 1998 the sensor is supplied with a new and rugged 3 cup rotor designated 2228A



- Range : Up to 79m/s
- Threshold Speed: Less than 0.3m/s
- Distance Constant: 1.5 meters
- Accuracy: ±2% or ±0.2m/s, whichever is the greater
- Output Signals: 1. Average Wind, SR-10  
2. Wind Gust, SR-10
- Current Consumption: 250µA
- Operating Voltage: 7 to 14V DC. Obtained from the scanning/display units or display panels
- Calibration Factor: 1.194 m wind way for each revolution. 2 counts each rotor revolution
- Operating Temperature: -40 to +50°C
- Electrical Connection: Receptacle 2843 mating Watertight Plug 2828L
- Material Housing: Al 6061T6 anodized 10-15µ
- Net Weight: 500 grams
- Packing: Cardboard Box: 385x290x235 mm
- Gross Weight: 1.3 kilograms (add 0.7 kg for 10m Connecting Cable 2842)
- Warranty: Two years against faulty materials and workmanship

**PIN CONFIGURATION**



Connecting Cable 2842 (10 meter cable with watertight plugs) with Gust Adapter Cable 2911 is available for connecting this sensor to the Aanderaa datalogging systems. Other lengths, or separate plugs and cables, are available on request.

**CALIBRATION**

The Wind Speed Sensor has nominal calibration coefficients. The coefficients are:

A	0	C	0
B	7.770E-02	D	0

The raw data readings (N), given by the Aanderaa Sensor Reading Units, are converted to engineering units by the formula:  $Wind_{m/s} = A + BN + CN^2 + DN^3$

For previously supplied Wind Speed Sensors with Three Cup Rotor 2228 the coefficients are:  
 A = 4.000 E- 01; B = 7.460 E- 02; C and D = 0.

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