

METEOROLOGICAL EQUIPMENT

ED CUP ANEMOMETER

FEATURES

- Very high accuracy
- Fast Response
- Very high wind speeds >80m/s
- Low starting threshold speed
- Side mounted Lemo plug connection
- 2-Wire transmission
- 3-Wire transmission with ED-261
- Wind Tunnel calibration (option)
- Pulse output or linear current output

APPLICATIONS

- Research and scientific measurements
- Wind farms
- Environmental monitoring and warning
- Agriculture - Industry - Aviation
- Meteorological Stations

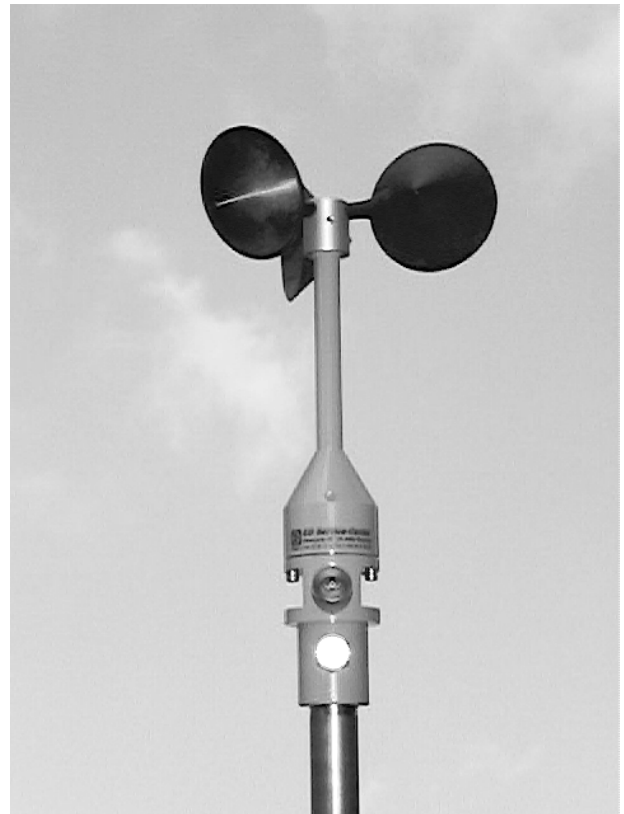
TECHNICAL CHARACTERISTICS

The ED Cup Anemometer has been used worldwide during the last 20 years by meteorological institutes, scientific- and research laboratories, and the Industry for measuring of meteorological data, producing of Wind Atlas, and measuring of produced energy from wind turbines.

The Anemometer is designed for a high professional quality, easy to operate, and meets the requirements of different applications.

As option the Anemometer can be delivered with a Wind Tunnel calibration report.

Three versions of sensor transducer are made to generate the 2-pulse output signal per revolution. The Reed Switch version is very suitable for equipment with a low current con-



sumption, and the ED-260 opto version is used for equipment with a wanted low maintenance rate. The ED-261 transducer is an opto version with separate power and pulses from 0V to VCC or an open collector output for directly connection to data acquisition equipment without further interface.

The ED-260-I transmitter is made for industrial standard current signal. The output signal is a linear current signal 4-20mA vs. Wind speed (defined when ordered).

With a body of painted brass, the carbon 3-cup rotor for more than 80m/s, and the ball bearings and shaft of stainless steel, the Anemometer is very suitable for environment with salinity, high wind speeds and wide temperature range.

TECHNICAL SPECIFICATIONS
ED CUP ANEMOMETER

Measuring Range	0 - >80 m/s
Threshold Speed	about 0.2 m/s
Distance Constant	2 m
Non-linearity	Within 0.05 m/s above 2 m/s
Wind Speed Formular	U = A*F+B (m/s) A = 0.6298 (2 Pulses per revolution) B = 0.142 F = Output Frequency
Sensor Transducer type	
1: Reed switch	2 Pulses per revolution.
2: ED-260 Opto transmitter	2 Pulses per revolution.
3: ED-260-I Current transmitter	2 Pulses per revolution
4: ED-261 Opto transmitter	2 Pulses per revolution
Sensor Output Signal	
1: Reed switch	On/off contact with 1KΩ in serial.
2: ED-260 Opto transmitter	4-20 mA for low/high pulse.
3: ED-260-I Current transmitter	Analog 4-20mA linear signal
4: ED-261 Opto Transmitter	0V-VCC for low/high pulse (Optional—Open collector)
Operating Temperature	-40 to +70°C (ED-260-I: -30 to +60°C)
Electrical Connections	
Transmitter 1, 2 and 3:	LEMO triaxial plug Terminal 1: Signal Terminal 2: GND
Transmitter 4:	LEMO 3 pin plug Terminal 1: GND Terminal 2: VCC (5-24VDC) Terminal 3: Signal
Materials	Body of brass, primed and painted. Cup of Carbon fibre (Utility Model no: 9400271).
Mechanical Specifications	
Height	295mm
Diameter of Cup	190mm
Weight	1.2 Kg
Mounting Hole	Ø 25mm
Accessories included	Lemo triaxial plug or Lemo 3 pin plug according order
Options	
Opto electronic TX	1: 1 Pulse per revolution.
Calibration	2: Wind tunnel calibration.
Plug connection	3: Bottom mounted plug.
EU Declaration of Conformity	EN61000-6-3 Emission. EN61000-6-2 Immunity.
Warranty	One Year against faulty materials or workmanship.
Maintenance	
Annually	Check of cable, plug, ball bearings, cup and body.
Every Second Year	Annually check and change of ball bearings.

Serial no.: _____

Transducer: _____

Measuring Range
ED-260-I (4-20mA): 0.2-_____ m/s.

Options: _____

Calibration Report: _____

Date: _____

Sign: _____