



METEOROLOGICAL EQUIPMENT

ED-WIND DIRECTION SENSOR HIGH WIND SPEED COS/SIN 4 KHz

FEATURES

- Very high accuracy
- 0 - 360° measurement
- Better than 0.1° resolution
- Very high wind speeds >80m/s
- 5-pole plug connection
- Removable vane

APPLICATIONS

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



TECHNICAL CHARACTERISTICS

The ED-Wind Direction Sensor cos/sin 4KHz is a counter-balanced and low-threshold wind vane with a cos/sin output voltage, proportional to the angle of the vane. The signal transducer is a brushless resolver with an effective angle of 360°, a resolution better than 0.1°, and an electric error better than +/- 10 minutes.

This type of wind direction sensor is used worldwide at wind farms, airports and meteorological stations.

The body is made of painted brass, and the vane of anodized aluminium, very suitable for environment with salinity, high wind speeds and wide temperature range.

TECHNICAL SPECIFICATIONS
ED-WIND DIRECTION SENSOR COS/SIN 4KHz

Measuring Range	0 - 360°
at wind speed	0,5 - >80 m/s
Threshold Speed	0.5 m/s
Resolution	<0.1°
Damping Ratio	0.4
Distance Constant	1 m
Resolver	Brushless, built-in type
Effective Electrical Angle	360°
Input Voltage	3 VRMS
Frequency	4 KHz
Input Current	16 mA
Electrical Error	max +/- 10 minutes
Output Signal	Cos and Sin to the angle with one cycle output voltage in one revolution.
Operating Temperature	-40 to +70°C
Electrical Connections	5-pole LEMO plug
	Terminal 1: Cos High
	Terminal 2: Cos/Sin Low
	Terminal 3: Sin High
	Terminal 4: Carrier High
	Terminal 5: Carrier Low
Materials	Body of brass, primed and painted. Vane of anodized aluminium. Ball bearings, shaft and counterbalance of stainless steel.
Mechanical Specifications	
Height	355mm
Rotating Diameter of Vane	350mm
Weight	1.4 Kg
Mounting Hole	Ø 25mm
180° Point (South)	The 10mm mounting bolt and cable socket are aligned to 180°, i.e. pointing towards South. REMARK: Old versions (and the Vestas Model) have the bolt and socket aligned to 0°, i.e. pointing towards North.
Accessories included	5-pole LEMO plug
Options	1: Vestas model with bolt towards North 2: Bottom mounted plug
EU Declaration of Conformity	EN50 081-1 Emission EN50 082-2 Immunity
Warranty	One Year against faulty materials or workmanship.
Maintenance	
Annually	Check of cable, plug, ball bearings, vane and body.
Every Second Year	Annually check and change of ball bearings.

Serial no.: _____

Options: _____

Date: _____

Sign: _____