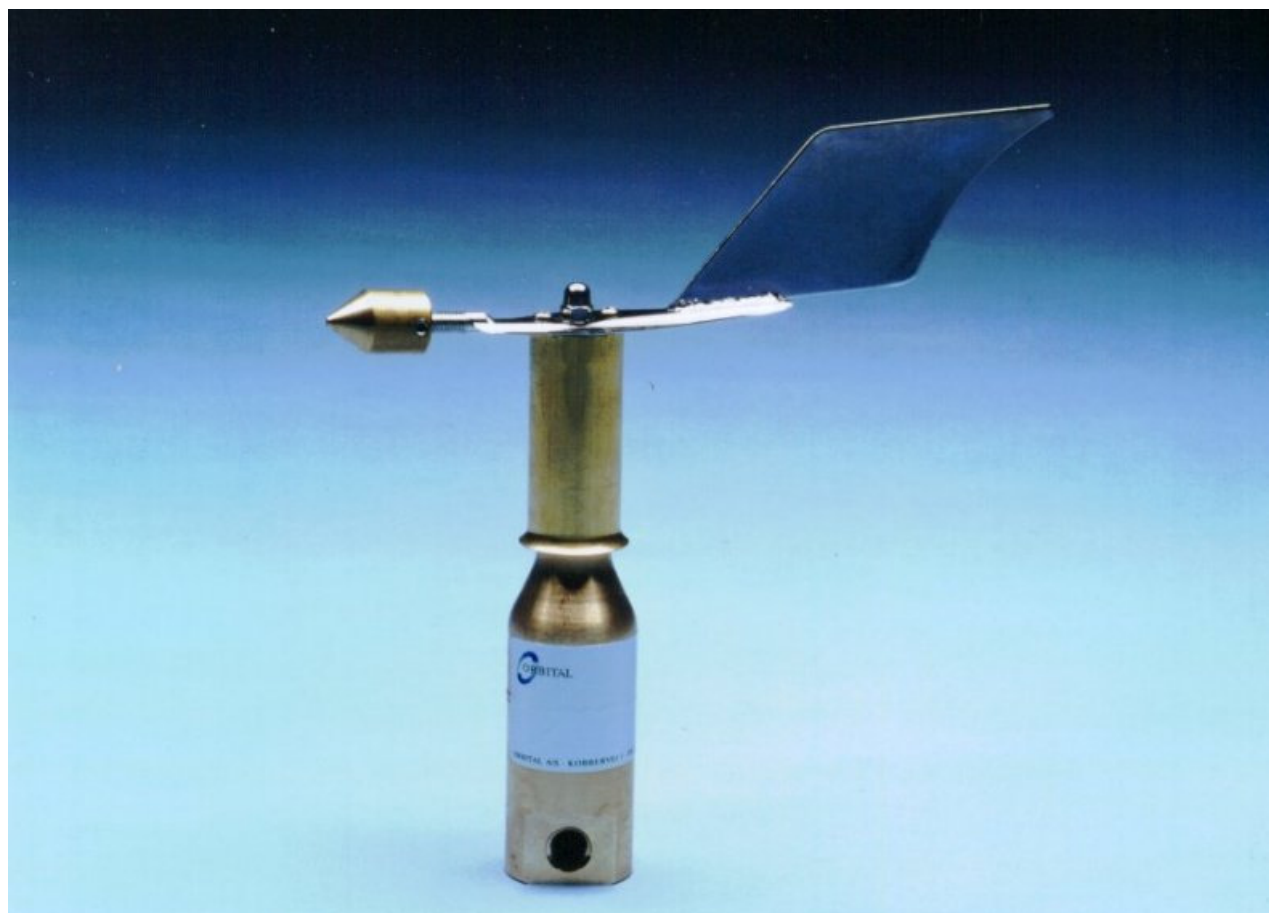


Datasheet

Orbital Wind Vane

Module type Wind vane.
Type nr. 421
Description..... The wind vane is used in wind turbines for yaw control
HW-version 1.01
Documentation..... 97_WindVane421_2011



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Exclusion of liability

We have checked the contents of this manual. Since deviations cannot be precluded entirely, we cannot guarantee for full agreement. The data in this manual are reviewed regularly and any necessary corrections included in subsequent editions. Suggestions for improvement are welcomed.

Technical data is subject to change without notice.

Features

- Opto-electrical sensor
- PNP output
- Robust and Long-term durability performance (brass/stainless steel)
- Prepared for heating unit

1.1 Direction indication

The “Black/White” direction indication is relative. (see 1.2)

1.2 Direction signal

Arrow direction *)	Output signal
Right	High (18 VDC)
Left	Low (floating)

*) With the socket recess/mounting bolt against the wind.

2 Mounting the wind vane

2.1 Mechanically mounting

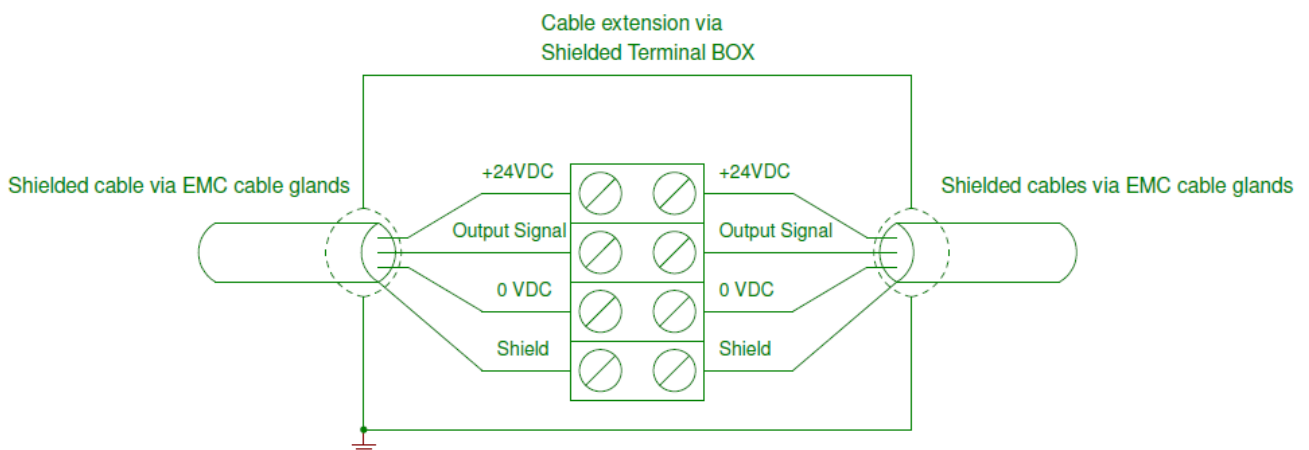
Mounting vertically and with the socket recess/mounting bolt against the wind. (With enclosed M12 mounting bolt (Stainless steel))

Attention: Please follow the instructions above. Do NOT remove the wind vane from the shaft. Reduced lifetime and bad calibration will be the result.

Mounting base must be connected to earth.

2.2 Electrical mounting

Cable shield must be grounded, i.e. earth connected.



3 Environmental data

3.1 Temperature

Operating temperature range : -20..+50 °C
Storage temperature range : -40..+70 °C

3.2 Wind speed

Min. wind speed..... : 1,5 m/s

4 Mechanical data

4.1 Materials

Housing..... : Brass (Cu Zn39Pb3)
Top..... : Stainless 18/8 Steel (Aisi 304)
Bearings..... : Low friction precision steel bearings, on top semi-closed with special seal.

4.2 Cable

Cable type..... : Shielded PVC LIYCH, 3 x 0,25 mm²
Cable diameter : 4,6 mm

4.3 Screwed connection

Material : Stainless 18/8 Steel
Type..... : M12, 50.616M/EMV, (EMC)

4.4 Weight

Weight..... : 0,7 kg

4.5 Transport container

Dimensions (l x h x w)..... : 278 x 185 x 217 mm
Material : Expanded polystyrene
Total weight : 1,15 kg

5 Power supply

5.1 Power supply

Input voltage : 24VDC
Input current..... : 0.05A_{max}

6 Interface

6.1 Output-signal & Power

Interface standard..... : 3-wire shielded cable

<i>Cable</i>	<i>Wire colour</i>	<i>Function</i>
	White	+24 VDC (+)
	Brown	Output-signal
	Green	0 VDC (-)
	(Black)	Shield, (Is connected inside Anemometer)

7 Output

7.1 Output-signal

Output type : PNP
Number of outputs : 1
Output load : 0.03A_{max}

8 Standards

8.1 EMC standards

- DS/EN 50081-2:1994..... : Electromagnetic compatibility - Generic emission standard - Part 2:
Industrial environment
- DS/EN 61000-6-2:1999 : Electromagnetic compatibility (EMC) - Part 6-2: Generic standards –
Immunity for industrial environment

9 Mechanical dimensions (principle drawing)

