Wind Direction

Description

The wind direction transmitter records the horizontal wind direction.
The measured values are available at the output as analog voltage or current signal.
An electronically-regulated heating system may be installed for wintertime use in order to prevent the ball bearing and the external rotating parts from freezing.
The outside parts of the equipment are made of aluminium and are additionally protected by an anodized coating.
A special labyrinth prevents reliably and without friction the penetration of water into the interior housing which holds the potentiometer as well as the electronically regulated heating.

Technical data

Measuring range	: 0 ... 358°
Resolution	: 0, 5°
Accuracy	: ± 1, 5°
Loading	: max. 59 m/s
Output Signal	: 0…2 kOhm
Power Supply	: 12 … 24 V
Operating temperature	: - 30 °C ... + 80 °C
Assembly	: Mast pipe with outside diameter ∅ 225 mm
Heating Power	: max. 20 VA
Weight	: 0, 4 kg

Preparations for use

Selecting a site

In general wind measurement instruments should be able to detect the wind conditions of a large area. In order to obtain comparable values when determining the surface wind, measurements should be taken at a height of 10 meters over an even area with no obstacles. An area with no obstacles means that the distance between the wind direction transmitter and an obstacle should be at least 10 times the height of the obstacle. If it is not possible to fulfil this condition then the wind direction transmitter should be set up a height where local obstacles do not influence the measured values to any significant extent (approx. 6-10 m above the obstacle). The wind direction transmitter should be set up in the centre of flat roofs not on the avoid bias in the direction (privileged directions).

Windcom Messtechnik GmbH
Tel.:+49 (0) 40 68 28 39 29 • Fax: +49 (0) 40 68 28 59 36
www.windcom.de
windcom@windcom.de

Mounting

The mounting of the transmitter could be done for example on a mounting arm with a boring of ∅ 35, 2 mm

When using fastening adapters (angle, traverses etc.) please notice that turbulences could possibly influence the characteristic curve.
After flexible connection cable is passed through the boring, the wind direction transmitter could be fixed with hexagonal nut (WMO 36) after being in its right position. For electrical connection please refer to the connection diagram.

North alignment

Rotate the case markings on the shaft and on the protective cap until they are aligned. Then select an obvious point in a northerly direction in the surroundings (a tree, a building etc.) with the aid of a compass. Take a bearing on this point over the metal deflector and rod of the wind vane and when these coincide screw the transmitter into place.

Maintenance

After proper mounting the instrument works maintenance free.
Heavy pollution can clog up the slit between the rotating and the stationary parts of the wind transmitter. This slit must be kept clean.