

Wind Direction Transmitter-compact

Instruction for use



General

The wind direction transmitter detects the horizontal wind direction. The measured values are delivered as Ohm's resistance signals. The wind direction is detected by a low inertia plastic wind vane, the axle of which is running in ball bearings and is connected with the potentiometer axle.

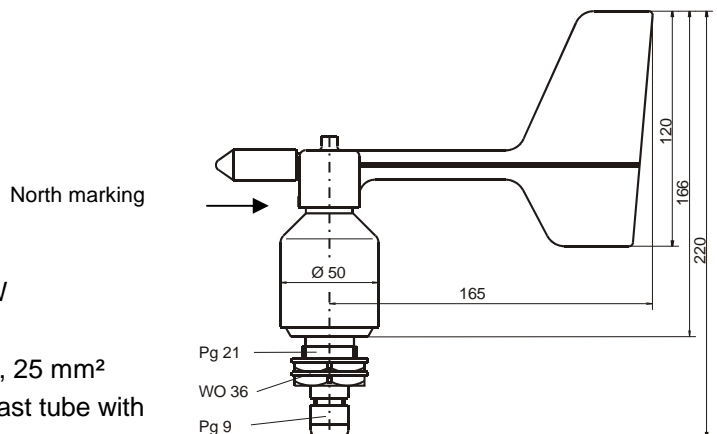
An electronically-regulated heating system may be installed for wintertime use, in order to prevent the ball-bearing and the external rotating parts from freezing.

Power for the heating system can be provided for instance by our **Power Supply Unit**.

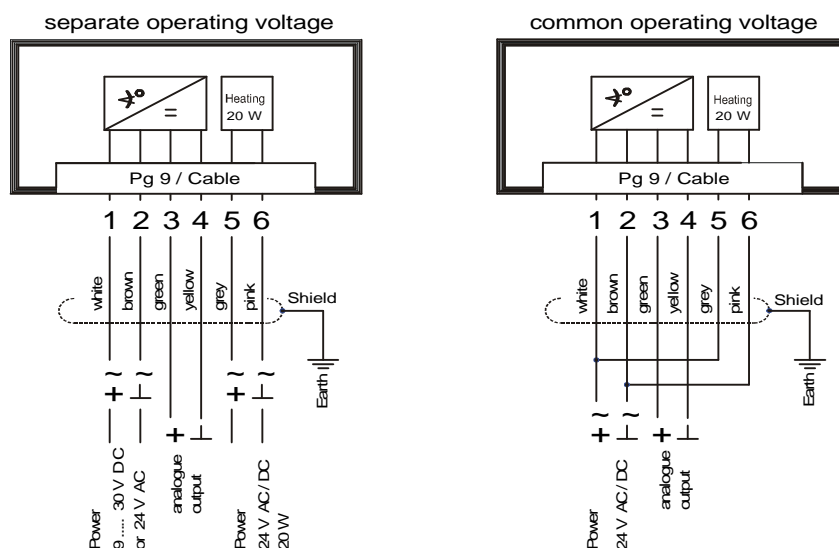
The outer parts of the equipment are made of corrosion resistant material (plastic) manufactured and the aluminum parts are additionally protected by an anodized coating. Labyrinth seals protect the sensitive parts inside the equipment against humidity.

TeScale drawing

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|----------------------|---|
| Measuring range | : 0 ... 360° |
| Accuracy | : $\pm 0,5^\circ$ |
| Meas. principle | : opto-electronically |
| Potentiometer output | |
| Max. Power Supply | : 100 mA |
| Max. Spanning | : 50 V |
| Max. Load | : 1,5 W |
| Heating | : 24 V AC/DC max. 20 W |
| Ambient temperature | : - 30 °C ... + 70 °C |
| Cable | : 12 m long, LiYCY 6 x 0,25 mm ² |
| Mounting | : for. Example, onto a mast tube with Boring thread Pg 21 Or boring \varnothing 29 mm |
| Weight | : 1,20 kg |



Connecting diagrams



Preparation

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 at 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).

Mounting

The mounting of the transmitter could be done for example on a mounting arm with a boring of Pg 21 or on hangers with a boring of \varnothing 29 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, wind direction transmitter could be fixed with hexagonal nut (WO 36) after being in its right position. For electrical connection please refer to the connection diagram.

Attention: Storing, mounting and operation under weather conditions is permissible only in vertical Position, as otherwise water can get into the instrument.

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.