



### Range of application

The wind transmitter is used for the registration of the horizontal component of the wind velocity. The measuring value will be placed at the output as digital. The signal can be given to a data logger. The wind transmitter is equipped with an electronically regulated heating system in order to prevent ice and frost from the ball bearings and the outer rotation parts. Power supply unit provides the transmitter and the heating system with current. It is advisable to attach a lightning rod in areas with considerable lightning activity.

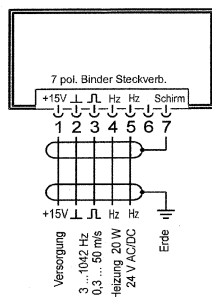
### Set-up of the Instrument

A low-inertia light metallic cup star is set into rotation by the wind. Through the opto-electronical rotating-frequency-scanning the resulting pulse frequency is used for the digital data processing. Input and outputs have to be protected from overload by transzorb diodes. The outer parts of the instrument are made of corrosion-resistant parts and they are protected through a varnish. The sensitive parts inside of the instrument are protected from precipitation through labyrinth seals and o-rings. The instrument is designed to be mounted to a mast; the electrical connection is located in the stem of the transmitter.

The wind transmitter is shipped in a semi-mounted state in order to avoid transport damage and to keep the package small.

It consists of the following parts:

- 1 Case
- 1 Cup star
- 1 Connection plug



Technical data	Anemometer Classic
Protection	IP55
Cups	Aluminium
Measuring range	0, 3 ... 50 m/s
Resolution	0,05 m Wind run
Measuring accuracy	$\pm 3\% \pm 0,5 \text{ m/s}$ of measuring value
Starting velocity	0,3 m/s
Maximal load	max. 60 m/s
Distance constant	5 m
Housing material	anodized aluminium, weather-resisting plastics
Operating voltage	15 V DC (4 ... 18V) ca. 0,3 mA unloaded
Scanning	clevis light cabinet
Heating	24 V AC/DC max. 20 W electronically controlled
Ambient temperature	-30 °C ... + 80 °C
Electrical output	0 ... 1042 Hz
Connector	7- pole plug BINDER - Connector (Series 691)
Weight	1 kg
Bearing change	recommended interval every 24 months
Wind load at 35 m/s	approx. 10 N
Mounting	Onto mast tube 1 ½ e.g. DIN 2441

## Preparation for use selecting the site

According to international regulations, the surface wind should be measured at a height of 10 m above flat, open terrain, in order to achieve comparable values. An open terrain is defined as terrain where the distance between the wind-measuring instrument and the next obstacle is at least ten times the height of this obstacle (see VDI 3786, Part 2). If the regulation cannot be adhered to, the measuring instrument should be installed at a height at which the measurement values are not influenced by any local obstacles. In any case, the measuring instruments are to be installed at a height of 6 to 10 m above the mean height of the buildings or trees in the vicinity. If it is necessary to install the instrument on a roof, it should be installed in the centre of the roof in order to avoid any preferential directions.

## Mounting of the cup star

Unscrew the cap nut (SW 8) from the wind velocity sensor case and remove the disk. Keep the rubber sealing washer in the protection cap. Set the cup star into position in such a way that the dowel pin in the cup star catches in the nut of the protective cap. Replace the disk and rescrew the cap nut. Hold the transmitter on the protective cap not on the cup.

## Mounting of the Wind Transmitter

Mount the transmitter to a short piece of pipe of R 1" ( $\varnothing$  48 mm) and a length of 50 mm. The short piece of pipe must have an internal diameter of at least 36 mm as the wind transmitter must be connected electrically with a plug from below. Solder a flexible lead wire LiYCY with the appropriate number of cores of 0,5 mm each to the enclosed plug. Once the electrical connection has been carried out, set the wind transmitter onto the short piece and fasten it to the shaft with the two hexagonal screws.

## Maintenance

If the instrument has been properly mounted, no maintenance is required. However, heavy pollution could cause the slits between the rotating and stationary parts of the instrument to clog up. Thus it is recommendable to remove dirt deposits from the transmitter from time to time. Naturally, the bearings of the generators and the ball-bearings are subject to a certain degree of wear and tear. After years of use, this could lead to a higher starting torque or to the fact that the cup anemometer no longer rotates. Should such a defect occur, we would recommend that you return the instrument for repairs.

