

Magnetic Measuring Systems for Wind Power Plants



Your advantages:

The operators of wind power plants are concerned with productivity and demand minimum downtimes. ELGO systems match these requirements perfectly due to their reliable technical design and outstanding product finishing.

- Simple installation
- Direct measurement at point of use
- Non-contacting, wear- and maintenance-free
- Insensitive to dust, dirt and moisture (IP 67)
- Vibration and shock resistant, for use in harsh conditions
- Compact design (small sensor head with integrated readout electronic)

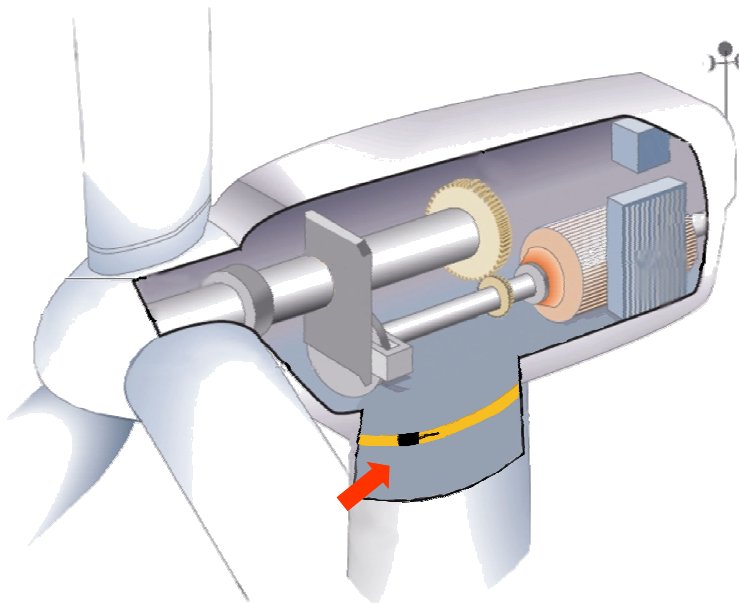
Magnetic Measuring Systems for Wind Power Plants

General: Whenever mechanical movements have to be monitored, magnetic measuring systems are an important link between mechanics and controls. Whether for nacelle position control, rotor blade angle adjustment or rotor speed monitoring—magnetic measuring systems from ELGO offer a reliable and precise identification of path, angle and revolutions to the latest generation of wind generators.

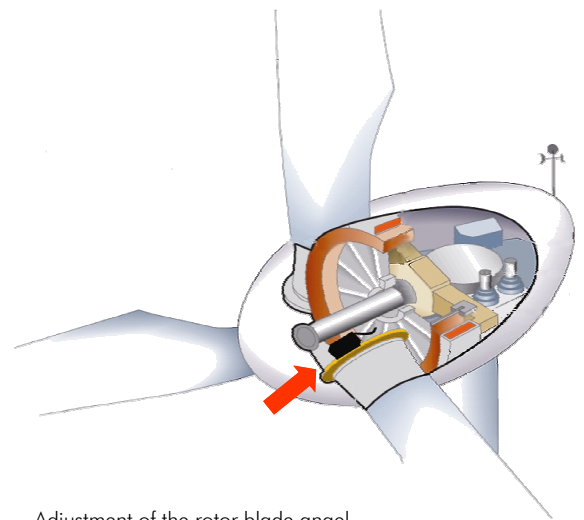
For more than 30 years the systems of ELGO have proven themselves in numerous applications across various industrial sectors.

Functional principle: ELGO systems are based on the contact-free magnetic position measuring technology, which traces the actual physical position of the sensor head on the magnetised sections on the tape. The flexible magnetic tape is fixed along the distance that has to be measured. The actual position on the tape is recognized by the electronic sensor through the interchanging magnetic fields of North and South Pole on the tape. This guarantees the direct measurement (readout the real physical position at the point of measurement). A special electronic readout integrated in the sensor head translates the analog data into digital path and angle signals. The digital signals are transmitted to the controller. The flexible magnetic tape can also be fixed to any radial position. Magnetic rings are also available. Besides incremental encoders ELGO also offers absolute encoders. The absolute measuring systems work with an absolute magnetic tape, which always shows the actual position. Even in case of „power-off“, the absolute magnetic system always indicates the right position. Referencing systems can be eliminated.

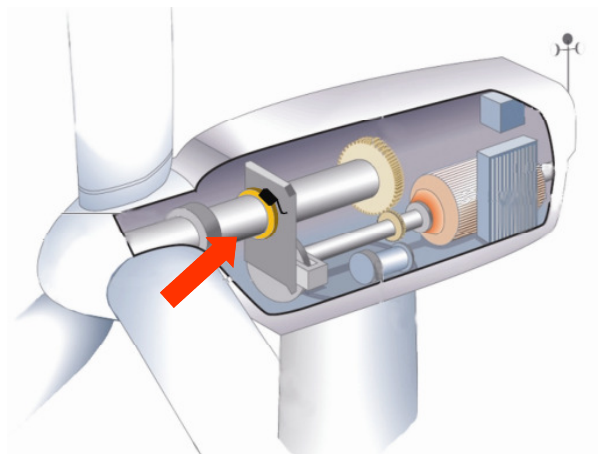
Applications



Nacelle position control



Adjustment of the rotor blade angle



Rotor speed monitoring

