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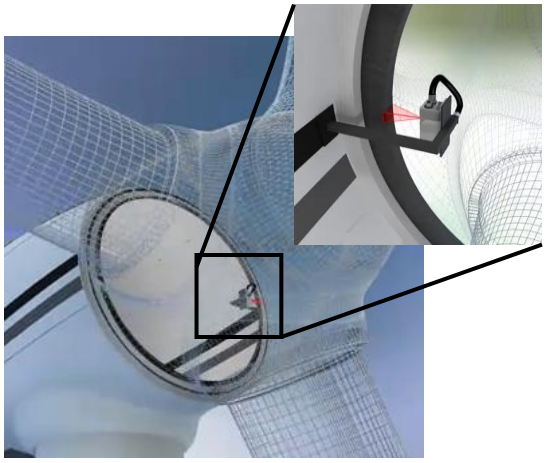
ROTATIONAL SPEED MEASUREMENT FOR WIND TURBINES



Machine Category:
Gearless Wind Turbine

Industry:
Wind Energy

Country: Italy; India

Product Series:
OPT-S1.

Specification:
Only Y-Axis; Pressure Compensation Element; Customized Diagnostic Output Configuration

Competing Technical Solution:
Incremental Encoder inside the Collector Ring or Inductive Sensors

Benefits of Technical Solution
Precise and dynamical measurement due to mechanically decoupled of the sensor, vibrations have no influences on the results. Furthermore the sensors are ideally suited for upgrading due to their easy installation.

Reasons For Choosing INTACTON
OPT-S1 is an Unique Selling Proposition. Innovative idea (use optical motion sensor for rotational speed measurement)

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LEITWIND®

LEITNER® ropeways

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ADDITIONAL INFORMATION

Additional Information:

Here you can find a short application video: http://www.youtube.com/watch?v=r2zOLprfj2I

The measurement surfaces must be pretreated, the customer use a “safety walk band” from company 3M. This band is self-adhesive with a rough surface structure and can easily be recognized by the OPT-S.

A redundant solution for rotational speed measurement for wind turbines is necessary. The OPT-S can be used as second sensor, to replace the inductive sensors, and therefore save costs. The assignment of an inductive sensor requires an expensive pretreatment of the hollow shaft / braking disc. The OPT-S can be easily installed. Furthermore the OPT-S can be also used as first sensor instead of the encoder. The encoder is directly connecting to the wind turbine, therefore mechanical vibrations influences the measurement results. Due to the non-contact measurement principle the OPT-S is decoupled of the mechanical vibrations and provides precise and dynamical measurement results.

The OPT-S has been successfully used for rotational speed measurement for two years.

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