

Wind Sensors for all Applications at all Climatic Conditions

In 1859 Wilhelm Lambrecht started the production of meteorological instruments. Today Wilh. Lambrecht GmbH is the most experienced company in the branch. LAMBRECHT products which are characterised by excellent quality, performance and longevity, are supplied to 20.000 customers in more than 150 countries all over the world. The product range was extended by sensors and system solutions for medium budget. The company's ambition was to reduce the price but to hold the high quality. The result is a sensor portfolio of very best price- performance ratio.



Measuring the wind

One of the most reliable and cost-efficient wind measuring techniques is still the mechanical wind sensor with moving parts. All kind of wind events and intensities can easily be measured. These sensors are well-approved for decades; long term measuring lines and statistics are based on rotating wind sensors. LAMBRECHT provides wind sensors for all applications and all climatic conditions. For cold areas, rain, ice, hail and snow condition, LAMBRECHT wind sensors with internal heating device are perfectly dedicated. The LAMBRECHT product line covers the full range of established measuring principles: Sensors with moving parts and without moving parts, hot-wire sensors and ultrasonic sensors, unheated, partly heated and fully heated "ice-free" sensors.

Wind measuring network

Wind must be measured at different levels and with different methods. The combination of satellite pictures, SODAR systems and the ground-based wind measurement with wind sensors allow us to qualify the wind and to forecast his progression. A trans-national wind warning network is the best real possibility to forecast, warn the population and protect goods in time.

All data from the wind measuring network are to be collected at the central office of the Meteorological Service or disaster management authority. Lambrecht Meteoware software enables the observer to get a warning in case of high wind or special out-of-range wind events. The data read out of all wind stations and the evaluation of the wind development tendency can easily be carried out on the basis of this and other related meteorological measurements.

Safe under all climatic conditions

The most important question to be answered is the question about the environmental conditions at the measuring location, respectively the place of installation. Many locations are without challenging weather condition but very often we find really critical weather situation during the course of the year. Extreme solar radiation, sand storms, snow and hail, wind speed on hurricane level, cold temperature down to -40°C , icing risk due to high humidity, aggressive salt spray-water on coastal and off-shore application, break down of main power during cold and icing period and other environmental impacts are to be resisted. Hot temperatures are no defiance for wind sensors, cold climate conditions are challenging them.

Sensor heating, the essential topic

Lambrecht INDUSTRY and PROFESSIONAL wind sensors dispose of an electronically controlled heating within the sensor head. The heating is supplied together with the sensor electronics and prevents icing at the sensor neck around the moving sensor element. With this heating system the blocking of the moving parts can be prevented under most climatologic conditions. For cold climate and high icing risk specially

heated wind sensors PROF-IX2, EOLOS and BLUESONC are the first choice. These sensors are fully heated with 70 / 240 Watt.

Wind Sensor Functionality Details

INDUSTRY		
PROFESSIONAL		
PROFESSIONAL IX 2.0		
ARCO		
BLUESONIC		
EOLOS		

Wind sensors for all climate conditions

- The housing of the sensor series INDUSTRY is made of very robust aluminium. The moving parts are of special glass-fibre armed polycarbonate / PBT. This material is in use for more than 25 years and is approved as highly reliable and resistant against climatic influences. For the most efficient heating, the sensor housing is thermally separated. The sensors series INDUSTRY is the right choice for most industrial standard wind applications.
- For cases with high wind speed, cold climate, sand storms, extreme radiation, snow and hail as well as for coastal and off-shore installation, the sensor series PROFESSIONAL should be preferred. All parts of this sensors are made of best quality aluminium with a specially coated sea water resistant surface protection. The sensor housing is thermally separated. The length of the sensor neck is extended for better resistance against impact of humidity. The PROFESSIONAL wind sensors are most robust mechanical sensors. These sensors are in use at all kinds of on-shore and off-shore wind

application, wind power plants, sea platforms, buoys, crane application and many professional meteorological applications all over the world.

- For installation sites with high risk of icing, specially heated sensors are necessary. The LAMBRECHT PROF-IX mechanical "Ice-Free" wind sensor has an internal heating of 125 Watt, which protects the sensor from icing under most cold climate conditions. The sensor is able to melt down snow and ice and to remain ice-free. Since more applications are to be found at cold climate conditions, there is a high demand for fully heated sensors.

In addition to the mechanical Ice Free sensor PROF-IX2, LAMBRECHT provides for specially heated static wind sensors EOLOS and BLUESONC. These sensors are fully heated with 70 / 240 Watt. The measuring element of the EOLOS sensor is hot, the hat and the housing are also heated. Due to this special heating technology these sensors are well-protected from icing.

All LAMBRECHT sensors fulfil the requirement of EU EMC Directive 89/336/EC and 73/23/EC, Vibration test EN60945/VB0240, Saline mist test EN60954:2002.8.12.3 and IP class test 60529:2000.

The LAMBRECHT product line covers the full range of wind sensors with all kind of established measuring principle: Sensors with moving parts and without moving parts, hot-wire and ultrasonic sensors, unheated and partly heated sensors, fully heated "ice-free" sensors, "all-

aluminium" sensor design, all kind of output signals and protocols, different measuring ranges and resolutions.

The best sensor for the individual application



Lambrecht philosophy is to provide as much sensors as necessary, not as much as possible. Lambrecht's intention is the perfect sensor solution for individual customer demand with the best quality and best price performance ratio in the world of professional meteorological instruments.

LAMBRECHT provides all meteorological instruments, tools and mounting devices as well as software and data loggers for comfortable and easy handling, AWS, rain and wind warning systems as well as compact AWS for industrial applications. LAMBRECHT sensors and systems are the result of 150 years of experience in professional meteorology. LAMBRECHT grants a long term service for all products, spare parts and maintenance support and a fair pricing.

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