

2-axis ultrasonic anemometers

with a difference!



new range of wind speed and direction ultrasonic anemometers with a robust construction, efficient heating and data reliability check for added user confidence

This year saw the launch of the Wind Horizon range of 2-axis ultrasonic anemometers which measure horizontal wind speed and direction. These state-of-the-art sensors complement Biral's popular range of 3-axis ultrasonic anemometers.

The Wind Horizon range shares a number of the key features available in the 3-axis range including:

- **Robust construction:** all Wind Horizons are housed within a stainless steel body making them ideal for use in harsh environments. The ultrasonic transducers are also housed behind stainless steel caps to ensure they are resistant to damage caused by pecking birds.
- **Thermostatically controlled heating:** the Wind Horizon 200 and 400 models have thermostatically controlled heating in place of the standard "on/off" type of heating. This has the advantage of significantly reducing the average power consumed by the sensor when operated in extremely cold conditions meaning that solar / battery or mains power supplies can be of a lower rating. A further enhancement is that the heating is zoned meaning that the heating is only activated on the particular areas of the sensor that are detected as being too cold – again saving energy.
- **Data Validity Check:** to ensure the validity of the readings the sensor performs a number of SDQ (Sonic Data Quality) checks on the collected data prior to data output. This SDQ provides a percentage output to confirm the validity of the data. For example, in normal clear conditions SDQ would register as 100%. However in a heavy rain squall the SDQ may be reported as 70% returning to 100% when the event has passed. Furthermore the Wind Horizon constantly checks for consistent speed of sound readings between both transducer paths. So if a physical impact caused a misalignment between the ultrasonic

sensor heads a significant difference in readings between the two paths will be detected and the data will be flagged as invalid.

These features make the Wind Horizon perfect for a wide range of applications (some photo examples below) including the most demanding environments such as marine and pollution monitoring.

For more information, to request a brochure or to arrange a product demonstration please contact the Biral Met Team.

email: met@biral.com
tel: +44 (0)1275 847787
visit: www.biral.com/newsletter

