

Professional 200

heated 3-axis ultrasonic anemometer

measures horizontal and vertical
wind speed and direction

- 55 W heated measuring head
- no moving parts
- maintenance free rugged design
- up to 30 Hz sampling rate
- wind speed range from 0.01 up to 60 m/s
- verifies and reports data quality
- mains or battery power
- transport case
- field calibration kit

The Professional 200 is a rugged, reliable sensor for the measurement of both horizontal and vertical wind flow.

The Professional 200 has all the benefits of the entry level Professional 100 digital output sensor with the advantage of heating.



Additionally the Professional 200 sensor comes with a field calibration kit for user confidence checks and has the option to extend the wind speed range from 45 m/s to 60 m/s and to add four 0-10 V analogue output channels.

PROFESSIONAL 200

APPLICATIONS

INCLUDE:

mountainous
areas

cold weather
wind monitoring

wind farms

helicopter pads

offshore
monitoring

power stations

The Professional 200 provides the following information in various data outputs which can be polled or output automatically:

- instantaneous and averaged data for the three component wind vectors
- virtual temperature
- horizontal wind speed and direction plus vertical wind component
- chart mode (provides 0-540° wind direction and speed values)
- NMEA value outputs
- raw data mode (uncorrected) or 2D / 3D head corrected data

Data can be averaged by several methods:

- scalar or vectorial
- clock synchronized or running average
- separate output rates and sampling times

Some other important features;

- user definable north orientation (range 0-359° alignment off axis)
- data quality control to perform confidence checks on raw data
- date / time stamps with several options
- check sum information
- calibration validity output monitoring

This range is in continuous development therefore specifications may change without prior notice. E & OE

Specifications

Wind Speed

| | |
|------------|-----------------------------|
| Range | 0 .01 to 45 or 60 m/s* |
| Accuracy | +/- 2 % (full scale output) |
| Resolution | 0.01 m/s (steps) |

Wind Direction

| | |
|------------|---------------------|
| Range | 0 - 359° or 0- 540° |
| Accuracy | +/- 2° |
| Resolution | 0.4° (steps) |

Digital Output

| | |
|-----------|--------------------|
| Type | RS232 OR RS422 |
| Rate | 30 Hz |
| Averaging | up to 1800 seconds |

Analogue Output x 4 *

| | |
|------------|----------------|
| Type | 0-5 V, 0- 10 V |
| Resolution | 12 bit |
| Scalable | Yes |

Customised models incorporating features from more than one model are available, please contact Biral

** requires optional extension*

Heating

| | |
|--------------|---------------|
| Power output | 55 W |
| Type | PTC, 2 levels |

Power

| | |
|--------------|-------------------------------|
| Requirements | 24 VDC or 115 / 230 VAC |
| Current draw | 1180 mA (@ 24 VDC and heated) |

Data

| | |
|-------------------|---------------------------|
| Sonic temperature | -30°C to 50°C |
| Units of measure | m/s, knots, mph, km/h, °C |

General

| | |
|-----------|--|
| IP rating | 65 |
| Size | 32 cm x 69 cm |
| Weight | 2.8 kg |
| Materials | Sensor head - stainless steel (V4A) Electronic housing - powder coated die-cast aluminium |

Included with Professional 200

| | | | |
|-----------------------|---|---------------|---|
| Field Calibration Kit | ✓ | 12 m Cable | ✓ |
| Transport Case | ✓ | Mains Adapter | ✓ |