

ULTRASONIC ANEMOMETER 2D »compact«

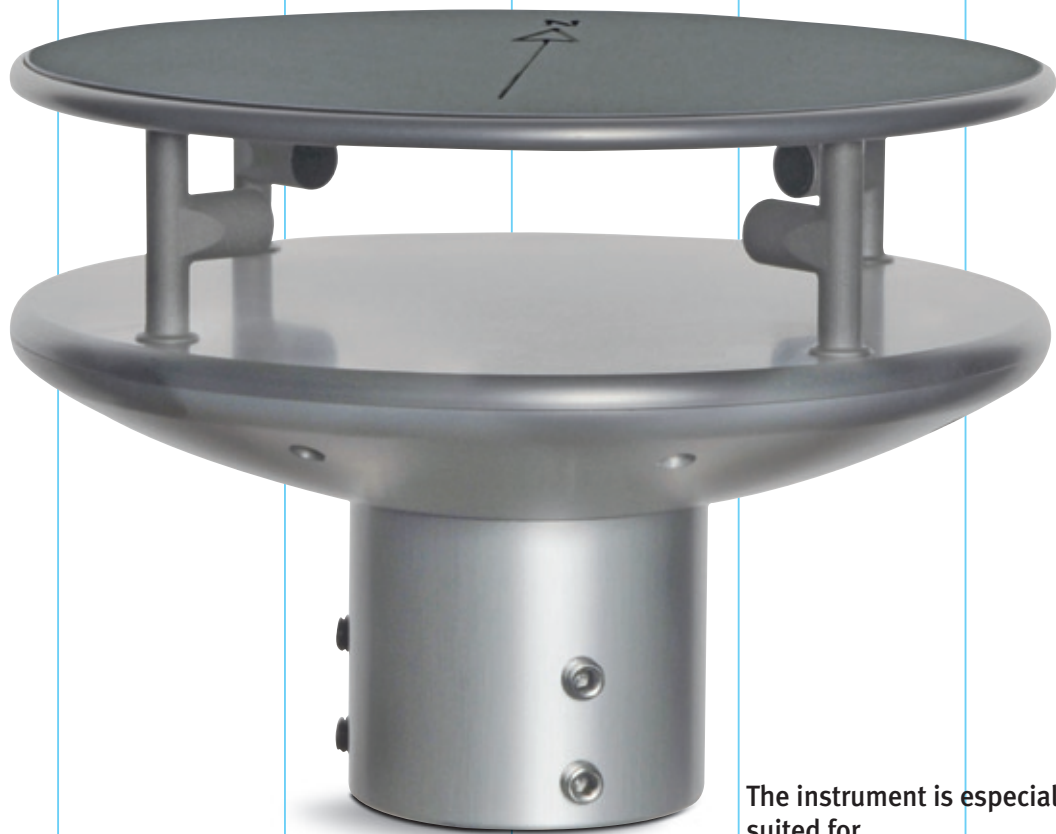
Measurement of
wind direction and speed

- rugged and reliable
- highest precision and accuracy
- maintenance free / heated
- digital and analogue interface

Instruments for:
METEOROLOGY
HYDROLOGY
WATER QUALITY
AIR QUALITY
INDOOR CLIMATE
VENTILATION

Thies
CLIMA

KRITECH



The instrument is especially
suited for

- industrie automation
- regenerative power generation,
wind power plants
- building control
- traffic control
- marine application
- offshore application
- meteorology, climatology



Ultrasonic Anemometer 2D »compact«

The combination of approved quality and advanced technology

- Meteorological excellent performance also for use in harsh environmental conditions
- compact
- rugged
- reliable

The Ultrasonic Anemometer compact serves for the 2-dimensional acquisition of the horizontal components of the wind velocity, the wind direction and the acoustic-virtual temperature.

The following measuring values are available:

- Orthogonal wind velocity vectors (X- and Y-distance)
- Scalar / vectorial wind velocity wind direction
- Acoustic-virtual temperature
- NMEA data protocol
- ASCII THIES FORMAT
- Analogue data output *

The instrument is especially suited for the use in the fields of

- Regenerative power generation, wind power plants
- Industry automation
- Wind warning devices, building construction and building control
- Traffic control
- Marine application
- Meteorology
- Climatology

Order No. 4.3871.xx.xxx

The measurement principle allows, compared to the classic anemometers, an inertia-free measurement of running variable dimensions with highest precision and accuracy.

The measurement values can be output digitally and/or in analogue form.

The serial or analogue output of the data is carried out alternatively as instantaneous value or as gliding mean value with selectable time frame.

If necessary, the instrument is automatically heated in case of critical ambient temperatures. Thus, the possibility of malfunction, caused by icing, is minimized. The sensor arms and the ultrasonic sensors as well as housing parts are heated.

* only in HD (half duplex) operation

Patented
EP 1 448 966 B1
US 7,149,151 B2

Technical Data

Velocity

Measuring range
Resolution

0-60 m/s
0.1 m/s (standard)
0.01 m/s (selectable)
±0.2 m/s rms (@ < 5 m/s)
±2% rms (> 5 m/s)

Accuracy

Direction

Measuring range
Resolution

0-360°
1° (standard)
0.1° (selectable)
±2° @ v > 1 m/s

Accuracy

Virtual Temp.

Measuring range
Resolution
Accuracy

-50 ... +70 °C
0.1 K
±2 K

Data output digital

Interface
Baud rate
Output
Output range
Status signal

RS 485 / 422
1200-921600 Bps
Instantan. values, mean values
0.1 Hz ... 100 Hz
Heating,
distance error,
distance temperature

Data output analogue

Electr. output
for WV, WD
Current output
Voltage output
resolution

0(4) ... 20 mA
0(2) ... 10 V
max. 300 Ω load
min. 2000 Ω
16 bit

General

Bus operation
Operation voltage
Electronic
with heating
heating power can be limited
via software to several other
max. power consumptions
Electr. connection
Housing
option
Protection
Dimension
Mounting
Weight

Up to 99 instruments
8-60 V DC or 12-42 V AC/1.2 VA
24 V AC/DC, max. 250 VA
8 pol. plug
Aluminium, anodised,
seawater-resistant
hard-anodized for
offshore application
IP 67
Ø 200 x 129 mm
mast tube 1.5"
approx. 2 kg



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