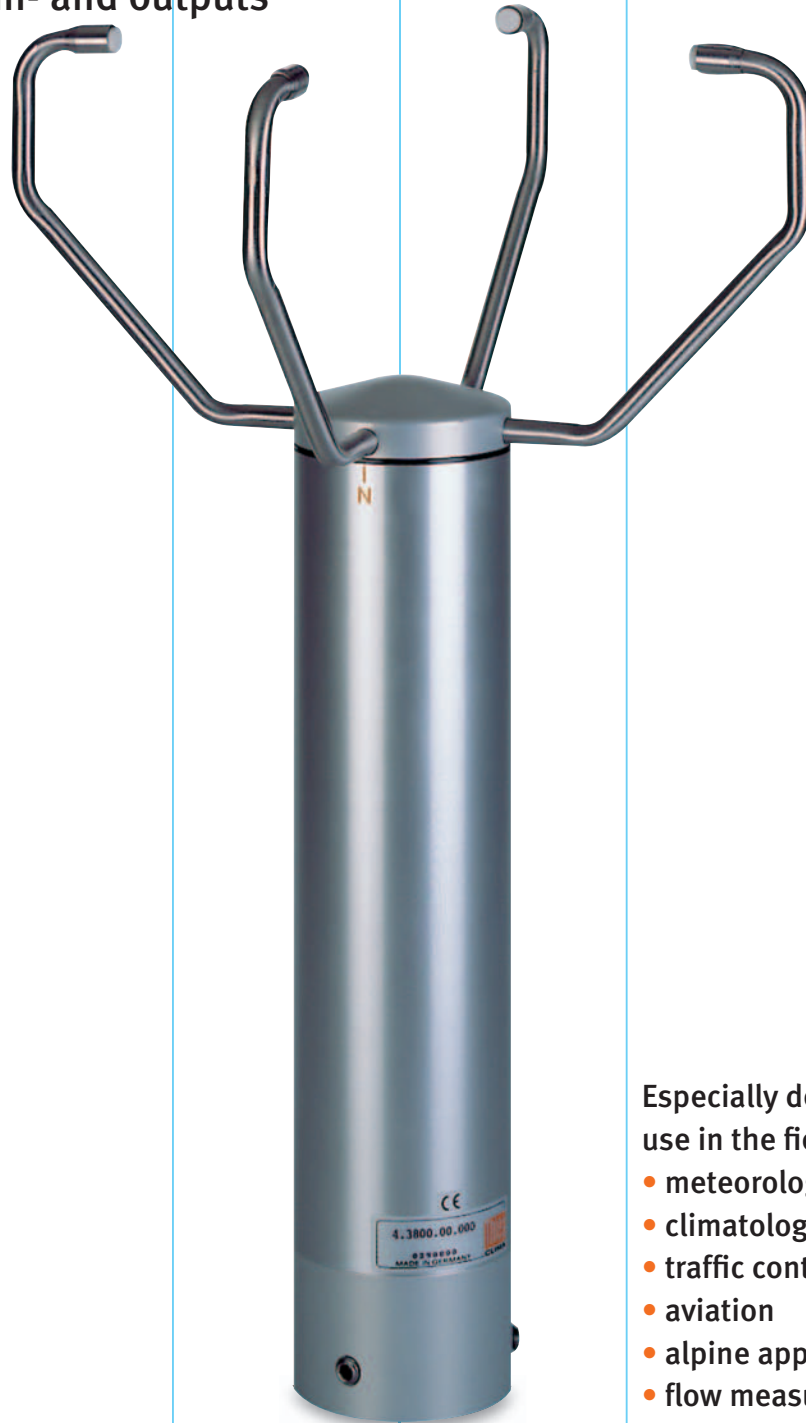


ULTRASONIC ANEMOMETER 2D a

Measurement of
Wind direction and
Wind velocity

- highest precision
- maintenance free
- with heating
- digital /analogue in- and outputs



Especially designed for
use in the fields of

- meteorology
- climatology
- traffic control
- aviation
- alpine application
- flow measuring



Ultrasonic Anemometer 2D a

The Ultrasonic-Anemometer detects the horizontal component of the wind speed and wind direction. The anemometer is free from wear and maintenance, and needs no further calibration. For winter operation the instrument is equipped with a heating. An alternative model with additional heating elements guarantees a reliable operation even under extreme or harsh climatic conditions. The electronics of the instrument is based on the latest DSP (digital signal processor) technology.

The measuring principle allows an inertia-free measurement of the running variable dimensions with ultimate

precision. The data output for wind direction and wind speed can be effected as instantaneous or gliding mean value (VDI 3786 sheet 2), alternatively as analogue or digital signal. The averaging procedure can be set alternatively in vectorial or scalar form. Another feature is to use the analogue channels as signal input, for example for external sensors for temperature and rel. humidity.

The digital interface (RS422/485) with an integrated command interpreter allows the access to all data, and status information as well as the individual parameterisation of a user-specific output data telegram.

Technical Data:

Wind speed

Measuring range
Resolution
Accuracy

0 - 65 m/s
< 0,1 / 0,01 m/s
+/- 0,1 m/s rms (0 ... 5m/s)
+/- 2,0 % rms of m.v. (>5m/s)

Wind direction

Measuring range
Resolution
Accuracy

0 - 360 ° / 0 - 540°
1°
+/- 1°

Virtual Temperature

Measuring range
Resolution
Accuracy

-40 ... +70°C
0,1 K
+/- 0,5 K

Data output digital

Baud rate
Dataformat

RS 422 / RS 485 FD/HD
1200 – 921600
NMEA V183, or selectable
Instantaneous values
Gliding mean values
0,5 sec ... 100min.
1/ms up to 60 seconds
selectable

Output rate

Analogue Outputs

Resolution

Wind direction and wind speed
0/2 - 10V or 0/4 - 20 mA
12 Bit

Output rate

Analogue Inputs

Resolution
Scanning

Instantaneous values
Gliding mean values
0,5 sec ... 100min.
1/100ms
3 inputs 0 - 10 V
12 Bit
100 ms / channel
Output of data in the user-specific data telegram.
When analogue inputs are in operation, no analogue output is possible.

General

Internal meas. rate

1500
measurements /second at 25 °C

Bus operation

Temp. range

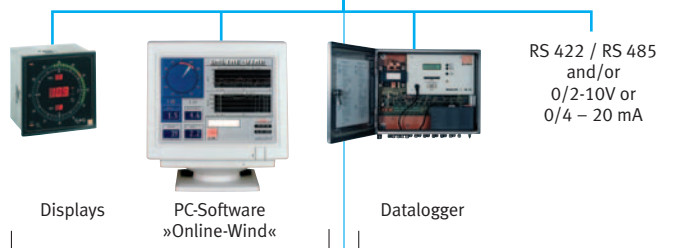
Operat. voltage

up to 99 instruments
Firmware can be uploaded
-40°C ... +70°C
12...24 V AC/DC 3VA max. 70VA
Heating to be switched on/off by software
IP 65
V4A stainless steel
on mast tube 1,5“

Protection

Housing

Mounting



- Visualisation
- Recording
- Monitoring

- Recording
- Controlling
- Data Processing



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