

# Thies Ultrasonic Anemometer 3D

Order-No: P 6007 H

- Measurement of wind direction & speed in 3 dimensions X, Y
- Highest precision
- Real-time measurement
- Maintenance-free / heatable
- Digital/analog outputs and inputs



## Description

The Ultrasonic Anemometer 3 D serves for the measurement of the wind direction and the wind velocity from all spatial directions. The maintenance-free and wearless anemometer needs no re-calibration, and is equipped with a heating for winter operation even under extreme conditions.

All calculations are carried out by a high-capacity digital-signal-processor (DSP) within the propagation time of the ultrasonic signals with an accuracy basis of 32 bit.

The instrument offers comprehensive statistic functions such as gliding averaging, standard deviation, co-variance etc., which can be selected via the digital interface. The gliding averaging can be set optionally in vectorial or scalar form, identically or differently for each parameter.

## Specification Thies Ultrasonic Anemometer 3D: P 6007 H

### Wind Speed &

#### Wind Direction:

Measuring Range	0.01 - 65 m/s azimuth 0° - 360° 0.01 - 65 m/s elevation 0° - 360°
Accuracy	WG ± 0.1 m/s, (< 5 m/s) 2 % (> 5 m/s)
Resolution	± 1°

### Acoustic Virtual Temperature:

Measuring Range	-40.....+70°C
Accuracy	± 0.5° K in the range from -40.....+70°C

### Output of measured values:

Measuring Rate	1 msec to 60 seconds, selectable in 1-msec increments
Output rate	1 msec to 60 seconds, selectable in 1-msec increments
Data Output Digital	RS 485 / RS 422, bus operation, FD/HD
Baud rate	1200 to 921600 Bps
Analog Output	3 analogue channels for output of X,Y, Z vector-components 0-10 V load, 4000 ohms, 4-20 mA to 400 ohms load
Analog Inputs	3 x standard, 2 x optional; voltage inputs 0-10 V, resolution 16 bit, measurement error < 0,1%
Output Format	ASCII Thies, NMEA 0183 version 3, user-definable, status

### Features:

Firmware Update	Upload via serial interface (RS485)
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### General:

Operating Voltage	12-24 V AC/DC current consumption: 3 VA, heated 150 VA The heating, which can be switched off, is temperature-controlled
Temperature Range	-55°C to + 70°C
Protection	IP 65
Manufacturer	Thies