

Ultrasonic Anemometer 2D



Description

Sensor for the inertia-free measurement of the horizontal wind speed. As the sensor contains no moving parts, it is maintenance-free.

Two opposite pairs of ultrasonic transducers measure the horizontal components of the wind vector. A built-in processing unit converts the raw signals into analog signals. Additional serial RS232 and RS485 ports allow the direct connection to the networked data logger **blueberry NDL 485**, a PC, or an industrial controller.

Technical Data

Sensor

Sensing element Ultrasonic transducers

Data processing Microprocessor

Outputs

Analog0..70 m/s = 0..5 V
 0..360° = 0..5 V

Digital..... RS232 or RS485,
1200, 2400, 4800, 9600, 38400 baud

Data formatsASCII Text, RMYT, NMEA, SDI-12

Resolution

Wind speed.....0.1 m/s

Wind direction 1°

Accuracy

Wind speed.....	0..5 m/s	±0.1 m/s
	5..30 m/s	±2% of reading
	>30 m/s	±3% of reading

Wind direction±2°

Power Supply

Supply voltage 9..16 VDC

Power consumption 140 mA max., 30 mA average typical, <1 mA standby

Heating

Heating power Not heated. A heated version is available with
PatNo. 0252.

Casing

Material Anodized aluminium / plastic

Protection class IP 65

Dimensions ø170 x 340 mm

Weight 0.7 kg

Mounting..... The sensor mounts on a standard one inches pipe with
ø34 mm outside diameter

Electrical Connection

Junction box Terminal strips

Environmental Conditions

Operating temperature..... -50..+50 °C

Relative humidity..... 0..100%



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