

Ultraschall Anemometer 2D Compact

The following measurement data are available:

- Orthogonal wind velocity vectors (X- and Y-distance)
- Scalar / vectorial wind velocity wind direction
- Acoustic-virtual temperature

The instrument is especially suitable for the use in the fields of:

- Regenerative power generation, wind power plants
- Industry automation
- Wind warning devices, building construction and building security
- Traffic engineering, aviation and navigation
- Meteorology
- Climatology

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

The data can be served

- analogically*, as standard signal or / and digitally in
- ASCII THIES- Format or
- binary as MODBUS RTU protocol

If necessary, the instrument is automatically heated at critical ambient temperatures. Thus, the risk of malfunction caused by icing is minimized.

The model no. 4 3875 2x xxx is equipped with an additional baro transmitter.

* only in HD (half duplex) operation
no output of virtual temperature

Specification

Part number: 4.3875.xx.xxx

Wind speed

Measuring range	0 ... 75 m/s
Resolution	0.1 m/s (standard) 0.01 m/s (special telegrams)
Accuracy	±0.2 m/s rms (5 m/s) ±2 % rms (5 m/s ... 60 m/s)

Wind direction

Measuring range	0 ... 360 °
Resolution	1 ° 1 ° (standard)

Accuracy	±2 ° WS › 1 m/s
Virtual temp.	
Measuring range	-50 ... +70 °C
Resolution	0.1 K
Accuracy	±2 K
Data output digital	
Interface	RS485 / RS422
Baudrate	1200 ... 921600 Baud
Data values	instant. values, average values, standard deviation
Output range	1 per 10 msec up to 1 per 10 sec
Status signals	heating, distance error, Temperature of meas section
Protocol	ASCII / MODBUS RTU
Data output analog	
Wind speed	0 ... 20 mA 4 ... 20 mA 0 ... 10 V 2 ... 10 V
Stromausgang	max. 300
Wind direction	0 ... 20 mA 4 ... 20 mA 0 ... 10 V 2 ... 10 V
Voltage output	min. 3000
Resolution	16 bit
Data input analog (alternative)	
Chanel	3
Resolution	16 bit
Operating voltage	
Electronic	8 ... 60V DC or 12 ... 42 V AC / 1.2 W
Heating	24 V AC/DC, max. 250 W
Heating	
Heated components	bottom plate, cover plate, ultrasonic transducers
General	
Bus operation	up to 98 sensors
Electr. connection	8 pol. connector
Mounting	e.g. Mast tube Ø 50mm
Housing	AL, hard-anodized
Protection	IP 68
Dimension	Ø 200 mm x 144 mm
Weight	approx. 2 kg

Versions

As per 4.3875.xx.xxx, but:

Product number 4.3875.00.340

Data output digital

Baudrate	9600 Baud
Duplex mode	Full duplex
Data telegram	VDT-Telegram (Telegram2)
Output range	10 per 1 sec

Product number 4.3875.01.300

Data output digital

Baudrate	9600 Baud
Duplex mode	Half duplex
Data telegram	no independent data output

Data output analog

Type	2 x 0 ... 20 mA
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Product number 4.3875.01.311

Data output digital

Baudrate	9600 Baud
Duplex mode	Half duplex
Data telegram	no independent data output

Data output analog

Type	2 x 4 ... 20 mA
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Heating

Heating control	HP11
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Product number 4.3875.02.300

Data output digital

Baudrate	9600 Baud
Duplex mode	Half duplex
Data telegram	no independent data output

Data output analog

Type	2 x 0 ... 10 V
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Product number 4.3875.01.381

Data output digital

Baudrate	9600 Baud
Duplex mode	Half duplex
Data telegram	MODBUS RTU

Data output analog

Type	2 x 4 ... 20 mA
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Product number 4.3875.01.310

Data output digital

Baudrate	9600 Baud
Duplex mode	Half duplex
Data telegram	no independent data output

Data output analog

Type	2 x 4 ... 20 mA
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Heating

Heating control	HP10
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Product number 4.3875.00.260

Data output digital

Baudrate	4800 Baud
Duplex mode	Full duplex
Data telegram	NMEA telegram

Heating

Heating control	HP11
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Product number 4.3875.01.319

Data output digital

Baudrate	9600 Baud
Duplex mode	Half duplex
Data telegram	no independent data output

Data output analog

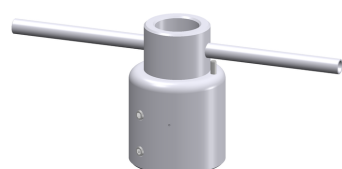
Type	2 x 4 ... 20 mA
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Heating

Heating control	HP0
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Accessories

Product	Product name	Brief description
	Connecting cable 50775x	Suitable cable for 4.3820/30/75/80/81 • length: see versions General Cable length see versions Cable PUR 4 x 0,75 +2x2x0,14 mm²



Northring for
Ultrasonic
anemometer
508696

The adapter is used for the north alignment of a Ultrasonic anemometer.

General

Length	90 mm
Material	Alluminum anodized (AlMgSi1)
Weight	0.4 kg
Mounting	for mast Ø 50 mm for sensor Ø 50 mm



Meteo-Online
9.1700.98.x01

Meteo-Online is a software for detecting, filing, and displaying data of meteorological measuring instruments. The display of the data is carried out graphically as diagram and/or as text The user has the possibility to place the display-elements free on the screen, and to save them.

Data display

Monitor - display	- Values - Diagrams - Tables - Windrose - Time - Date
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Compatibility

Connectable instruments	- US-Anemometer - Datalogger - Clima Sensor - Weather station WSC11 - Wind display - etc.
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System requirements	PC mit - Prozessor > 1 GHz - RAM > 1 GB
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Operating system	- Windows 2003 SP2 - Windows Server 2008 - Windows 7 - Windows Server 2008 R2 - Windows 7 SP1 - Windows Server 2008 R2 SP1 - Windows 8 - Windows 10
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