

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 rate	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 Ω
Wind direction	0 ... 20 mA 4 ... 20 mA 0 ... 10 V 2 ... 10 V
Voltage output	min. 3000 Ω
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 rate	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
Heating	
Heating control	HP11

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

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

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
Heating	
Heating control	HP10

Product number 4.3875.00.260

Data output digital

Baudrate	4800 Baud
Duplex mode	Full duplex
Data telegram	NMEA telegram
Heating	
Heating control	HP11

Product number 4.3875.01.319

Data output digital

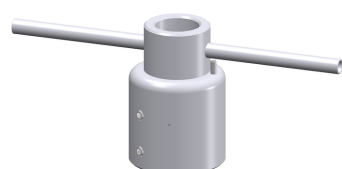
Baudrate	9600 Baud
Duplex mode	Half duplex
Data telegram	no independent data output

Data output analog

Type	2 x 4 ... 20 mA
Heating	
Heating control	HP0

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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