

WIND MEASURING TECHNOLOGY

Ultrasonic Anemometer WP

Part number: 4.388x.xx.xxx

It has been developed especially for the application in harsh environments, and is eminently suited for the use on wind power plants thanks to the compact construction and low weight.

The serial or analogue output of the data occurs optionally as instantaneous value or as moving average value with settable time frame.

If necessary, the instrument is automatically heated at critical ambient temperatures. The risk of malfunction by freezing is thus minimized. The ultrasonic transducers are heated, as well as all essential housing components.



Specification

Part number: 4.388x.xx.xxx

Wind speed

Measuring range	0 ... 75 m/s
Resolution	0.1 m/s (standard) 0.01 m/s (user defined)
Accuracy	±0.2 m/s rms (5 m/s) ±2 % rms (5 ... 50 m/s)

Wind direction

Measuring range	0 ... 360 °
Resolution	1 ° 1 ° (standard) 1 ° (user defined)
Accuracy	±2 ° @ 2 m/s WS 50 m/s

Virtual temp.

Measuring range	-40 ... +70 °C
Resolution	0.1 K

Data output digital

Interface	RS485 / RS422
Baudrate	1200 ... 921600 Baud

Data values	instant. values, average values
Output range	1 per 100 msec up to 1 per 50 sec
Status signals	heating, Meas section error, Temperature of meas section
Protocol	ASCII, MODBUS RTU, NMEA WV
Data output analog	
Wind speed	0 ... 20 mA 4 ... 20 mA 0 ... 10 V 2 ... 10 V
Stromausgang	max. 500 ê
Wind direction	0 ... 20 mA 4 ... 20 mA 0 ... 10 V 2 ... 10 V
Voltage output	min. 50 kê
Resolution	16 bit
Operating voltage	
Electronic	8 ... 40V DC or 12 ... 28 V AC / 2.5 W
Heating	24 V AC/DC, typ 100 W
Heating	
Heated components	base plate, cover plate, connecting pipes, ultrasonic transducers
General	
Bus operation	up to 98 sensors
Electr. connection	8 pol. connector
Housing	seawater-proof, stainless steel (V4A)
Protection	IP 67
Dimension	Ø 100 mm x 120 mm

Versions

As per 4.388x.xx.xxx, but:

Product number 4.3882.00.000

Data output digital	
Protocol	ASCII
General	
Mounting	on a mast tube Ø 34mm
Weight	0.9 kg

Product number 4.3882.00.001

Data output digital	
Protocol	MODBUS
General	
Mounting	on a mast tube Ø 34mm
Weight	0.9 kg

Product number 4.3883.00.000

Data output digital	
Protocol	ASCII
General	
Mounting	on a mast tube Ø 50mm
Weight	1.1 kg

Product number 4.3883.00.001

Data output digital	
Protocol	MODBUS
General	
Mounting	on a mast tube Ø 50mm
Weight	1.1 kg

Accessories

Product	Product name	Brief description
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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 mm ²	

