

Wind Transmitter "First Class" Advanced X

Part number: 4.3352.00.4xx

The wind transmitter is designed for the acquisition of the horizontal component of the wind velocity in the field of meteorology and environmental measuring technology, evaluation of location, and measurement of capacity characteristics of wind power systems. In the plain country the wind transmitter meets all requirements of IEC 61400-12-1 Edition 2.0 for an Instrument of the accuracy class 0.65.

Special characters are a defined and optimised, dynamic behaviour also at high turbulence intensity, minimal over-speeding, and a low starting value.

The measuring value is available at the output as digital signal and via RS485 interface. It can be transmitted to display instruments, recording instruments, data loggers as well as to process control systems. The serial interface supports the THIES- ASCII and the MODBUS RTU- format.

For winter operation the instrument (4.3352.00.400) is equipped with an electronically regulated heating, which guarantees a smooth running of the ball bearings, and prevents the shaft and slot from icing-up.



Specification

Part number: 4.3352.00.4xx

Wind speed	
Measuring range	0 ... 75 m/s
Accuracy	1 % of meas. value (0.3 ... 50 m/s) or ±0.2 m/s
Linearity	r > 0.99999 (4 ... 20 m/s)
Inclined flow	0.1% (mean deviation from cosinus line at 12 m/s ; ±20 °)
Delay distance	3 m (aac. to ASTM D 5096-96)
Air pressure	
Measuring range	300 ... 1100 hPa
Accuracy	±1 hPa @ 20 °C
Indication	
Measuring range	-89.9 ... +89.9 °
Accuracy	±1 °
Measuring axis	X, Y, Z
Vibration	
Measuring range	0 ... 50 Hz
Accuracy	±0.4 Hz
Measuring axis	X, Y, Z

Acceleration

Measuring range	±8 g
Accuracy	±30 mg

Data output digital

Interface	RS485
Baudrate	1200 ... 57600 Baud
Duplex mode	Half duplex
Protocol	ASCII / MODBUS
Frequency	1082 Hz @ 50 m/s

Operating voltage

Electronic	3.7 ... 42V DC 8mA typ. 100mA max. (with heating pressure sensor on) approx. 0.9mA in power saving mode
Heating	24 V AC/DC +-20%, max 25 W

General

Ambient temp.	-50 ... +80 °C
Electr. connection	8 pol. plug connection
Mounting	onto mast tube Ø 1"
Protection	IP 55
Survival speed	80 m/s (min. 30 minutes)
Weight	0.5 kg
Mounting	Ø 35 x 25 mm
Material housing	aluminium, anodised
Material cup star	carbon-fiber glass reinforced

Versions

As per 4.3352.00.4xx, but:

Product number 4.3352.00.400

Data output digital

Protocol	THIES - ASCII
----------	---------------



Product number 4.3352.00.401

Data output digital

Protocol

MODBUS - RTU

Accessories

Product	Product name	Brief description	
	Traverse for Wind Transmitters "First Class" 4.3174.00.000	For mounting the wind speed transmitter and wind direction transmitter jointly onto a mast.	
		General	
		Height	0.76 m
		Mounting	on mast tube Ø 1,5``
		Material	aluminium, anodised (AlMgSi0.5)
		Sensor distance horizontal	0.6 m
		Sensor distance vertikal	0.2 m
		Weight	3 kg
		Mounting	Ø 34 mm for First Class wind sensors
	Hanger 1m First Class 4.3184.01.000	The hanger is used for the lateral mounting of a wind transmitter, First Class type, onto a mast	
		General	
		Length	1 m
		Mounting	at mast tube Ø 40 ... 80 mm
		Material	aluminium (AlMgSi0.5)
		Weight	1.5 kg
		Mounting	Ø 34 mm