

WIND MEASURING TECHNOLOGY

Wind Transmitter "First Class" Advanced X

Part number: 4.3352.10.4xx

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.



Specification

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| 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 at12 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 | without heating |
| 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 4.3352.10.4xx, but:



Product number 4.3352.10.400

| | |
|----------------------------|---------------|
| Data output digital | |
| Protocol | THIES - ASCII |

Product number 4.3352.10.401

| | |
|---------------------|--------------|
| 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 |