

ULTRASONIC ANEMOMETER

WINSON





Description

WINSON is an ultrasonic anemometer for the measurement of wind speed and wind direction. The sensor exploits the principle for which the acoustic waves, along their path, are influenced by the movements of the air they pass through. The sensing element is composed of 3 transducers with dual function of transmitters and receivers.

WINSON is much more performant than the traditional wind sensors. Indeed, it simultaneously carries out 6 measurements on three different sonic trajectories generating a very precise measuring model, especially at higher ranges. Usual wind transducers instead can develop only 2 acoustic trajectories, and then they give as output only 4 measurements at the same time.

The sensor is supplied with power and signal cable (12m).



Main feautures

- High accuracy
- · Reduced wing profile
- · Analog and digital electrical outputs
- · Diagnostic system for reporting measurement errors

Technical Specifications*

Measurement range 0 ÷ 75 Resolution 0.1 Accuracy 2% in the range 2 ÷ 30, < 5 % outside 2 ÷ 30 range Mind direction [*]	Measurement Performance				
Resolution	Wind speed [m/s]				
Name	Measurement range	0 ÷ 75			
Wind direction [°] Weasurement range 0 ÷ 359.9 Accouracy ±3 ***********************************	Resolution	0.1	0.1		
Measurement range 0 ÷ 359.9 Resolution 0.1 Accuracy ±3 Deparating conditions Image: Resolution of the properature of the pr	Accuracy	2% in the range 2	2 ÷ 30, < 5 % outside 2 ÷ 30 ra	ınge	
Accuracy	Wind direction [°]				
Deparating conditions Temperature -40°C ÷ +60°C -40°M	Measurement range	0 ÷ 359.9			
### Comparating conditions Image: All Comparations Comparati	Resolution	0.1	0.1		
Temperature -40°C ÷ +60°C -4umidity 0% ÷ 100% Dutputs RS485 Modbus Wind speed, wind direction, sonic temperature BDI – 12 Wind speed, wind direction, sonic temperature Tension Configurable (0 ÷ 2V) wind speed and direction Power supply and consumption Voltage supply 10 ÷ 24 Vdc For wind speeds over 30 m/s, a 12Vdc power supply is required in order to achieve the declared performance Consumption (mA) Min Typical Max Absorbed current during he measurement (8 samples/second) Wechanical specifications Protective body Polipropilene and Poliammide Level of protection (IP) Weight 620 g Dimensions Ø = 160 mm; Height: = 190 mm Installation mast size (diameter) External ØMMX = 50 mm, Internal ØMMN = 45 mm Electrical connections Ordering codes Heated sensor and compass output RS485-Modbus serial, SDI-12 serial, Tension PSM-t035-WINSON-1	Accuracy	±3			
Humidity 0% ÷ 100% Outputs RS485 Modbus Wind speed, wind direction, sonic temperature BDI − 12 Wind speed, wind direction, sonic temperature Fension Configurable (0 ÷ 2V) wind speed and direction Power supply and consumption Voltage supply 10 ÷ 24 Vdc Power supply Forwind speeds over 30 m/s, a 12Vdc power supply is required in order to achieve the declared performance Consumption (mA) Min Typical Max Absorbed current during he measurement (8 samples/second) Mechanical specifications Protective body Polipropilene and Poliammide Level of protection (IP) IP66 Neight 620 g Dimensions Ø = 160 mm; Height: = 190 mm Installation mast size (diameter) External ØMAX = 50 mm, Internal ØMIN = 45 mm Electrical connections Ordering codes Heated sensor and compass output RS485-Modbus serial, SDI-12 serial, Tension PSM-t035-WINSON-1	Operating conditions				
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	RS485-Modbus serial output, SDI-12 serial output, Tension output			PSM-t035c-WINSON-2	





