## ULTRASONIC WIND SPEED AND WIND DIRECTION SENSOR TS235

The TECMES Model TS235 anemometer is a static 2-axis ultrasonic sensor used to measure wind speed and direction, U-V Cartesian components of wind speed.

Wind speed and direction are determined by measuring the transit time of the ultrasonic pulses between two pairs of ultrasonic transducers.

Serial interfaces RS232, RS485, and SDI-12 with NMEA communication protocols, and SDI-12 are available on the sensor.
All versions have two analog outputs for wind speed and direction, factory configurable between 4 to 20 mA (standard), 0 to 5 V .

The option can also be supplied with heating, which prevents snow accumulation and ice formation, allowing precise measurements in extreme environmental conditions.

The installation is carried out on a 1.5 "or 2 " mast by means of the accessory that accompanies the sensor. The electrical connection is made through the 12-pin connector located on the bottom of the instrument.
The low consumption of the instrument allows installation in remote sites, with power from photovoltaic panels and backup battery.

The absence of moving parts minimizes instrument maintenance.

## Technical specifications

## Direction of the wind

Measurement range: from 0 to $360^{\circ}$
Resolution of the measure: 1 degree
Accuracy: 3 degrees

## Wind speed

Measurement range: from 0 to $65 \mathrm{~m} / \mathrm{s}$
Resolution of the measure:
$0,1 \mathrm{~m} / \mathrm{s}$
Accuracy: $\quad \pm 0.5 \mathrm{~m} / \mathrm{s}$ for speeds lower than $5 \mathrm{~m} / \mathrm{s}$; $10 \%$ for speeds greater than $5 \mathrm{~m} / \mathrm{s}$.

Operating temperature: $-10 /+55^{\circ} \mathrm{C} ;-40 / 55^{\circ} \mathrm{C}$ heated version. 0-100\% HR

Power Supply: 9at16VDC; 9at36 VDC
Building: stainless metal
Dimensions: high: 390 mm ; width: 280 mm ; depth: 280 mm
Weight: $\quad 1,7 \mathrm{~kg}$


## CONNECTIVITY

Communication ports: RS-232/RS-485/SDI-12

Analog outputs:
4-20 mA; 0-5V upon request
Output format:
NMEA standard / extended
Communication speed: 300 a 115200 baudios, Programmable.
Programmable units:
meters per second, kilometers per hour, knots
Setting: by means of software provided that allows to configure the operating parameters

MODEL TS235-CA
It has a heating system in each of the arms of the anemometer.

Power supply: 24 - 36 V ca ó cc.
With temperature control included

## *Other specifications and ranges available upon request.

