



A new way **to read the wind!**



- **The company**
- **The products**
 - > **How does it work**
 - > **The products range**
- **Applications**

ULTRASONIC
WIND SENSOR

LCJ CAPTEURS



A new way **to read the wind!**



LCJ CAPTEURS

- **manufacture ultrasonic wind sensors since 1999**
now manufacturing 5th generation of sonic sensors
6 500 of our sonic sensors in use all around the world
- **cover the needs over many applications:**
Defense
Agriculture
Intelligent-building...

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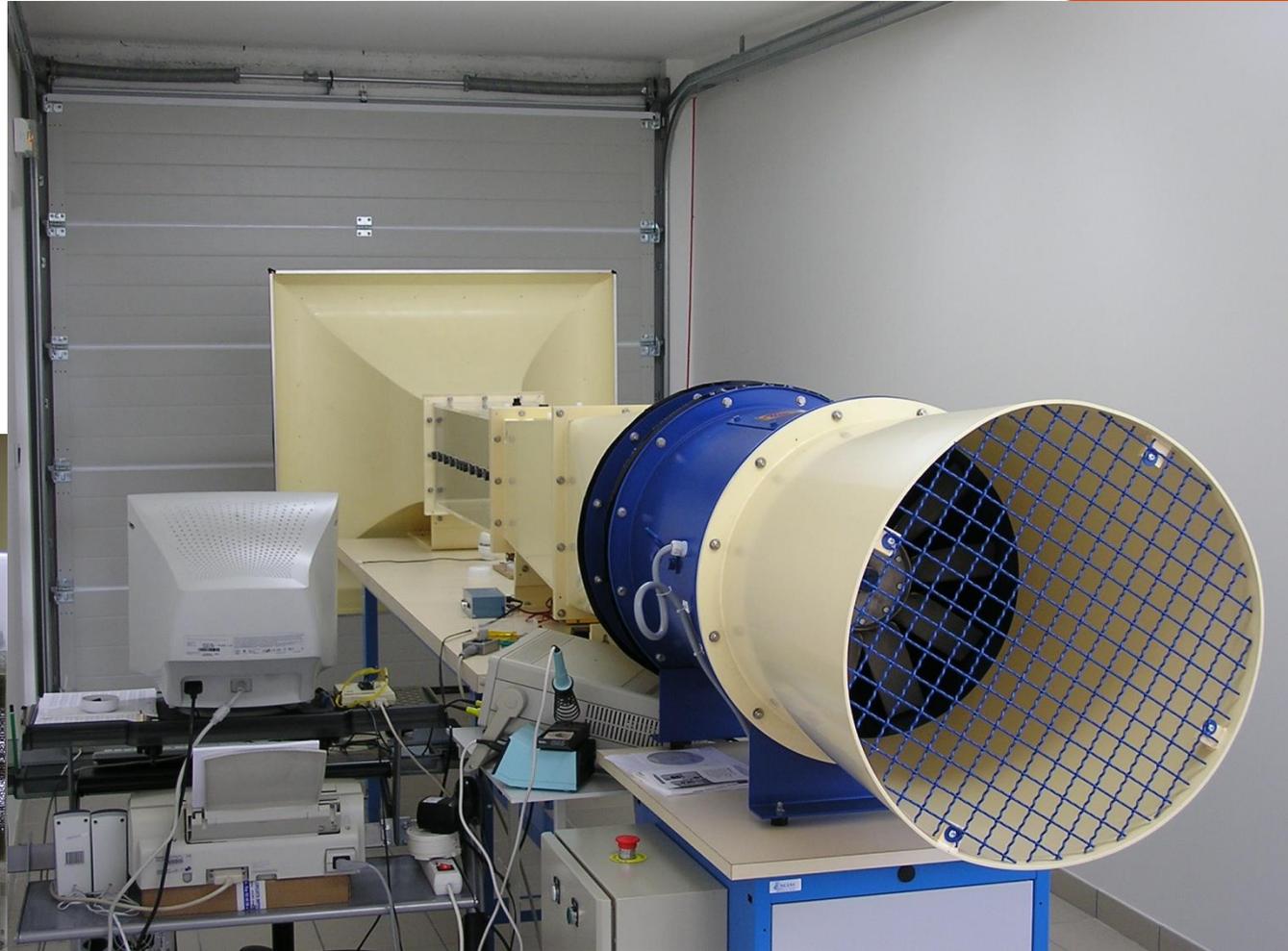
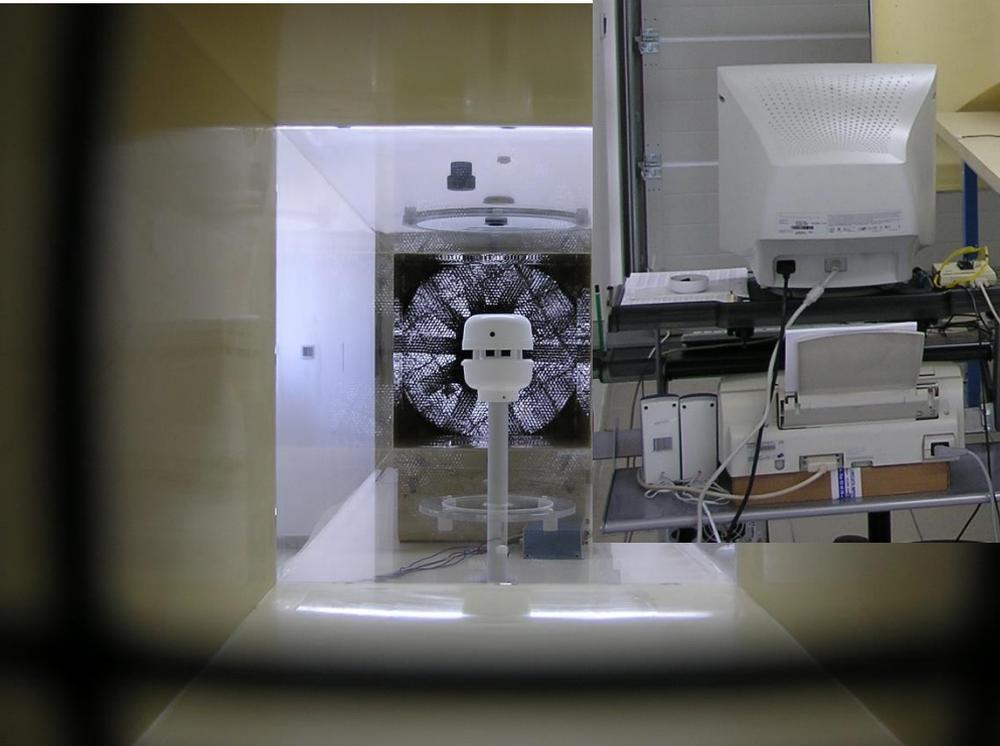
LCJ CAPTEURS

- **commitment to quality: reliability and accuracy**
Each unit set-up and tested in our wind tunnel and climatic chamber
All data logged for each product against serial number
- **proved robustness and accuracy on the marine sector**
accuracy on long term and NO maintenance
- **Each unit is tested with in-house lab equipment**

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- **1999: first ultrasonic wind sensor on the market!**

Our mission: bring the ultrasonic wind sensor's technology to the leisure marine market with a light and compact unit at an affordable price

the CV3F offers a +/- 7% accuracy for wind speed and +/- 5° for wind angle (measured at 19 knots).

This sensor was an immediate success and widely used as an OEM component



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- **2006: the CV3Fm6**

Reducing the weight down from 275 gr to 220 gr
Increased accuracy by 2 (both wind speed and wind angle)



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- **2008: introduction of the new CV7 sensor.**
This model achieves a +/-2% performance for only 100 gr!



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- **2011:** LCJ Capteurs launches the wireless version: the CV7SF ultrasonic sensor!



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2012: CV7-C. The latest generation of ultrasonic sensors:

- data acquisition with 60 measurements per second
- processed data updated 4 times per second
- 700 mm vertical carbon arm
- only 12mA at 12 Volts



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2013: The CANBUS

- Compatibility with NMEA2000 instruments
- Barometric sensor
- Optional connection for a **mast angle sensor**
- Own independent set-up commands



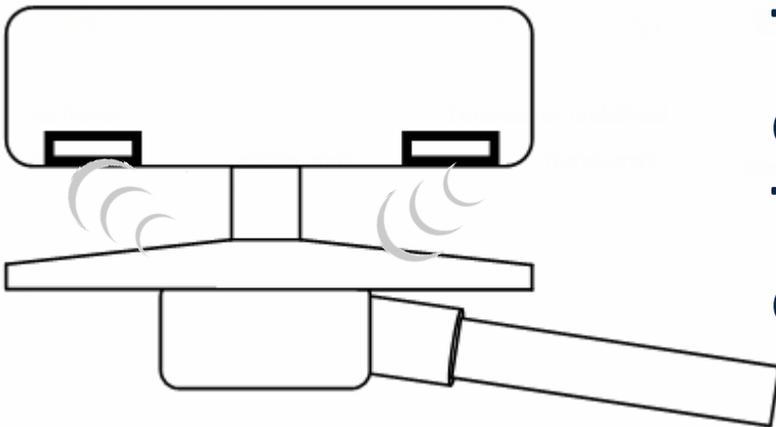
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How does it work?



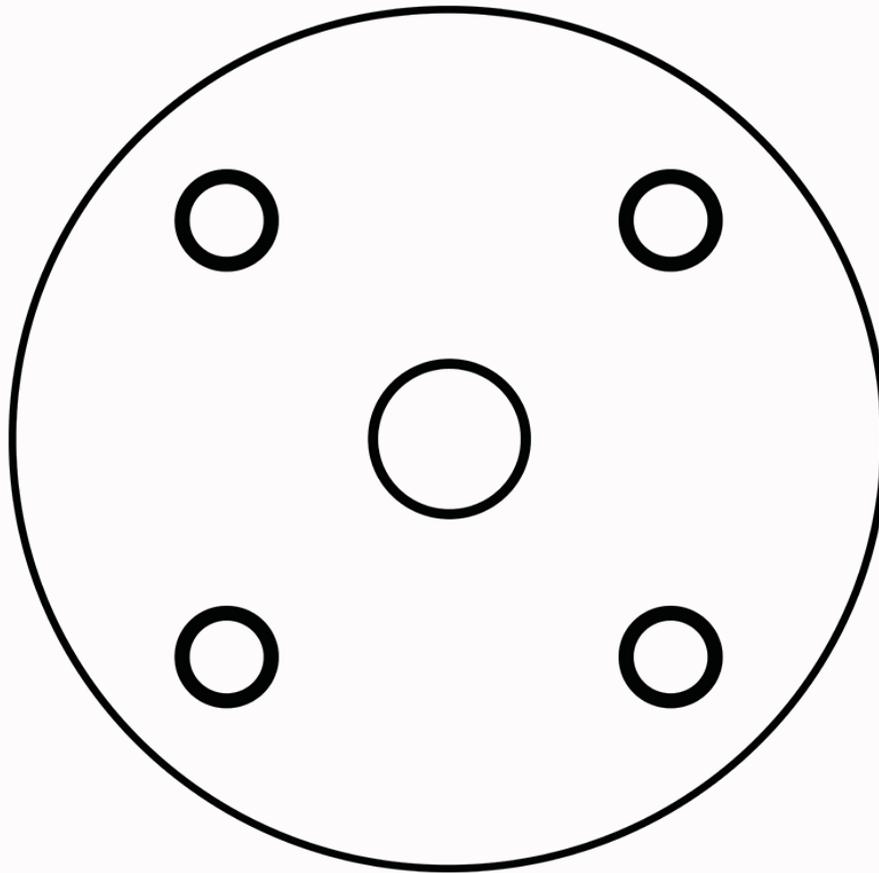
The electro-acoustic transducers
communicate by pairs
They send ultrasonic signals to
each-other

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How does it work?



T : transmit

R : receive

The CV7 transducers
communicate by lateral pairs

This achieves 4 independent
measures

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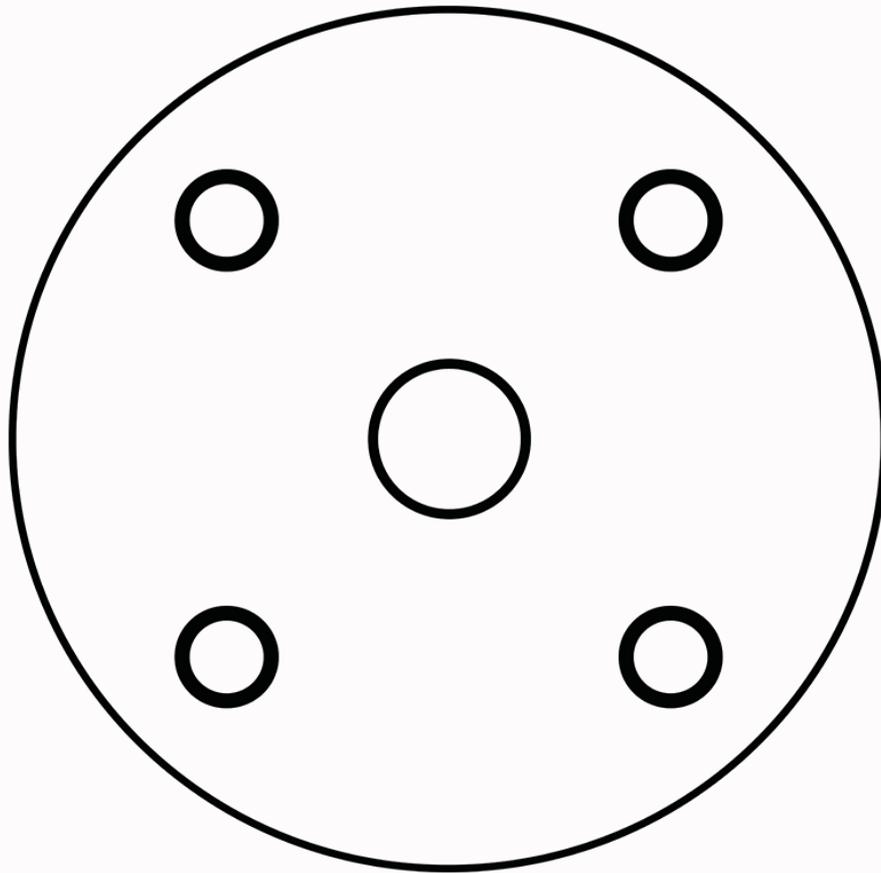
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How does it work?



T : transmit

R : receive

This method brings:

- perfect linearity
- 0.25 knts sensitivity
- Accuracy up to 80 knts

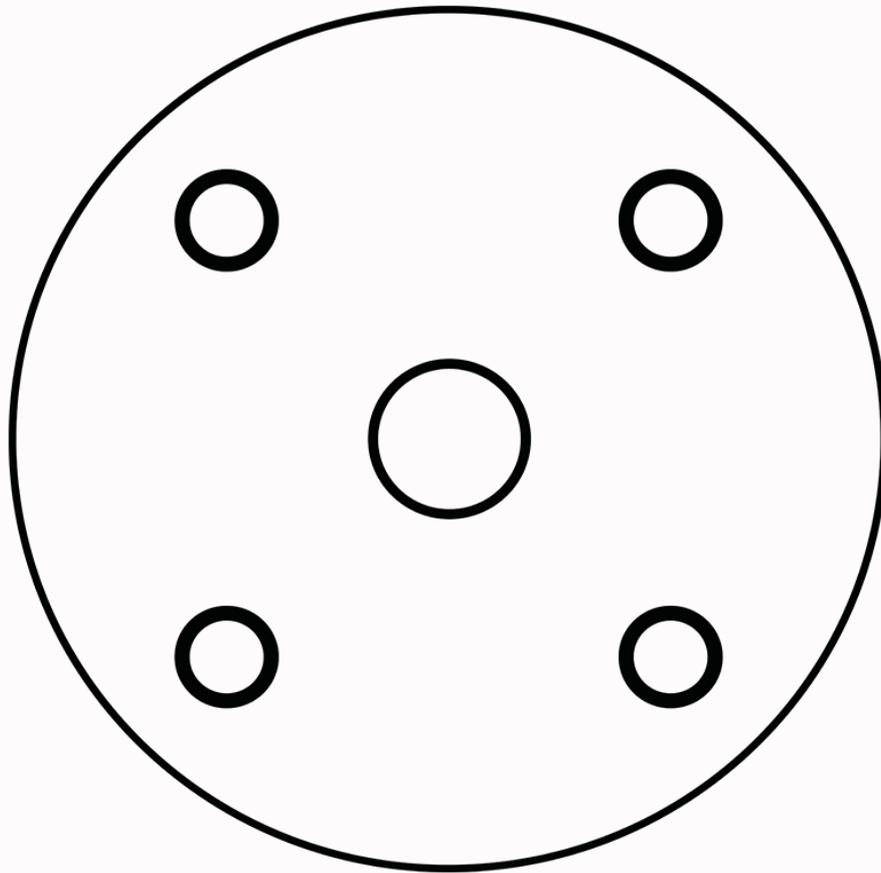
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How does it work?



T : transmit

R : receive

This method brings:

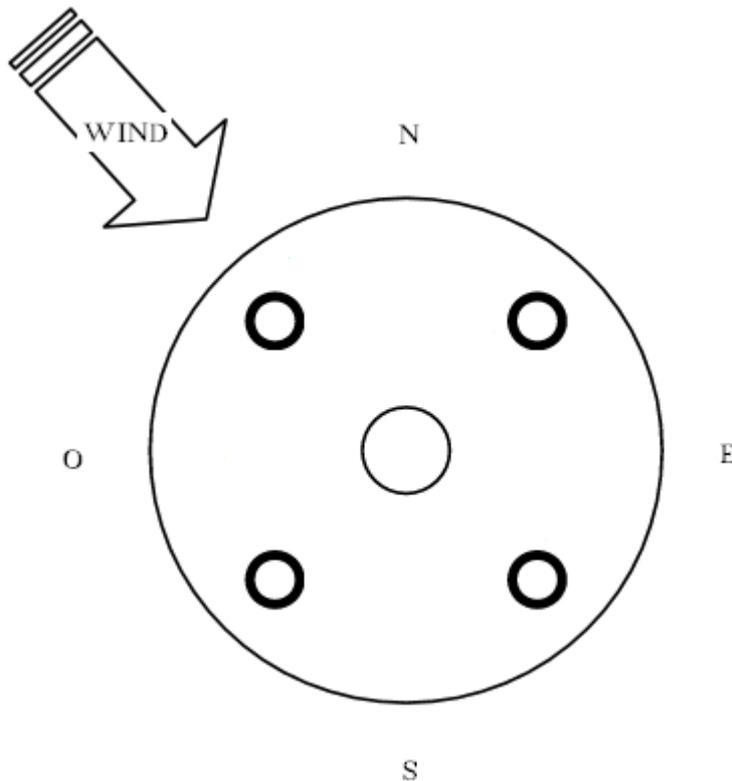
- Checksum increased
- Up wind vectors are prioritized

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How does it work?



The waves transfer times is related to the air flow
4 vectors are measured

The data are processed by an integrated processor.
Wind speed and direction is set to a reference line

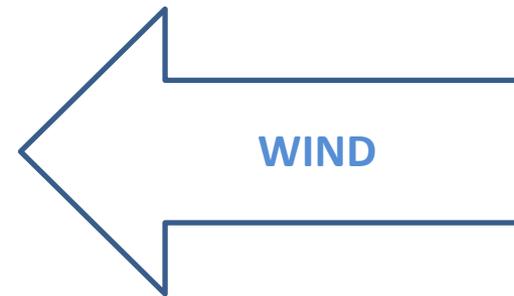
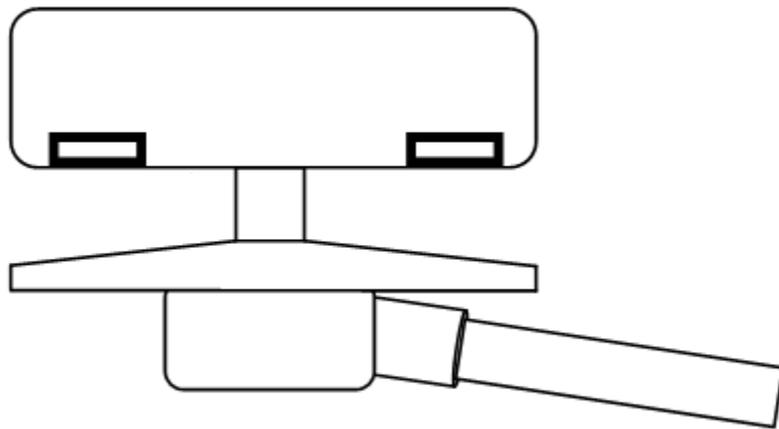
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The shape of the unit creates a measure space that compensate the angle of the wind flow to the sensor



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The products range: CV7

CV7SF	Wireless Wind Sensor. Photovoltaic cells for transmitter. 1 sentence per second day-light, 1 sentence every 3 seconds at sunrise and sunset, 1 sentence every 13 second at night. Comes with sensor, receiver, stainless steel brackets and manual
CV7	Ultrasonic Wind Sensor mast head unit with 25 m cable. Vertical mounting
CV7-V	Ultrasonic Wind Sensor mast head unit with 25 m cable. Standard mounting
CV7-C	High speed Ultrasonic Wind Sensor mast head unit with 25 m cable. 4 Hz. Standard mounting



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The products range: CV3F

CV3F 12V	Ultrasonic Wind Sensor mast head unit with 25 m cable. Standard mounting. Comes with connection box, mounting instructions
CV3F-AL 24V	Ultrasonic Wind Sensor mast head unit with 25 m cable. Standard mounting. Comes with connection box, mounting instructions



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The products range: interface options

Option CanBus 12 V	Connection box for NMEA2000 compatibility. Includes a barometer sensor
Option ST	Connection box for Raymarine instruments
Option BG	Connection box for BandG instruments
Option Sil	Connection box for NEXUS/SILVA instruments
Option BARO 12 V	Connection box with barometer sensor



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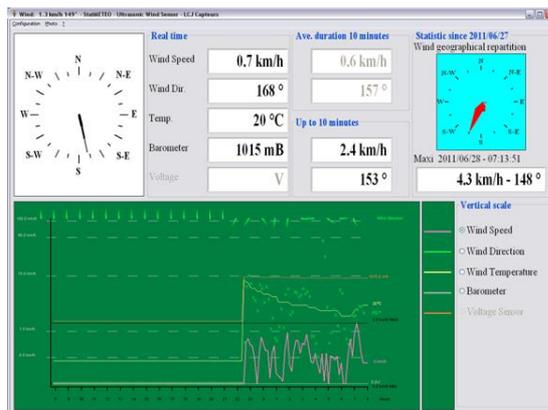
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The products range: softwares

CV7_Config	Freeware for CV7 configuration. Controls the protocol of data output, damping, units for wind speed
StatFixBaro for Windows	Wind data log and display in numeric format
StatFixMETEO for Windows	Wind data log and display in graphic format



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Marine applications

- **Leisure marine**
 - Racing
 - Coaches
 - Cruising
 - Yacht-clubs
 - Sailing schools

- **Fishing vessels**
- **Patrol boats**
- **Rescue boats**
- **Passengers boats**
- ...

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