# Smarty Meteo


## APPLICATIONS

- Roads and traffic meteorology.
- Water sports and sailing.
- Flights centers.
- Beaches and entertainment places.
- Environmental pollution control.
- Ski resorts.
- Water resources control.
- Scientific studies.
- Agriculture.

## KEY FEATURES

- Compact and rugged design.
- Low maintenance.
- Resistant to hostile conditions.
- Unlimited autonomy.
- Integrated communications.
- Without complicated infrastructures.
- Visualization with Smartyplanet.

## MEASURED PARAMETERS

- Wind speed and direction.
- Gusts of wind.
- Rain.
- Temperature.
- Relative humidity.
- Pressure.
- Thermal sensation.

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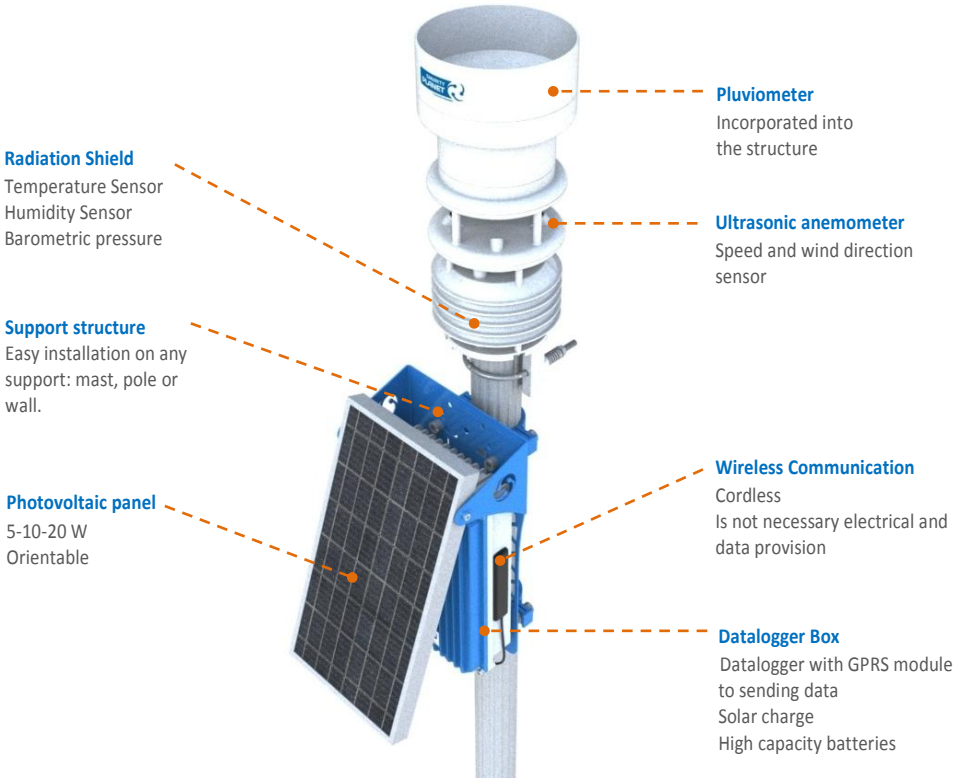
# Compact weather station with high precision

This product has been specifically designed for meteorological monitoring remote applications that needs a **high degree of precision is required in a compact design**. It is the ideal place to meet online environmental parameters from remote locations without the need for expensive and complicated installations.




### Plug and play Installation

The design of this Station allows his installation under the concept ' to plug and play '. He places of simple form on posts, walls or poles, and his entail with the web of visualization is immediate and automatic.

### Without complicated infrastructures

With the different models of station it will be able to create networks of sensors adapted to the needs of his sector, without need of complicated infrastructures not costly.

### Better relation Cost - benefit

The new concept of station of sensors allows to have the best technology to monitor and to control his resources to a cost very lower than other existing alternatives on the market.

### Visualization in web page

The control of the sensors is realized by means of a web application personalized with multiple functionalities as alarms, historical, multiple users, etc.. Accessible from any device connected to Internet.

### Sensors Networks

The number of Stations to linking to his network is unlimited, being able to incorporate different models and configurations to form extensive networks that connect the information of his resources to Internet, to give response to the Smart cities of the future

### Multiple sensors

There are multiple the precision sensors that can join. The model of Station selects depending on the type and I number of sensors that he needs.

# Smarty Meteo
## Specifications

### Mechanical construction
- Support structure stainless steel
- Data collection box aluminum
- Arm integrated sensors accommodation
- Optionalexternalarms for holding sensors
- Overall weight: 7 kg approx
- Photovoltaic power system integrated

### Environmental protection
- Electronic boards with tropicalized protection
- Protection class of all elements: IP-68
- Operating temperature : -50 to +60 ºC
- Shielded cable with steel case
- Tight connections through cable glands
- High durable paint
- Water-repellent treatment of exposed surfaces

### Communications
- GPRS antenna included
- GSM modem integrated
- Data sending interval average severy 15 minutes
- Cloud data stored in secure Data Server
- SIM card including communications
- Fully configured and running.
- Optionally: Inmarsat satellite communication

### Barometric pressure sensor
- Principle: MEMS capacitive
- Range: 610-1100 mbar(hPa)
- Resolution: 0,1 mbar (hPa)
- Precision: 1,7 mbar (hPa)

### Rain Sensor
- Rain gauge incorporated into the structure
- Orifice diameter: 160 mm
- Resolution: 0,2 mm

### Relative Humidity Sensor
- Type: capacitive
- Range: 0-100 % HR
- Resolution: 0,1 % HR
- Precision: ± 5% HR
- Temperature compensation
- Radiation Shield protection

### Wind Direction Sensor
- Type: ultrasonic integrated
- Range: 0º-359,9º
- Resolution: 0,1º
- Precision: <3º RMSE>1m/s
- Measurement intervals: 2s

### Wind Speed Sensor
- Type: ultrasonic integrated
- Range: 0-30 m/s
- Resolution: 0,1 m/s
- Precision: <3,3 m/s o 3% RMS
- Measurement intervals: 2s

### Environmental Temperature Sensor
- Type: NTC
- Range: -50ºC to +60ºC
- Resolution: 0,1ºC
- Precision: ±0.2°C (-20ºC to 50ºC) ±0.2°C (<-30ºC)
- Radiation Shield protection

### Optional Sensor
- Asphalt temperature sensor
- Rain gauge type radar
- Solar radiation
- Leaf wetness
- Visibility
- Snow depth

Arantec Enginheria SL
Avda Pas d'Arró, 5 D 1
25530 Vielha (Spain)

+34 973 640 972
www.smartyplanet.com
info@arantec.com

facebook.com/smartyplanet
twitter.com/smartyplanet