

## PTWS Portable Tactical AWS for defense

*“Top performances easy to use, portable and light solution”*

### System description and main features

The **PTWS** system has been designed and engineered for the field of AWS, defence and military and belongs to the line specifically designed for **advanced applications**.

**NESA** in collaboration with advanced technological partners, working for years in avionics and military, has designed a practical, robust and durable solution, perfectly suited for transportation using a small number of **rugged suitcases** (available in various sizes and on request with **certification ATA 300 IP67 STANAG 4280**).

The configuration of the measurable parameters on **PTWS** is widely customizable, based on each specific request, being able to integrate any type of digital sensor due to the **immediate recognition of connected devices** without any special or specific interface. The standard of **PTWS** provides sensors for the measurement of following parameters: **wind speed and direction** (biaxial sonic or mechanical sensors), **temperature and air humidity, air pressure, global solar radiation, precipitation** (both solid and liquid). The **PTWS** can be equipped with **self-diagnostic function sensors** and specific sensors (for example **visibility sensor, ceilometers, present weather, freezing rain detector, snow level** sensor and any other kind of measuring device) can be installed and used together with the base standard equipment.

The **PTWS** provides also a specific solution for a incredible reduction of volumes and weights during transportation and normal use: the station is supplied with a portable light **“rollable pole - ” made in carbon fibre, weight <1.9 kg**, two layers with maximum top load charge 20 kg; the particular product has a transport dimensions of about 15x20cm and includes metal pegs, fixing base, clamps for sensors fixing, and three tie-rods for fixing to the ground.



*rugged suitcases*



*3-5m rollable tube*



### System composition and technical informations

The **PTWS** system can be used into specific applications and in particular for meteorological and prevention purposes: the **special "AV" line of sensor and devices** is used, and is equipped with features that make **PTWS** suitable of running each component and ensure data quality and continuity of sampling even in the most extreme atmospheric conditions. Sensors and acquisition system have **wider operating working conditions** than the standard, and can be equipped with additional devices to improve or further extend the performance (for example through the use of special materials and silicone cables). The ease of use and configuration of the system, along with the various and **multiple modes of data transmission also simultaneously** (LAN, serial, GPRS, IRIDIUM, GOES, and so on), provides an effective service and maximum support in all those conditions which require flexibility of use, very low operating space, installation time for operation and removal as much as possible reduced (**normally lower than 15 minutes**, depending from configuration and environmental conditions).

Robust and flexible clamps are supplied to fix arms and sensor to the light tube, and all connectors **IP68** are installed in the back of the box, including the inputs for the power supply, Ethernet port and the USB port.

#### Standard sensors and devices for PTWS:

- **ANESB-AV** sonic biaxial anemometer, output RS485 ASCII floating point, (with self-diagnostic function and/or calibration according to ISO/IEC 17025 on request).
- **UTA-AV** combined temperature and humidity sensor, output RS485 ASCII floating point, (with self-diagnostic function and/or calibration according to ISO/IEC 17025 on request).
- **BAR-QNH** electronic barometer, automatic calculation of QNH, output RS485 ASCII floating point, (with self-diagnostic function and/or calibration according to ISO/IEC 17025 on request).
- **RSG1-AV** first class pyranometer, output RS485 ASCII floating point, (with self-diagnostic function and/or calibration according to ISO/IEC 17025 on request).
- **PL400-AV** class A tipping bucket rain gauge, output RS485 ASCII floating point, (self-diagnostic function and/or calibration according to ISO9001 on request).
- **TMF500-AV** Data collector and multichannel Linux device with web-server on-board, standard communications: Ethernet and RS232/RS485 included.
- Enclosure **IP66 stainless steel** painted military **RAL 6003**
- Backup battery, **self-recognizing** power supply system.



Are you looking for rugged, smart, portable and flexible AWS?

Contact our Sales Department at [info@nesasrl.it](mailto:info@nesasrl.it) to receive the best quotation and fully customizable solution to your request.