

## **WEATHERPAK® 2000**

### **Customizable Portable Weather Station Designed for Extreme Environments**

#### **What is a WEATHERPAK® 2000 Weather Station?**

WEATHERPAK® is the world's leading professional quality portable weather station because the WEATHERPAK® platform is suitable for a variety of applications, including shipboard and floating platforms, scientific research, military operations and emergency response.

WEATHERPAK® is a very rugged, self-contained portable weather station that allows the requirements (or limitations) of your project to determine the station design. Typical measurements include wind speed and direction, air temperature, relative humidity and barometric pressure. In addition, three or four additional environmental conditions such as solar radiation, rainfall, visibility, cloud height, etc., can be monitored. Sampling rates and data transmission rates are user configurable. A WEATHERPAK® equipped with GPS can even provide *true* wind speed and direction on a moving vehicle or vessel.



*Solar powered WEATHERPAK®  
in Atacama, Chile*



*WEATHERPAK® buoy near  
Hong Kong airport*



*Military Humvees with vehicle  
mounted WEATHERPAK®s*



#### **Why choose a WEATHERPAK® 2000 Weather Station?**

**Designed to withstand the harshest environments** – WEATHERPAK® electronics are hermetically sealed and will survive the most challenging environments on earth: polar, desert, rainforest, etc. WEATHERPAK® 2000s are tested and meet or exceed MIL-STD-462D using MIL-STD-810F.

**Quick and easy set-up** – WEATHERPAK® typically can be deployed in 30 to 60 seconds and self-aligns to True North using an internal electronic compass.

**Many telemetry options** – UHF, VHF, GSM, satellite, spread spectrum, Ethernet, fiber optic, etc.

**Several mounting solutions** – portable three meter tower, vehicle mounts, and permanent towers, etc.

**Power options** are available – AC, DC, battery, solar power, etc., or a combination all with power back-up.

**Met-Expert™** – Sophisticated self-diagnostic firmware tests system electronics and each sensor to verify accurate performance.

**Hardware Watchdog Timer** – automatically re-boots the entire system when a disruption, such as lightning or other surge, occurs.

**WEATHERPAK® offers many data displays: 4x20 character LCD display, large screen, vacuum fluorescent screen, and full color touch screen.**

## Specification Summary:

A typical WEATHERPAK® is equipped with wind speed and direction, air temperature, relative humidity and barometric pressure sensors; the following features are available in addition to these sensors.

### Analog

- Six single-ended or three differential  $\pm 18$ -bit inputs.
- One channel available at  $\pm 12$ -bit A/D.

*Accuracy and linearity are provided over a wide temperature range as follows:*

- Linearity:  $\pm 0.001\%$  ( $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ).
- Basic radiometric accuracy:  $\pm 0.05\%$  ( $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ).
- Wide dynamic input range:  $\pm 5$  mV to  $\pm 5$  V in 10 ranges.

*All analog inputs are fault-protected against shorts, overvoltage, transients and ESD.*

### Digital I/O Ports

- Two Schmitt trigger inputs. Six general purpose input or output channels.
- One comparator input. One switch closure (event counter).

*Digital inputs can be configured for frequency, period, count, or event counting. Digital outputs can provide control or alarm signals.*

### Sensor and Auxiliary Power Outputs

- Reference outputs: one fixed, for sensor signal offsets.
- Power outputs (switched): One channel of  $+12\text{V}$ ; one channel at  $700$  mA; two channels at  $150$  mA.

### Serial Communication Ports

*Three hardware serial communication ports which support RS-232, RS-422, RS-485, SDI-12 and TTL level (RF telemetry, modem, cellular, GOES, ARGOS). Universal Serial Interface is user configurable and allows any serial or "smart" sensor to be added to the system.*

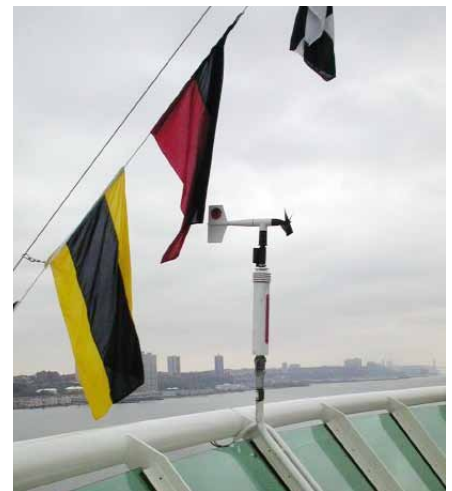
For more information, call: **(800) 488-8291**  
or email: [Marketing@CoastalEnvironmental.com](mailto:Marketing@CoastalEnvironmental.com)



WEATHERPAK® on portable three meter tower



Military WEATHERPAK® with additional visibility sensor



This cruise ship features WEATHERPAK®'s port, starboard and aft