

## FEATURES

- Easy installation
- Plug & Play operation
- LCD display
- Universal software
- Scientific accuracy
- Calibration certificates
- Automatic ET calculation
- Communication options
- Modular and expandable
- Plain text data format
- Two-year warranty
- Low cost

## APPLICATIONS

- Agricultural research
- Aerial spraying
- EPA monitoring
- Farm management
- Horticulture
- Meteorology
- Pollution monitoring:
  - Air quality
  - Water quality
- Severe weather warning:
  - Golf courses
  - Forest fires
  - Frost alarms
- Viticulture



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# EnviroStation™

## Low-cost highly accurate meteorology

Scientific companies throughout the world have spent years trying to produce weather stations that are both cost-effective and easy to use.

The results have been mixed with many low-cost weather stations failing to produce accurate data.

Continuing its commitment to scientific excellence, ICT International has addressed this problem with the creation of the EnviroStation™ - a powerful multiparameter weather station that is highly accurate yet easy to use and cost-effective.

With 16-bit resolution and between 1 and 3 per cent accuracy across all sensors, the EnviroStation™ is suitable for not only the most professional grower but also the most precise research scientist.

### Easy to use

Featuring Plug & Play technology, EnviroStation™ is extremely easy to use and does not require any knowledge of electronics or computer programming.

To activate the station simply plug in a sensor and press a button. The logger will then automatically identify the sensor type and begin logging data at standard industry intervals.

### Automatic evapotranspiration (ET)

With the use of sophisticated “virtual sensors” EnviroStation™ has no equal. By using the inputs of attached physical sensors, the logger can automatically perform complex calculations and equations such as evapotranspiration (ET).

There is no need to download data and manually calculate ET after the fact. With EnviroStation™ you can access data in real time to make management decisions in the field or review historical data as it is logged at hourly intervals throughout the day.

Although ET is automatically calculated, this doesn't mean that you are locked into using one specific ET equation. You can select from one of three internationally accepted ET equations - Penman-Montieth, Penman-van Bavel or Priestly Taylor.

### Modular and expandable

The EnviroStation™ is much more than just a weather station. It is a modular system with the capacity to be expanded to a full environmental station that can measure up to 250 environmental sensors.

These include sensors for water and air quality, soil moisture, soil temperature, leaf wetness, dew-point frost alarms and sapflow for measuring plant daily water use and



## Communications options

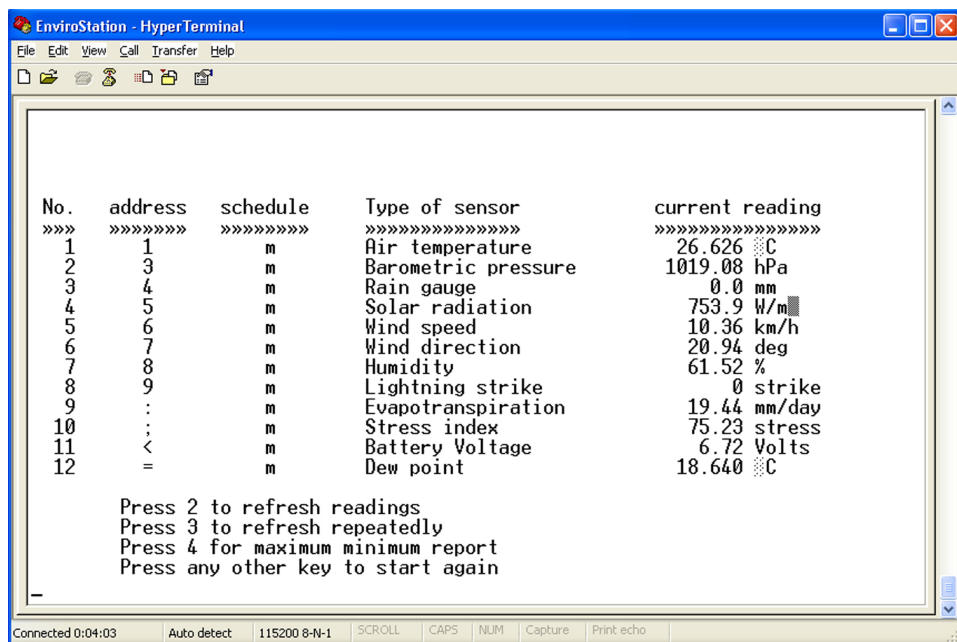
While EnviroStation™ uses standard RS232 communications for downloading data, a full range of communications options are available. These include a memory module or data shuttle for manually transferring data from the field without the need for a laptop; land-line telephone modems; wireless GSM and CDMA modems; and unlicensed radio telemetry packages.

EnviroStation™ can also be configured for audible data reports. This is especially valuable for aerial spraying as it means pilots can dial the weather station for wind speed and direction reports before take-off and throughout the flight. This ensures spraying always complies with EPA regulations.

## Software

EnviroStation™ does not require any special software or programming as each sensor contains all the required information to allow autonomous operation. However, this does not mean rigid inflexibility.

A simple menu system gives complete control over each individual sensor's set-up. With communication via HyperTerminal, compatibility is guaranteed between EnviroStation™ and any PC using Microsoft Windows operating systems from Windows 3.11 to XP. The plain text data file can be easily analysed in any spreadsheet program or more sophisticated statistical packages.



No.	address	schedule	Type of sensor	current reading
1	1	m	Air temperature	26.626 °C
2	3	m	Barometric pressure	1019.08 hPa
3	4	m	Rain gauge	0.0 mm
4	5	m	Solar radiation	753.9 W/m <sup>2</sup>
5	6	m	Wind speed	10.36 km/h
6	7	m	Wind direction	20.94 deg
7	8	m	Humidity	61.52 %
8	9	m	Lightning strike	0 strike
9	:	m	Evapotranspiration	19.44 mm/day
10	:	m	Stress index	75.23 stress
11	<	m	Battery Voltage	6.72 Volts
12	=	m	Dew point	18.640 °C

Press 2 to refresh readings  
Press 3 to refresh repeatedly  
Press 4 for maximum minimum report  
Press any other key to start again

## Installation

EnviroStation™ is simple to install using a 2m mast with a cross-arm and freestanding base that can be pegged into level ground for temporary installations or permanently bolted to a concrete base.

Assembly involves simply securing the hex nuts that attach the cross-arm and base together, then attaching and plugging in the sensors. Pressing the search button automatically registers the new sensors and completes the EnviroStation™ set-up.

Instantaneous readings from sensors can be viewed on the logger's display directly in the field without the need for a laptop or other equipment - there is no guesswork.

## SPECIFICATIONS

### Datalogger:

**Operating Range:** -20 to + 60°C

**Accuracy:** +/- 1%

**Resolution:** 16-bit

**Sampling Rate:** Minimum period 1 second, maximum period 24 hours. Each sensor's sampling rate can be set individually.

**Number of Channels:** 250

**Memory:** 512KB Flash memory

**Enclosure:** IP68 rated

**Dimensions:**

170mm x 145mm x 90mm

**Weight:** 2.5kg

**Features:** LCD display, Plug & Play functionality, 2m serial communications cable and manual.

### Sensors:

**AIR TEMPERATURE**

**Range:** -20°C to +60°C

**Accuracy:** 0.1°C

**Resolution:** 0.01°C

**RELATIVE HUMIDITY**

**Range:** 0 to 99%

**Accuracy:** +/- 2% over full range

**Resolution:** 0.1%

**WIND SPEED**

**Range:** 0.2 to 60 m/s

**Starting threshold:** 0.1 m/s

**Resolution:** 0.001 m/s

**Accuracy:** +/- 2%

**WIND DIRECTION**

**Range:** 0.01°C to 359.99°

**Accuracy:** +/- 0.5°

**Resolution:** 0.01°

**SOLAR RADIATION**

**Range:** 0 to 2000 W/m<sup>2</sup>

**Accuracy:** +/- 5% over range

**Resolution:** 0.1%

**RAIN GAUGE**

**Range:** 720mm rainfall/hour

**Switch closure:** reed switch

**Resolution:** 0.2mm

### Power Supply

**Battery Type :**

Sealed lead acid 6V 7Ah

**Battery life:** three months

**Solar Panel:**

5W 12V with mounting kit

### Enclosure

**IP Rating:**

IP68 fully enclosed and environmentally protected

### Mounting apparatus

**Mast:** 2m x 50mm x 50mm

tubular steel with cross-arm

**Base:** 50 mm x 50mm tubular

steel freestanding base

### System packing

**Dimensions:**

1380 mm x 460 mm x 520 mm

**Weight:** 12.5kg