



Envirodata

WeatherMaster 2000 (WM20)

- Measures:**
- * Rainfall
 - * Wind Speed
 - * Wind Direction
 - * Air Temperature
 - * Relative Humidity
 - * Solar Radiation
 - * Evaporation Rate (calculated)

Features:

- Sigma Theta Calculation for air pollution studies
- Provision for seventh sensor (optional)
- Provides current readings, 15 minute, hourly and daily data (or customised to your logging schedule)
- Solar powered, durable stainless steel and powder coated aluminium construction
- Complete package, with solar panel, batter, data logger powder-coated steel mast and windows based graphing, database and reporting software included
- Stores 100 days of daily summary, 65 days of hourly data and approximately 20 days of 15 minute data.
- Utilizes pulse counting technology, and continual monitoring (not sampling) to ensure true weather conditions are measured and recorded

Applications

- Environmental monitoring
- Industrial monitoring
- Agricultural monitoring
- Scientific research
- Dust, spray, odour and pollutant movement monitoring (when optional AirData software (AD40) is added).

Communication and Remote Monitoring Options

- Cable connection to personal computer or laptop
- Hand-held display/download device
- Standard telephone link (phone line with modem)
- Digital mobile (GSM/CDMA) link
- Radio links
- Ethernet connection to access the weather station from anywhere in your network
- Web connection for live display of your data, and for accessing the data world-wide

One spare sensor

One optional sensor can be connected up to 100 m away to allow the WeatherMaster 2000 to be customized to suit your application.



Easy to use, Compact & Portable

Thanks to its innovative integrated design, the WeatherMaster 2000 is easy to carry to site, easy to set up, and will operate immediately. The system is solar powered and self-contained, so that it can be sited almost anywhere.

There are no electrical connections to be made and minimal mechanical assembly. Just mount on the post provided, switch it on, set north and your environmental monitoring will commence.

Weather Records

Daily Summary:

RAINFALL - Total
WIND SPEED – Max, Average
WIND DIRECTION – Average
AIR TEMPERATURE – Min, Max, Average
RELATIVE HUMIDITY – Min, Max, Average
SOLAR RADIATION - Average

Hourly Summary:

RAINFALL - Total
WIND SPEED – Average
WIND DIRECTION – Average
AIR TEMPERATURE – Average
RELATIVE HUMIDITY – Average
SOLAR RADIATION - Average

15 Minute Summary:

RAINFALL - Total
WIND SPEED – Average
WIND DIRECTION – Average
AIR TEMPERATURE – Average
RELATIVE HUMIDITY – Average
SOLAR RADIATION - Average

Envirodata Environmental Monitoring & Management

P.O. Box 395, WARWICK, Queensland, 4370, Australia

Phone: (07) 4661 4699

Int. Phone: + 61 7 4661 4699

Email: sales@envirodata.com.au

Fax: (07) 4661 2485

Int. Fax: +61 7 4661 2485

<http://www.envirodata.com.au>



Specifications

Sensors

Air Temperature: -15.0°C to + 60.0°C

Accuracy +/- 0.2°C at 25°C

Resolution 0.1 °C

Relative Humidity: Electronic capacitance type

Accuracy +/- 3% for 0-90%;

+/- 4% for 90-100%

Range 0-100%. Resolution 0.1%

Rainfall:

Tipping bucket mechanism

0.2mm resolution

Wind Speed:

3 Cup 66mm Anemometer

Rating:- 70m/sec

Resolution 0.1 kph

Starting threshold 1 kph

Wind Direction: Hall Effect Sensing

Resolution 2 degrees

Accuracy +/- 2 degrees

Active range 0 – 359 degrees

Solar Radiation: Global incoming radiation with cosine correction:

Accuracy: +/- 5%

Cosine corrected accuracy: +/- 3%

Extra Sensors (Optional – one only):

Barometric pressure, leaf wetness, soil temperature, grass temperature, or any of the above as an additional sensor (excluding Rainfall). Interfaces for voltage, current, resistance available on request.

Data Recorder

Memory

Data stored into 4 independent memory areas.

104K battery backed RAM - stores a total of 29,000 data readings (plus time & date stamp records).

System Indicator

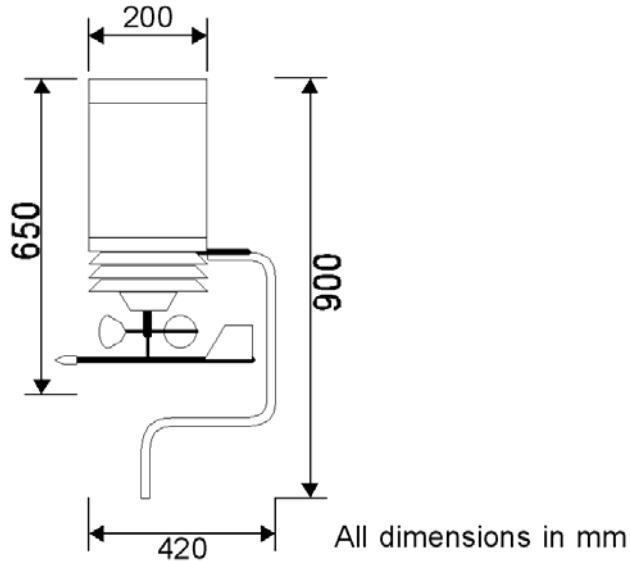
- 1 Second flash - Communicating with computer
- 2 Second flash - Normal (logging mode)
- 4 Second flash - Sensor out of range, program fault or flat battery

Battery

6 volt 3.0AH internal sealed rechargeable gel cell - capacity for 6 weeks' operation without sunlight.

Power Consumption

5mA in logging mode. 50mA while communicating. 1mA in shutdown mode.



Solar Charger

1.1 watt panel - maintains battery with one hour of bright sunshine per day.

Weight

Complete system is 7 kg (excluding mounting bracket)

Lightning Protection

Software failure as a result of nearby lightning strike initiates an automatic circuit 'watch dog' to restart the logger within seconds, ensuring data storage is uninterrupted.

Programming

Delivered with standard schedule loaded so that it operates immediately. At any time you can select alternative schedules (supplied on CD) or create your own.

Software

Windows EasiAccess software included in the WM20 package. (EasiAccess) EA40 contains weather station management functions, database and full reporting and graphing options. EasiAccess Software operates on 486 and above operating Windows 98, 2000 & XP. Pentium preferred.

RS232 Connection

6 pin (serial RS232C standard). DTR, DSR, TX, RX, ground & power. 300 to 9600 Baud

Envirodata Environmental Monitoring & Management

P.O. Box 395, WARWICK, Queensland, 4370, Australia

Phone: (07) 4661 4699

Int. Phone: + 61 7 4661 4699

Email: sales@envirodata.com.au

Fax: (07) 4661 2485

Int. Fax: +61 7 4661 2485

<http://www.envirodata.com.au>

Issue: 23052007042003