



# Spectrum WatchDog 3250 WiFi/Cellular Evapotranspiration (ET) Weather Station

## Product Images



## Short Description

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### **Use real-time ET data to effectively irrigate for optimum yield and quality.**

The fully integrated WatchDog 3250 Wireless ET Station measures temperature, humidity, rainfall, solar radiation, plus wind speed & direction, recording and communicating the data to the cloud using its internal modem or radio. With these sensors, evapotranspiration (ET) can be computed by SpecConnect, so you can know how much water is leaving your fields.

Receive alerts via automated phone call, text message, and/or email immediately when measurements cross your selected thresholds.

View reports of current conditions or historical data from any location.

## Description

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### **Key Features**

- Bluetooth connectivity to your smartphone via the WatchDog Mobile App
- Sends data to the SpecConnect Cloud Solution - View current conditions or historical data using a broad selection of analytical reports from anywhere in the world.
- Integrated solar power
- All models have integrated USB, Bluetooth, and RS232 communications. Select version with either WiFi or Cellular modem.
- Internal data logger holds 18 months of data at a 15-minute recording interval. Data can be transferred to a USB flash drive.
- Easy to install - be running in minutes.
- Choose from a huge range of optional external sensors including soil moisture, UV, leaf wetness and many more.
- Receive the latest changes with over-the-air updates (also available via a USB flash drive).
- Can connect to a Spectrum Retriever & Pup Network.
- The durable enclosure provides moisture, corrosion, and UV protection for increased reliability in harsh environments.
- Designed and manufactured in the USA to provide the quality data you can rely on.

## Additional Information

| Brand                           | Spectrum Technologies  |                        |                           |                        |                                       |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
|---------------------------------|--|------------------------|---------------------------|------------------------|---------------------------------------|----------------------|-------|--|-----------------|---|---|---|---|---------------------------------|--------|-------------------|---|---|---|---|-----------|-----|----------|----------|---|---|---|-------------------------------|--------|------------|---|---|---|---|---------------------------------------|--------|----------------|---|---|---|---|-----------------------|--|-----------------|------------------|------------------|------------------|---|----------------|--|---------------------------------|---|---|---|---|--|--|
| Country of Manufacture          | United States  |                        |                           |                        |                                       |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Explanation                     | <ul style="list-style-type: none"> <li>• <b>External Communication:</b> Cellular, USB, Bluetooth, RS232</li> <li>• <b>External Sensor Ports:</b> 1 x 2.5mm stereo jack (0 to 3.0VDC analog input)</li> <li>• <b>Data capacity:</b> 30,000 data intervals can be stored on the unit before the oldest record is overwritten by the newest data (312 days at 15 minute intervals).</li> <li>• <b>LED:</b> 3-colour (Red, Amber, Green)</li> <li>• <b>Operating Temperature Range:</b> -30° to 55°C</li> <li>• <b>Dimensions (HxLxW):</b> 30.5 x 49.5 x 28.6 cm (without 18.4 cm antenna)</li> <li>• <b>Weight:</b> 4.50 kg</li> </ul> <p><b>Communication Options</b></p> <ul style="list-style-type: none"> <li>• Item 3250WF has a WiFi Modem</li> <li>• Item 3250ME has an LTE-M cellular modem, providing LTE CAT-M1 and NB-IoT communications</li> <li>• Item 3250DR has a Data Recorder - No Modem</li> </ul> <p><b>3000 Series Stations Comparison</b></p> <table border="1"> <thead> <tr> <th></th> <th>3210MU<br/>Temp Alert</th> <th>3220MU<br/>Rain Station</th> <th>3240MU<br/>Weather Station</th> <th>3250MU<br/>ET Station</th> <th>Range</th> <th></th> </tr> </thead> <tbody> <tr> <td>Air Temperature</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-40° to 257°F<br/>(-40 to 125°C)</td> <td>±0.54°</td> </tr> <tr> <td>Relative Humidity</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>0 to 100%</td> <td>±2%</td> </tr> <tr> <td>Rainfall</td> <td>Optional</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>0.01" (0.254mm)<br/>resolution</td> <td>±2% at</td> </tr> <tr> <td>Wind Speed</td> <td>✗</td> <td>✗</td> <td>✓</td> <td>✓</td> <td>0, 1 to 200 mph<br/>(0, 1 to 322 km/h)</td> <td>±2 mph</td> </tr> <tr> <td>Wind Direction</td> <td>✗</td> <td>✗</td> <td>✓</td> <td>✓</td> <td>1-359°, 1° increments</td> <td></td> </tr> <tr> <td>Solar Radiation</td> <td>Opt. (ext. port)</td> <td>Opt. (ext. port)</td> <td>Opt. (ext. port)</td> <td>✓</td> <td>0 to 1500 W/m2</td> <td></td> </tr> <tr> <td>Available External Sensor Ports</td> <td>2</td> <td>2</td> <td>2</td> <td>1</td> <td></td> <td></td> </tr> </tbody> </table> |                        | 3210MU<br>Temp Alert      | 3220MU<br>Rain Station | 3240MU<br>Weather Station             | 3250MU<br>ET Station | Range |  | Air Temperature | ✓ | ✓ | ✓ | ✓ | -40° to 257°F<br>(-40 to 125°C) | ±0.54° | Relative Humidity | ✓ | ✓ | ✓ | ✓ | 0 to 100% | ±2% | Rainfall | Optional | ✓ | ✓ | ✓ | 0.01" (0.254mm)<br>resolution | ±2% at | Wind Speed | ✗ | ✗ | ✓ | ✓ | 0, 1 to 200 mph<br>(0, 1 to 322 km/h) | ±2 mph | Wind Direction | ✗ | ✗ | ✓ | ✓ | 1-359°, 1° increments |  | Solar Radiation | Opt. (ext. port) | Opt. (ext. port) | Opt. (ext. port) | ✓ | 0 to 1500 W/m2 |  | Available External Sensor Ports | 2 | 2 | 2 | 1 |  |  |
|                                 | 3210MU<br>Temp Alert   | 3220MU<br>Rain Station | 3240MU<br>Weather Station | 3250MU<br>ET Station   | Range                                 |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Air Temperature                 | ✓  | ✓                      | ✓                         | ✓                      | -40° to 257°F<br>(-40 to 125°C)       | ±0.54°               |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Relative Humidity               | ✓  | ✓                      | ✓                         | ✓                      | 0 to 100%                             | ±2%                  |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Rainfall                        | Optional   | ✓                      | ✓                         | ✓                      | 0.01" (0.254mm)<br>resolution         | ±2% at               |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Wind Speed                      | ✗  | ✗                      | ✓                         | ✓                      | 0, 1 to 200 mph<br>(0, 1 to 322 km/h) | ±2 mph               |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Wind Direction                  | ✗  | ✗                      | ✓                         | ✓                      | 1-359°, 1° increments                 |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Solar Radiation                 | Opt. (ext. port)   | Opt. (ext. port)       | Opt. (ext. port)          | ✓                      | 0 to 1500 W/m2                        |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Available External Sensor Ports | 2  | 2                      | 2                         | 1                      |                                       |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Ideal For                       | Professional, Agronomy   |                        |                           |                        |                                       |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Measurements                    | Evapotranspiration, Humidity, Leaf Wetness, PAR/Quantum Light, Rainfall, Soil Moisture, Solar Radiation, Temperature, UV, Wind Direction, Wind Speed   |                        |                           |                        |                                       |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Typical applications            | Environmental (Outdoor), Field Research, Weather Monitoring  |                        |                           |                        |                                       |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Power                           | Integrated 3.5W solar panel, rechargeable 6V/4.5AH SLA battery, optional AC/DC power adapter. Battery life 14 days minimum with no solar power.  |                        |                           |                        |                                       |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |
| Installation                    | Simple installation - mounts to a 1.25 inch mast (U-bolts included). Best installed on a tripod (select from 'Mounting Options' above).  |                        |                           |                        |                                       |                      |       |  |                 |   |   |   |   |                                 |        |                   |   |   |   |   |           |     |          |          |   |   |   |                               |        |            |   |   |   |   |                                       |        |                |   |   |   |   |                       |  |                 |                  |                  |                  |   |                |  |                                 |   |   |   |   |  |  |

## Additional Options

|   |  |
|---|--|
| <b>Select Required Data Communication Method</b>                                | LTE-M Cellular Version (SKU: SI-3250ME)  |
|   | WiFi Version (SKU: SI-3250WF)  |
|   | Data Recorder - No Modem (SKU: SI-3250DR)  |
|   | 868MHz Pup Version (SKU: SI-3250DE)  |
| <b>SpecConnect (required for the product to function properly)</b>              | SpecConnect Web Portal - Pro Subscription (1 Year) WiFi                                  |
|   | SpecConnect Web Portal Pro Subscription (1 Year) - Cellular                              |
|   | SpecConnect Initial Setup Fee  |
| <b>Optional Sensors (hold down Ctrl &amp; click to select multiple options)</b> | SpecConnect Phone Alerts 1 Yr Subscription)  |
|   | UV Light Sensor  |
|   | Quantum / PAR Light Sensor   |
|   | 3 Sensor Quantum / PAR Light Bar   |
|   | 6 Sensor Quantum / PAR Light Bar   |
|   | SM 100 Soil Moisture Sensor (with 1.8m cable)  |
|   | SM 100 Soil Moisture Sensor (with 6.1m cable)  |
|   | SMEC 300 (Soil Moisture/EC/Temperature) Sensor with (with 1.8m cable)                    |
|   | SMEC 300 (Soil Moisture/EC/Temperature) Sensor with (with 1.8m cable)                    |
|   | SMEC 300 EC Calibration Device   |
|   | External Soil/Air/Water Temperature Sensor (with 1.8m cable)                             |
|   | External Soil/Air/Water Temperature Sensor (with 6.1m cable)                             |
|   | Tensiometer Pressure Transducer  |
|   | Irrigation On/Off Sensor   |
|   | Temperature Micro Sensor (to measure surface temperature of leaves & other applications) |

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|  | Leaf Wetness Sensor                                    |
| <b>Mounting Options</b>  | Universal Mounting Pole Kit (WS-7717) (Limited Offer)! |
|  | Davis Mounting Pole Kit (DI-7717)                      |
|  | Davis EZ-Mount Tripod (DI-7716)                        |
| <b>Handheld Anemometer (to help you position weather station wind sensor in optimum location for maximum wind)</b> | Kestrel 1000 (Pro-quality, made in USA)                |