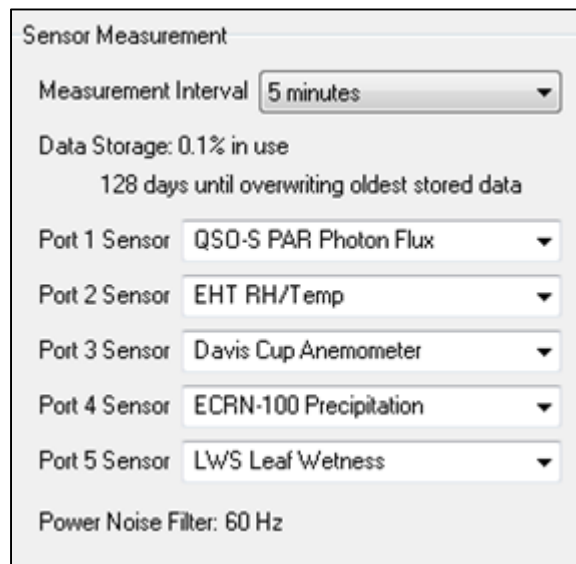


1.4. Selecting measurement interval and sensors

Data recording in the Em50 series data loggers starts when a measurement interval is selected. Measurement interval can range from 1 min (5 min for Em50G data loggers) to 1440 min (1 day). No data will be logged when the measurement interval is set to 'Off (not logging)'. For most sensor types, regardless of the measurement interval selected, the Em50 series data loggers take sensor readings every minute. The 1-minute readings are then averaged and logged when the Em50's internal clock reaches the user-selected measurement interval. The data logger stores the average of all 1-min sensor readings taken since the last data stored (Decagon Devices, Inc. 2014). Readings are taken and recorded for all sensors attached to the five sensor ports.

ECH2O Utility also allows the selection of sensors that will be plugged to each of the five sensor ports in the Em50 series data loggers. A wide range of sensors, including soil moisture and electrical conductivity sensors, sensors for measuring environmental/weather variables, flow meters etc. are compatible with the Em50 series data loggers. A weather node showing a range of environmental sensors is given as an example in Figure 6.

- Select the measurement interval of choice
- Select the sensors types from the drop down menu for each of the five ports. Leave empty ports as "None Selected".



Sensor Measurement

Measurement Interval: 5 minutes

Data Storage: 0.1% in use
128 days until overwriting oldest stored data

Port 1 Sensor: QSO-S PAR Photon Flux

Port 2 Sensor: EHT RH/Temp

Port 3 Sensor: Davis Cup Anemometer

Port 4 Sensor: ECRN-100 Precipitation

Port 5 Sensor: LWS Leaf Wetness

Power Noise Filter: 60 Hz

Figure 6. A weather station node equipped with various sensors for environmental variables.

All new settings/changes that are made to the node configurations are sent to the device by clicking on the “Apply” button. These configurations will be saved by the node until further configuration changes are made.

- Click ‘Apply’ to save all new settings/configuration changes made
- Click the ‘Disconnect’ button (or press F2 on the key board).

The data logger can now be disconnected from the computer. The configuration process is completed and the data logger is ready to be deployed at the desired location.