

Document Number		RG_SPEC-0007	
Title		Weather Stations	
Revision	Date	Prepared By	Change History
1.0	05/18/2011	Chris Brown	Initial Release.

Introduction

MoTeC Systems USA is now offering the Davis Weather Stations for sale. There are two types available, the **Vantage Vue** and **Vantage Pro2**. A comparison table is provided below. Customers will also want to purchase a **WeatherLink** module to connect the weather station to their PC. A math plugin is available to integrate the weather station data directly into the MoTeC *i2 Pro* logged data files!



Feature	Vantage Vue	Vantage Pro2	Vantage Pro2-C
Connection to Weather Console	wireless	wireless	cable
Forecast Time	12 hour	24-28 hr	24-48 hr
Glow in the dark keypad	✓	✗	✗
Detachable anemometer, allows wind sensor to be mounted remotely	✗	✓	✓
Optional Items			
i2 Pro plugin to integrate data	◆	◆	◆
UV & Solar Radiation	✗	○	○
additional temp / humidity	✗	○	○

- ✓ included
- ✗ not available
- optional
- ◆ requires WeatherLink



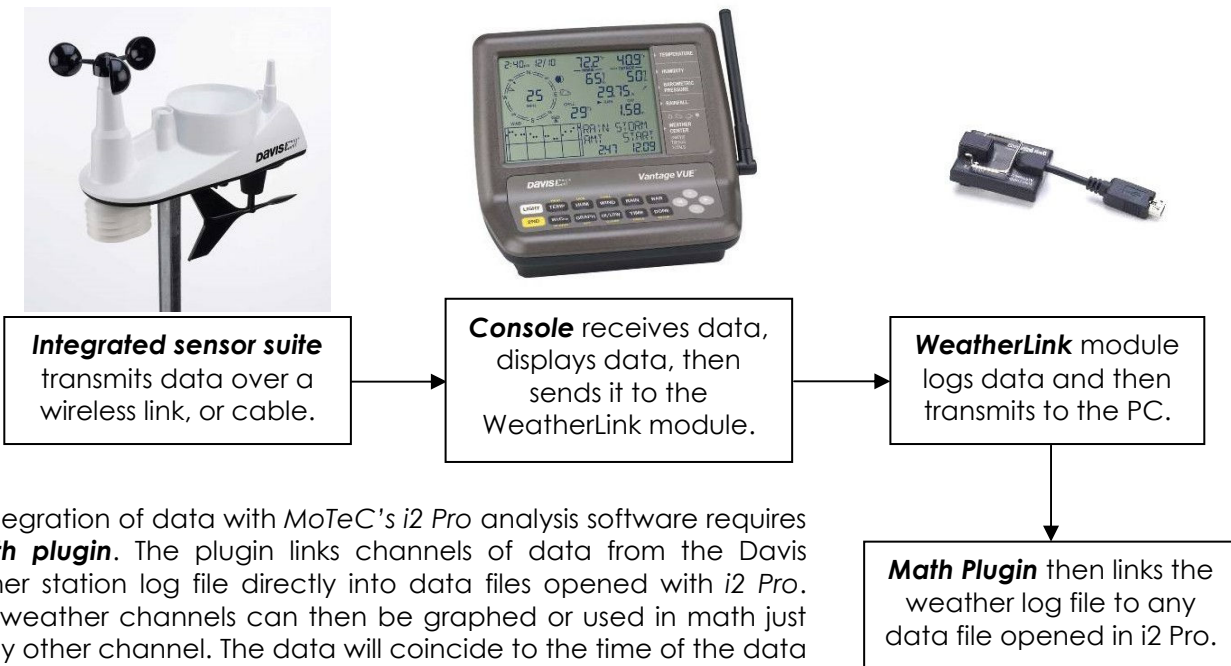
WeatherLink Module

To connect the Davis Weather station to a PC, the **WeatherLink** module is required. It is available in either serial or USB, as well as IP/ethernet.



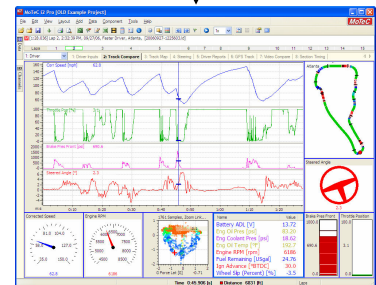
How it Works

The weather console receives and displays weather information from the integrated sensor package for temperature, pressure and wind. If the console has the optional **WeatherLink** module plugged in, then the console will log directly to the memory inside the module. The data can be downloaded to a PC at a later time. The **WeatherLink** module can also send data directly to a PC for both displaying logging while connected.



The integration of data with MoTeC's *i2 Pro* analysis software requires a **math plugin**. The plugin links channels of data from the Davis Weather station log file directly into data files opened with *i2 Pro*. These weather channels can then be graphed or used in math just like any other channel. The data will coincide to the time of the data download, or be synched via GPS time if available in the log file.

When a Davis Weather station is purchased from MoTeC USA, one vehicle license is included for the **math plugin** to work with a single vehicle. This license will work on any computer but limited to the MoTeC device serial number provided at the time of purchase. Additional vehicles, or licenses for Davis Weather stations purchased not from MoTeC USA, can be enabled for an additional fee.



Specifications

- ✓ included
- ✗ not available
- optional sensor
- ◆ requires weatherlink

Parameter	Vantage Vue	Vantage Pro2	Update Rate	Hourly Average	Hourly High	Daily High	Daily Low	Imperial Units			Metric Units		
								Resolution	Range	Accuracy	Resolution	Range	Accuracy
Wind	Wind Speed	✓	2.5 sec	✓	✓	✓		1 mph	2 to 180 mph	5%	1 km/h	3 to 290 km/h	5%
	Wind Direction	✓	2.5 sec	✓				1°	0° to 360°	3°	1°	0° to 360°	3°
	Compass Rose	✓	2.5 sec					22.5°	16 compass points		22.5°	16 compass points	
	Direction of High Spd	✓	2.5 sec					22.5°	16 compass points		22.5°	16 compass points	
Baro	Barometric Pressure (-999 to +15,000 ft)	✓	1 min			✓	✓	0.01" Hg	16" to 32.5" Hg	0.03" Hg	0.1 mbar	540-1100 mbar	1.0 mbar
Temp	Inside Temperature	✓	1 min			✓	✓	0.1° F	32° to 140° F	1° F	0.1° C	0° to 60° C	0.5° C
	Outside Temperature	✓	10 sec			✓	✓	0.1° F	-40° to 150° F	1° F	0.1° C	-40° to 65° C	0.5° C
	Wind Chill	✓	10 sec			✓	✓	1° F	-110° to 135° F	2° F	1° C	-79° to 57° C	1° C
Humidity	Inside Humidity	✓	1 min			✓	✓	1%	1% to 100%	3%	1%	1% to 100%	3%
	Outside Humidity	✓	50 sec			✓	✓	1%	1% to 100%	3%	1%	1% to 100%	3%
	Inside Dew Point	◆	10 sec			✓	✓	0.1° F	-60° to 140° F	3° F	0.1° C	-50° to 60° F	1.5° C
	Outside Dew Point	✓	10 sec			✓	✓	1° F	-105° to 130° F	3° F	1° C	-76° to 54° F	1.5° C
Rain	Rainfall	✓	20 sec					0.01"	0 to 199"	4%	0.2mm	0 to 6553mm	4%
	Rate of Rainfall	✓	20 sec	✓	✓	✓		0.01"/hr	0 to 40"/hr	5%	0.1mm/hr	0 to 1016mm/hr	5%
Solar	Solar Radiation	✗	50 sec	✓		✓		1 W/m ²	0 to 1800	5%	1 W/m ²	0 to 1800	5%
	Solar Energy	✗						0.1 Ly	1999.9 Ly	5%	0.1 Ly	1999.9 Ly	5%
	UV Dose	✗	50 sec	✓		✓		0.1 MEDs	0 to 199	5%	0.1 MEDs	0 to 199	5%
	UV Index	✗	50 sec					0.1	0 to 16	5%	0.1	0 to 16	5%

Ordering & Pricing

Part #	Description	Price
M 6152	Vantage Pro2, WIRELESS	\$595
M 6152C	Vantage Pro2, CABLED	\$495
M 6250	Vantage Vue	\$395
M 6510SER	WeatherLink - serial	\$165
M 6510USB	WeatherLink - USB	\$165
M 6555	WeatherLink - IP/ethernet	\$165
M I2 WEATHER	i2 Math Plugin License*	\$ 50

*one license included in a purchase of a Davis Vantage Pro2 or Vantage Vue.