

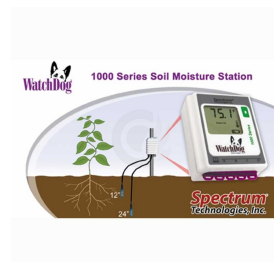


Spectrum WatchDog 1650 Micro Station Data Logger (1 Internal Temp & Humidity Sensor & 4 External Sensor Ports)

Product Images



DESCRIPTION	INTERNAL SENSOR	EXTERNAL PORTS	MAX NUMBER OF WAGO 20 PIN SOCKETS
MODEL 1650 (Rev 2016/01)	TEMPERATURE RELATIVE HUMIDITY	4	2
MODEL 1650 (Rev 2016/01)	TEMPERATURE	4	2
MODEL 1650 (Rev 2016/01)	TEMPERATURE RELATIVE HUMIDITY	2	1
MODEL 1650 (Rev 2016/01)	TEMPERATURE	3	1
MODEL 1650 (Rev 2016/01)	NONE (EXTERNAL ONLY)	4	2
MODEL 1650 (Rev 2016/01)	TEMPERATURE RELATIVE HUMIDITY	NONE	0
MODEL 1650 (Rev 2016/01)	TEMPERATURE	1	0
MODEL 1650 (Rev 2016/01)	NONE (EXTERNAL ONLY)	2	1
MODEL 1650 (Rev 2016/01)	RAINFALL	NONE	0
MODEL 1650 (Rev 2016/01)	REQUIRES EXTERNAL RAINFALL	1	0





Short Description

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Micro Stations are the cost-effective choice for recording environmental conditions. With a huge range of interchangeable sensors available to monitor air/soil temperature, humidity, soil moisture, UV, rainfall and much more; WatchDog 1000 Series Micro Stations deliver vital information for timely, accurate decisions.

Notes: If you only need a data logger with external sensors; please see the other [1000 Series Micro Stations](#). All Micro Stations have 4 sensor ports (as shown in the images); between 0 and 4 of these are functional, dependent on the model.

Additional Information

Brand	Spectrum Technologies
Measurements	Barometric Pressure, CO2, Humidity, Leaf Wetness, PAR/Quantum Light, Rainfall, Soil Moisture, Solar Radiation, Temperature, UV, Water Temperature
Typical applications	Datalogging, Environmental (Indoor), Environmental (Outdoor), Field Research, Weather Monitoring
Explanation	<ul style="list-style-type: none">• In addition to the internal temperature & humidity sensor, you can attach up to four optional external sensors (select the sensors you need from the 'Optional Sensors' above)• LCD screen displays current sensor readings and battery level• Select measurement intervals from 1 to 60 minutes• Log 10,584 intervals (220 days at 30 minute intervals), 8,064 intervals with virtual channels enabled (for SMEC 300 soil moisture, EC and temperature sensor)• Data is stored in fail-safe non-volatile memory• Water-resistant case• Transfer data with a data transmission cable (included with the SpecWare software package), or Data Shuttle
Ideal For	Agronomy
Batteries	1 x CR2450 (12 month life) included
Power	Battery only
Compatibility	View a WatchDog Product Line compatibility chart (PDF) to ensure you are selecting the correct model for your requirements.
Sensors	View the complete range of compatible sensors and accessories (PDF) . To purchase these, select from the 'Optional Sensors' / 'Other Accessories' above.
Software	<ul style="list-style-type: none">- Requires SpecWare 9 Basic or Pro (v9.2 or later) software.- Download the accumulated data at your convenience. SpecWare will present the data in graphical and tabular form.- Use the software to calculate growing degree days and chill hours, and/or view daily, monthly, and yearly reports.- Optional disease models can assist you with Integrated Pest Management decisions.- The Pro version is required for disease models and custom reporting.

Installation	<ul style="list-style-type: none">- We offer a water-resistant Sliding Enclosure and a Waterproof Enclosure to protect your micro station from the elements.- For outdoor and greenhouse use, the WatchDog station must be placed in a Radiation Shield to protect it from solar radiation and other sources of reflected heat. The radiation shield also protects the station from rain. Select from the 'Other Accessories' above.
Specification	Temperature measurement range: -40 to 85°C. Accuracy: $\pm 0.6^{\circ}\text{C}$ at -20 to 50°C, else $\pm 1.2^{\circ}\text{C}$ RH range: 0 - 100%. Accuracy: $\pm 3\%$ at 25°C within 10 - 90% RH, else $\pm 5\%$ Operating Temperature Range: -30° to 55°C

Additional Options

Software Version	SpecWare 10 Pro Software
	SpecWare 10 Basic Software
Optional Plant Disease and Insect Alert Modules for SpecWare 9 Pro Software (hold down Ctrl & click to select multiple options)	Apple/Pear Alert Package
	Grape Alert Package
	Tomato Alert Package
	Potato Alert Package
	Cherry Alert Package
	Turf Alert Package
Other Accessories (hold down Ctrl & click to select multiple options)	Radiation Shield
	Sliding Enclosure to protect Micro Station
	Waterproof Enclosure
	Data Shuttle
Optional Sensors (hold down Ctrl & click to select multiple options)	Silicon Pyranometer Sensor
	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)
	Soil Moisture Sensor (with 6.1m cable)
	Soil Moisture Sensor (with 1.8m cable)
	Tipping Bucket Rain Collector
	Tensiometer Pressure Transducer
	Irrigation On/Off Sensor
	Barometric Pressure Sensor
	Temperature Micro Sensor (to measure surface temperature of leaves & other applications)
	Leaf Wetness Sensor
	CO2 Sensor
Mounting Options	Universal Mounting Pole Kit (WS-7717) (Limited Offer)!
	Universal Crank-shaped Mounting Pole Kit (WS-7715-CRANK)
	Davis Mounting Pole Kit (DI-7717)
	Davis EZ-Mount Tripod (DI-7716-00)