

110-WS-25x Modular Weather Stations

The **110-WS-25 Modular Weather Stations** are user-friendly systems for data collection and real-time monitoring. Each system includes a logger, selected sensors, and a tripod. The logger is simple to operate, includes an LCD display, and is programmable without connecting a computer. Sensor readings are recorded on a 512MB Secure Digital (SD™) card along with the time and date. A USB memory card reader is included.

110-WS-25 with Desktop Enclosure

- Wind Speed & Direction
- Air Temperature
- Relative Humidity
- Barometric Pressure
- Precipitation

110-WS-25N with NEMA Enclosure

- Wind Speed & Direction
- Air Temperature
- Relative Humidity
- Barometric Pressure
- Precipitation

110-WS-25P-A with Carrying Case

- Wind Speed
- Wind Direction
- Air Temperature

110-WS-25P-B with Carrying Case

- Wind Speed
- Wind Direction
- Air Temperature
- Relative Humidity



Desktop weather stations include an AC power supply. NEMA enclosures and the portable stations include a battery and battery charger. Optional solar panels and sensors are available. Consult NovaLynx for internet, cellular, and satellite communications.

Display	16 character by 2 line backlit LCD display
User Input	3 momentary buttons
Sensor Inputs	8 analog and 3 digital channels with surge protection
Resolution	12-bit A/D converter on 4 channels, 10-bit on other channels
Input Range	0-5 volts; Connect appropriate resistors for current inputs
Excitation	Internal 5 volt 1% band gap voltage reference
Logging Interval	Adjustable 10 to 16,000 seconds
Memory	512MB SD memory card and USB card reader included
Data Files	Comma Separated Values, daily, filename format: YYYYMMDD.csv
Serial Port	RS232 9-pin connector, selectable baud rate, real-time data output
Clock	Real-time clock, battery backup, accurate to within 10 minutes per year
Power	10 to 30 Volts DC at 20 mA (excluding sensors)
Operating Temperature	-40° to 140° F (-40° to 60° C)

Ordering Information

110-WS-25	Modular Weather Station / Desktop Enclosure
110-WS-25N	Modular Weather Station / NEMA Enclosure
110-WS-25P-A	Portable Weather Station
110-WS-25P-B	Portable Weather Station

Wind Speed (200-WS-02F)

- Range: 0 to 125 mph max (0-56 m/s max)
- Speed Threshold: 1.2 mph (0.54 m/s)
- Speed Constant 1.25 mph = 1 Hz (0.5588 m/s = 1 Hz)
- Accuracy: 1 mph (0.45 m/s) or $\pm 3\%$

Wind Direction (200-WS-02F)

- Range: 0-360°
- Potentiometer Gap: 5° (approximate)
- Vane Threshold: 1.2 mph (0.54 m/s)
- Accuracy: $\pm 3^\circ$



Temperature (110-WS-25THA)

- Range: -40° to +140°F (-40° to +60°C)
- Accuracy: 1.1°F ($\pm 0.6^\circ\text{C}$) @ +68°F (+20°C)

Temperature (110-WS-25T)

- Range: -40° to +140°F (-40° to +60°C)
- Accuracy: 1.8°F ($\pm 1^\circ\text{C}$) @ +77°F (+25°C)

Relative Humidity (110-WS-25THA)

- Range: 0-100% RH
- Measurement range: 10 to 90% (for which accuracy is specified)
- Stability: $\pm 2\%$ RH over 2 years
- Accuracy: Better than $\pm 3\%$ @ +68°F (+20°C)



Barometric Pressure (110-WS-25BP)

- Range: 150-1150 mb (4.43 to 33.96 inHg)
- Non-linearity: $< 1\%$
- Operating temperature: -40° to 80°C
- Altitude offset: User adjustable in logger



Rain Gauge (110-WS-25RG)

- Resolution: 0.01"/tip
- Orifice: 8" diameter (20.5 cm)
- Switch: Dry contact reed switch
- Output: < 0.1 sec switch closure
- Accuracy: $\pm 2\%$ at $< 2"$ per hour

Meets NWS specifications

