

RainWise MKIII-LR-M Long Range Wireless Weather Suite



The MKIII-LR is a wireless, solar-powered weather station. It's original version, the best-selling MKIII, broke the price barrier in 2002 when it was released. It provides the best accuracy of any consumer weather station on the market and includes the capabilities and features desired by knowledgeable weather enthusiasts, with the easiest setup and installation of any instrument being sold today.

Since then, we have worked diligently to improve the performance of the MKIII. We have done just that with the MKIII-LR by dramatically expanding its transmission range to **1.6Km (LOS)***. This distance vastly surpasses other comparable weather stations on the market, where the current long range distance is 100-300m.

Another breakthrough feature for the new MKIII-LR is that it now transmits data every 2 seconds, without delay, so information sent to the LED display or computer interface is virtually real-time. It uses spread spectrum radio technology. While the range may vary due to environmental conditions (such as topography, building walls, snow, etc.), the MKIII-LR far surpasses (by as much as 4X) any other wireless weather station in its class and price range.

The MKIII-LR Sensor Assembly is included in every system as it collects and transmits the data. The solar-charged battery supply is guaranteed to provide continuous operation below 60° latitude and will operate at least 25 days without sun. The passive solar shield for the temperature/humidity sensor is modelled after the National Weather Service design. The solar panel and battery are guaranteed for five years. It's sleek design (just 127mm x 152mm x 686mm, and under 3.2Kg) belies its rugged construction. The extension mounting mast, fabricated from robust UV stable PVC pipe, will fit any standard tripod or TV antenna mount. An attached Rain Gauge can also be included in a system.

The MKIII-CC-LR wireless computer interface records and stores weather data received from the MKIII-LR sensor assembly. Purchase this with the multi-display or instead of. It can be placed anywhere, as it's not connected to the display in any way. The interface has 32K of RAM which allows you to log the weather data at rates from once per-minute to once-per-hour. It will store data up to three months at once-per-hour record rates. Easy to install and use, it also includes an RS-232 cable to interface with your computer serial port. The RS-485 2-wire interface allow you to connect the station to third party Telemetry solutions or ModBus / SCADA interface directly to your PLC /



Product Specifications

WIND SPEED (ANEMOMETER)

Range: 0 - 150 m.p.h.; 0 - 67 meters per second;

0 - 240 Kilometers per hour; 0 - 130 Knots.

Resolution: 1.0 unit.

Accuracy: $\pm 2\%$ of full scale.

WIND DIRECTION

Range: 0-360° (Digital Hall Effect Sensor - no dead band at 0°)

Resolution: 1.0° increments

TEMPERATURE- Outside

Range: -66° to +166° F; -54° to +74° C.

Accuracy: $\pm 0.5^\circ$ F; $\pm 0.25^\circ$ C.

TEMPERATURE- Inside

Range: 32° to +122° F; 0° to +50° C.

Accuracy: $\pm 1.0^\circ$ F; $\pm 0.5^\circ$ C.

RELATIVE HUMIDITY

Range: 0 to 100 % R.H.

Accuracy: $\pm 2\%$ at 25° C. Temperature compensated from -40° to 85°C

DEW POINT

Range: -40° to +140° F.

Accuracy: $\pm 2^\circ$ F, $\pm 1.0^\circ$ C.

TEMPERATURE/HEAT INDEX

Range: To 160° F, 71°C.

Accuracy: $\pm 2.0^\circ$, $\pm 1.0^\circ$ C.

WIND CHILL

Range: to -127° F; to -88° C.

Accuracy: $\pm 2^\circ$ F, $\pm 1.0^\circ$ C.

BAROMETER

Range: 16.3 inches Hg. to 32 inches Hg; 551 to 1084 millibars (hPa), absolute reading. Digital offset for site altitude.

Accuracy: ± 0.05 inches Hg; ± 1.69 millibars (hPa). Temperature compensated from -40° to 85°C.

RAINFALL

Range: Unlimited Tipping bucket with 8 inch diameter collector.

Resolution: 0.01"; 0.25 mm.

Accuracy: $\pm 2\%$ at 1.5 inches per hour.

TRANSCEIVERS

Range: may be reduced by walls or other RF absorbing structures.

Each MKIII-LR system will transmit over 1.6 Km LOS*.

Frequency: 2.4Ghz

Update/sample Rates: Every 2 seconds, no delay.

* Line of sight is defined as an unobstructed view from transmitter to receiver. Obstruction between the transmitter and receiver may affect overall range.

Warranty Information

The MKIII-LR, the Weather Oracle® and the MKIIICC-LR Computer Interface have a 2-year warranty. An **extended 5-year warranty is available**. The solar panel and battery are warrantied for 5 years.