

# Wind

# Met Station MS-130<sup>™</sup>

Wireless Weather Station

**DATA SHEET** 

#### FEATURE SUMMARY

- Preconfigured weather station
- · Solar powered
- · Air temperature
- · Relative humidity
- · Heat index
- · Barometric pressure
- Wind speed and direction
- · Wind gust
- Density altitude

- DyaconLive<sup>™</sup> Web Portal
- Weather Underground® compatible
- USB and SMS configuration
- · Integrated cell phone
- · SMS text message reports
- · Data logging
- · Email of log data
- · FTP of log data



Shown with optional tripod.

#### DESCRIPTION

**Dyacon Meteorological Station MS-130**<sup>TM</sup> is a preconfigured weather station; no programming or professional services are required.

 $MS-130^{TM}$  is a private weather station suitable for fixed or temporary installations. It includes a full range of instruments for automatic weather observations.

 $MS-130^{TM}$  is equipped with an embedded cell phone mechanism. Weather reports may be requested through simple text messages, providing a reliable and universal weather report interface.

 $MS-130^{TM}$  may also be connected to programmable logic controllers (PLCs) or PCs (adapter and software required) using the Modbus RS-485 slave port.

When used with a cell phone data plan, **MS-130**<sup>™</sup> automatically uploads weather data to your Weather Underground<sup>®</sup> or DyaconLive<sup>™</sup> account. This gives operators a low-cost, reliable web service for graphing and tracking weather parameters.

Dyacon weather stations are suitable for:

- Small airports and landing strips
- Waste management
- Temporary event support
- Remote industrial site monitoring
- Public service
- Education

## KEY FEATURES

**Controller:** A weather station control module integrates the data logger, sensor inputs, LCD display, USB port, Modbus slave ports, solar charge controller, and cell phone on a single circuit board. The integrated circuit board increases reliability, improves installation simplicity, and reduces cost.

**Construction:** MS-130 $^{TM}$  uses Dyacon modular sensors to build a solution that is unique, expandable, and serviceable.

**Connectors:** Wire connections use pluggable terminal blocks for easy and secure wiring.

**Wireless Data:** An embedded cell phone provides direct SMS text message reports as well as data communication features.

**Web Portal:** DyaconLive<sup>™</sup> web portal and Weather Underground compatibility ensures easy and intuitive access to weather data wherever you may be.

**Wired Data:** The control module is equipped with a Modbus slave ports for connecting to data hosting equipment, such as programmable logic controllers (PLCs), SCADA, and computers.

**Installation:** MS-130  $^{\text{TM}}$  is designed to be installed and maintained by the user. Sensors shipped with the unit are preconfigured and tested prior to shipment. Full instructions are provided so that setup can be done without technical support.

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#### **MEASUREMENT CAPABILITY\***

Modbus Host Port 1	WSD-1 - Wind Direction, Wind Speed		
Modbus Host Port 2	TPH-1 - Air Temperature, Relative		
	Humidity, Barometric Pressure		
Analog Port 1	Analog sensor options.		
Analog Port 2	Analog sensor options.		
Counter Input	Rain gauge options.		

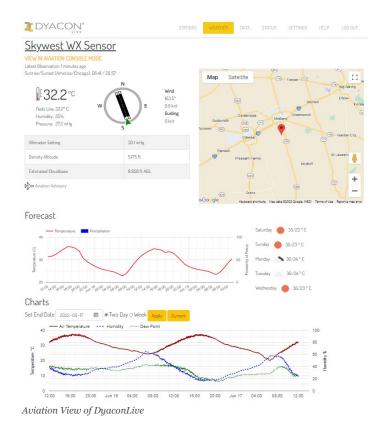
#### OTHER FEATURES

Data Logging	Non-volatile Data Logging
Output	Available for future upgrade of Smart- Fan™ Aspiration Driver.
GPS (Optional)	Integrated GPS-GNSS receiver

### CABLED DATA CONNECTIONS

Modbus Slave (RS-485)	Sensor data for PLC, DCS, BAS, SCADA, data loggers, and computers.
USB Device	Configuration utility. Log data retrieval.

 $<sup>^{\</sup>ast}$  Refer to specific sensor and control module data sheets for detailed specifications for each component.  $^{\dagger}$  Cell phone data service required.



#### WIRELESS DATA ACCESSIBILITY<sup>†</sup>

SMS Text Message	SMS text message reports sent to requesting cell phones. Low battery alerts.
Web Portal	Real-time data throught DyaconLive™ (dyacon.net) and WeatherUnderground.com.
Email	Email of data log file as CSV attachment sent directly from the weather station daily, weekly, or monthly.
FTP	Automatic file transfer of CSV log file to customer server, sent hourly, daily, weekly, or monthly.

#### ELECTRICAL

Power Input	Solar powered. 8 VDC to 26 VDC, 12 VDC nominal
Current	<35 mA avg
Battery	12 VDC, 7 Ah, 1 week autonomous operation

#### ACCESSORIES AND SENSORS

Tripod	Tripod-1 and Quick-deployment Tripod
Aspirator Kit	KIT-ASP-122
Thermistor Probe (Soil)	TSSP-1
Soil Moisture Probe	SMEC-5
Pyranometer	PSP-110
Rain Gauge	RGTB-525 and other tipping bucket rain
	gauges
Globe Temperature	GT-1
Software	Dyacon CM Utility (Free)
	Dyacon Weather Station Display
	Dyacon Weather Connect

Met Station Feature Comparison	MS-120	MS-130	MS-135	MS-140	MS-150
Wind Speed	•	•	•	•	•
Wind Direction	•	•	•	•	•
Air Temp.	•	•	•	•	•
Barometric Pressure	•	•	•	•	•
Relative Humidity	•	•	•	•	•
Data Logging	•	•	•	•	•
Solar Sensor				•	•
Soil/Submersible Temp.					•
Rain Gauge	0	0	0	0	•
Soil Moisture				•	
Integrated Cell Phone		•		•	•
WiFi Transceiver			•		
Weather Underground Upload		•	•	•	•
DyaconLive™		•	•	•	•
Over-the-Air Updates		•	•	•	•
Solar Panel		•	•	•	•
Solar Charge Controller	•	•	•	•	•
Modbus Slave	•	•	•	•	•
USB Device Port	•	•	•	•	•