



# Met Station MS-150™

## Wireless Weather Station

### DATA SHEET

#### FEATURE SUMMARY

- Preconfigured weather station
- Integrated cell phone
- SMS text message reports
- Air temperature
- Relative humidity
- Dew point
- Heat index
- Barometric pressure
- Wind speed and direction
- Wind gust
- Soil temperature
- Solar sensor
- Rain gauge
- USB and SMS configuration
- Data logging
- Weather Underground® upload
- DyaconLive™ Web Portal
- Email of log data
- FTP of log data

#### DESCRIPTION

**Dyacon Meteorological Station MS-150™** is a preconfigured weather station; no programming or professional services are required.

**MS-150™** is a private weather station suitable for fixed or temporary installations. It includes a full range of instruments for automatic weather observations.

**MS-150™** is equipped with an embedded cell phone. Weather reports may be requested through simple text messages, providing a reliable and universal weather report interface.

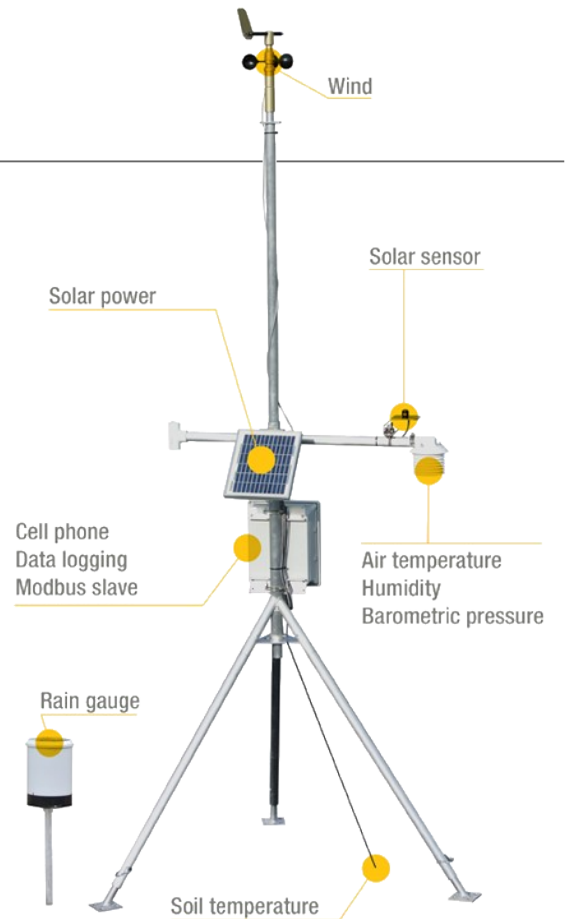
**MS-150™** may also be connected to programmable logic controllers (PLCs) or PCs (adapter and software required) using the Modbus RS-485 slave port.

When used with a cell phone data plan, **MS-150™** automatically uploads weather data to your Weather Underground® or DyaconLive™ account. This gives operators a low-cost, reliable web service for graphing and tracking weather parameters.

Dyacon weather stations are suitable for:

- Environment site assessment
- Weather observers
- Road maintenance
- EPA compliance
- Education
- Rural airports
- Industrial Safety
- Agriculture and livestock
- Media outlets and public information

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(Shown with optional tripod.)

#### KEY FEATURES

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

**Construction:** MS-150™ uses Dyacon modular sensors to build a solution that is unique, expandable, and flexible.

**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 uploads by FTP and email.

**Web Portal:** DyaconLive™ web portal and Weather Underground compatibility provide easy and intuitive access to weather data where ever you may be.

**Wired Data:** The control module is equipped with a Modbus slave port for connecting to data hosting equipment, such as programmable logic controllers.

**Installation:** MS-150™ 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.

## 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	TSSP-1 – Stainless steel submersible temperature probe for soil temperature
Analog Port 2	PSP-110 – Solar sensor (Pyranometer)
Counter Input	RGTB-6 – 0.01” rain gauge

## OTHER FEATURES

Data Logging	Non-volatile data logging
Output	Available for future upgrade of Smart-Fan™ Aspiration Driver

## CABLED DATA CONNECTIONS

Modbus Slave Port (RS-485)	Sensor data for automation controllers and network connectivity.
USB Device	Configuration utility. Log data retrieval. Weather Station Display Software.

\* Refer to specific sensor and control module data sheets for detailed specifications for each component.

† Cell phone data service required.

## WIRELESS DATA ACCESSIBILITY†

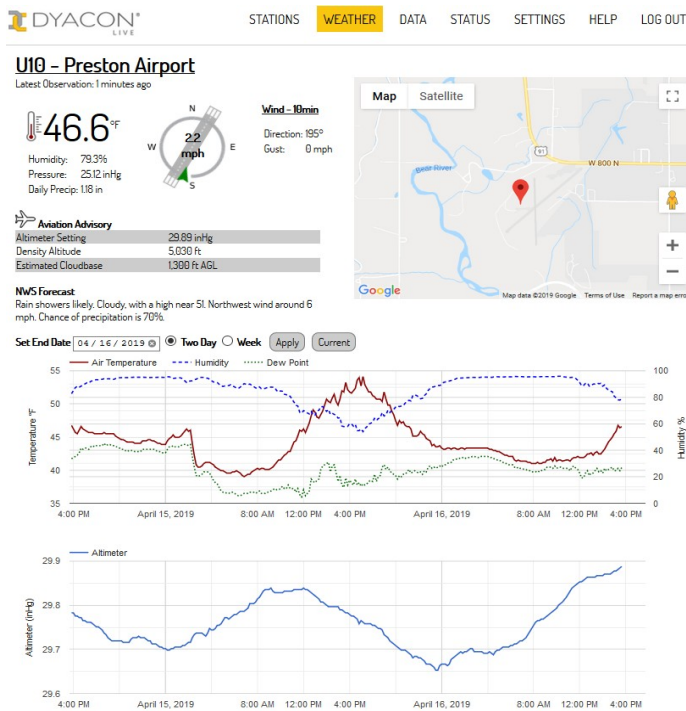
SMS Text Message	SMS text message reports sent to requesting cell phones. Low battery alert.
Web Portal	Automatic direct upload or real-time data to WeatherUnderground.com or DyaconLive™ (Dyacon.net)
Email	Email of data log file as CSV attachment sent directly from the weather station daily, weekly,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

## ELECTRICAL

Power Input	Solar power 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
Aspirator Kit	KIT-ASP-122 (12 V) KIT-ASP-242 (24 V)
Rain Gauge	RGTB-4 (Siphon control for heavy rain.)
Soil Moisture	SMAC-24 – 6 point temp and moisture



DyaconLive with aviation mode enabled.

## 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	•	•	•	•	•