



Met Station MS-140™

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 capture
- Solar sensor
- Soil moisture
- USB and SMS configuration
- Data logging
- DyaconLive™ real-time web portal
- Weather Underground® compatible
- Email of log data
- FTP of log data

DESCRIPTION

Dyacon Meteorological Station MS-140™ is a preconfigured weather station; no programming or professional services are required.

MS-140™ is a private weather station suitable for fixed or temporary installations and for grower applications. It includes a full range of instruments for automatic weather observations.

MS-140™ is equipped with an embedded cell phone. Weather reports may be requested through simple text messages, providing a reliable and universal weather report interface.

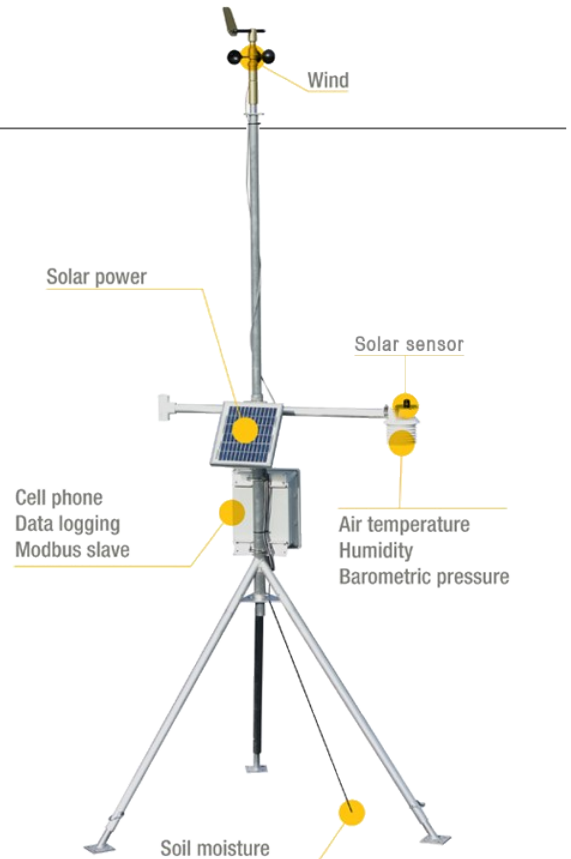
MS-140™ may also be connected to programmable logic controllers (PLCs), remote displays, or PCs (adapter and software required) using the Modbus RS-485 slave port.

When used with a cell phone data plan, **MS-140™** automatically uploads weather data to DyaconLive™ account. This gives operators a low-cost, reliable web service for graphing and tracking weather parameters, including grow-degree days and evapotranspiration irrigation reports.

Dyacon weather stations are suitable for:

- Agriculture and grower applications
- Range land monitoring
- Mosquito abatement
- Golf course management
- Education

Weather Underground® is a registered trademark of IBM. Other trademarks are held by their respective owners.



(Shown with optional tripod.)
Rain gauge can be added.

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-140™ 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 (PLCs).

Installation: MS-140™ 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	PSP-110 – Silicon pyronometer (solar sensor)
Analog Port 2	PSP-110 – Soil moisture probe
Counter Input	Available for future upgrade of rain gauge

OTHER FEATURES

Data Logging	Non-volatile data logging
Output	Upgrade of Smart-Fan™ Aspiration

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†

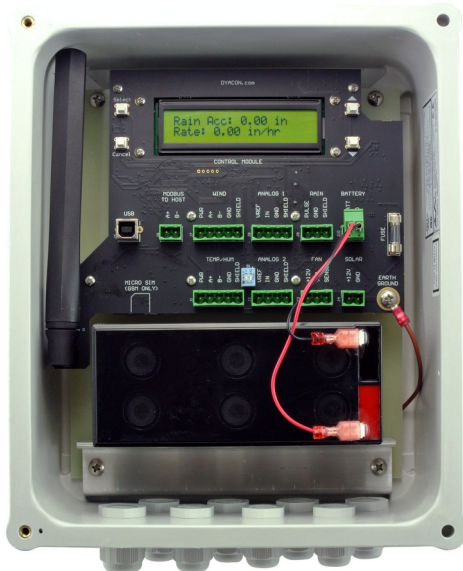
SMS Text Message	SMS text message reports sent to requesting cell phones. Low battery alert.
Web Portal	Automatic direct upload of real-time data to DyaconLive™. Also, <i>WeatherUnderground®</i> compatible.
Email	Email of data log file as CSV attachment sent directly from the weather station daily, weekly, or monthly.
FTP	Automatic file transfer of CSV log file to customer server, sent daily, weekly, or monthly. (<i>AccuWeather®</i> and <i>Vista Data Vision</i> compatible)

ELECTRICAL

Power Input	Solar powered. 8 VDC to 26 VDC, 12 VDC nominal
Current	<30 mA avg
Battery	12 VDC, 7 Ah, 1 week autonomous operation

ACCESSORIES AND SENSORS

Tripod	Tripod-1
Aspirator Kit	KIT-ASP
Rain Gauge	RGTB-4 – Siphon rain gauge RGTB-6 – Standard rain gauge



Control Module/Datalogger

Met Station Feature Comparison

Met Station Feature	MS-120	MS-130	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	•
Soil Moisture			•	
Integrated Cell Phone		•	•	•
Weather Underground Upload		•	•	•
DyaconLive Real-time Web Portal		•	•	•
Over-the-Air Updates		•	•	•
Solar Panel		•	•	•
Solar Charge Controller	•	•	•	•
Modbus Slave	•	•	•	•
USB Device Port	•	•	•	•