



Met Station MS-120™

Cable-connected Weather Station

DATA SHEET

FEATURE SUMMARY

- Preconfigured weather station
- Air temperature
- Relative humidity
- Barometric pressure
- Wind speed and direction
- Lightning detection
- Modbus slave connectivity
- USB configuration
- Data logging
- Solar sensor*
- Rain gauge*
- Submersible thermistor*

DESCRIPTION

Dyacon Meteorological Station MS-120™ is a preconfigured weather station; no programming or professional services are required.

MS-120™ is a wired weather station suitable for fixed installations requiring a Modbus interface.

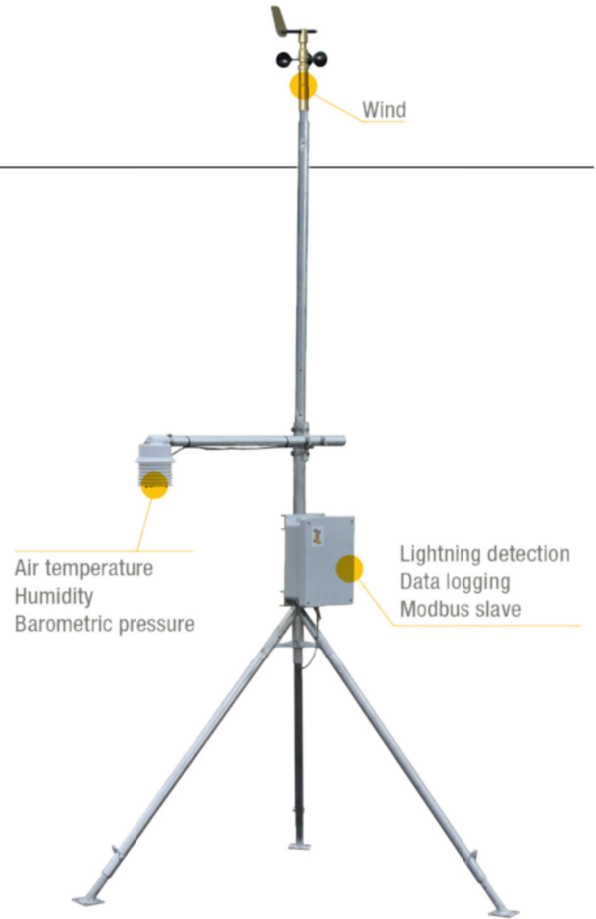
MS-120™ may be connected to programmable logic controllers or PCs (adapter and software required).

Dyacon weather stations are suitable for:

- HVAC accessory
- PLC-compatible weather data
- Agriculture/grower
- Industrial site monitoring
- Public service
- Golf course management
- Education
- Solar power modeling

*Optional features. Not all sensors can be used simultaneously. Contact Dyacon for specific information regarding preconfigured weather station systems.

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(Shown with optional tripod and aspirated air sensor.)

KEY FEATURES

Controller: A weather station control module integrates the data logger, sensor inputs, LCD display, USB port, Modbus slave ports, lightning detection, 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-120™** uses Dyacon modules to build a solution that is unique, expandable, and flexible.

Mounting brackets and hardware are included for mounting the components on 3/4" to 2" pipe or a flat surface. (Tripod sold separately.)

Separate wind and air sensors allow for instruments to be adapted to the specific site's application.

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

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

Installation: **MS-120™** 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	Available for future upgrade.
Analog Port 2	Available for future upgrade.
Counter Input	Available for future upgrade of rain gauge.

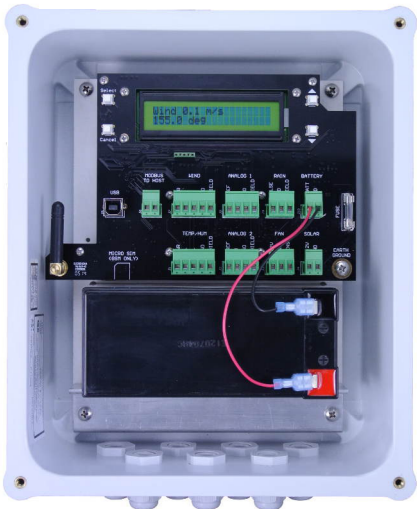
OTHER FEATURES

Option 1	Lightning Detection
Option 2	Non-volatile Data Logging
Output	Available for future upgrade of Smart-Fan™ Aspiration Driver.

DATA INTERFACE

Modbus Slave (RS-485)	Sensor Data – Connect to PLC host equipment.
USB Device	Sensor Data – Connect to host PC. Log Data Control and Configuration

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



Control Module (Wireless version shown.)

ELECTRICAL

Power Input	8 VDC to 26 VDC, 12 VDC nominal
Current	<25 mA avg

ACCESSORIES AND SENSORS

Tripod	Tripod-1
Aspirator Kit	To be released.
Thermistor Probe	TSSP-1
Flat Surface Temp. Sensor	To be released.
Pyranometer	PSP-110
Rain Gauge	RGTB-4 RGTB-6

Met Station Feature Comparison

	MS-120	MS-130	MS-140	MS-150
Wind Speed	•	•	•	•
Wind Direction	•	•	•	•
Air Temp.	•	•	•	•
Barometric Pressure	•	•	•	•
Relative Humidity	•	•	•	•
Data Logging	•	•	•	•
Lightning Detection	•	•	•	•
Solar Sensor				•
Soil/Submersible Temp.			•	•
Rain Gauge				•
Soil Moisture			•	
Integrated Cell Phone		•	•	•
Weather Underground Upload		•	•	•
Over-the-Air Updates		•	•	•
Solar Panel		•	•	•
Solar Charge Controller	•	•	•	•
Modbus Slave	•	•	•	•
USB Device Port	•	•	•	•